

Health and Wellness — Resource Guide for Fruit & Vegetables

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represents our best interpretation of food labeling regulations, but does not constitute legal advice.

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# Section 1:

Understanding Topics of Interest About Fruits & Vegetables

# Websites

From Produce for Better Health Foundation

MoreMatters.org

**PBHFoundation.org** 

Other Resources Safe handling of food: FightBac.org Pesticide residues: Safefruitsandveggies.com Genetically modified foods: GMOAnswers.com





# Disease Preventive Potential of Fruit and Vegetables

A recent literature review, initiated by the German Nutrition Society and published in the *European Journal of Nutrition*, evaluates evidence from various studies and shows a considerable preventive potential of increased consumption of vegetables and fruit on a number of chronic diseases. Study results were classified based on the overall strength of evidence regarding the preventive effect or a lack of an association between specific diseases and the consumption of vegetables and fruit.

### **Overall Findings**

# Based on a comprehensive analysis of the study results, the authors found:

*Convincing evidence* that increasing the consumption of fruit reduces the risk of hypertension, coronary heart disease, and stroke.

#### Probable evidence that

- The risk of cancer in general is inversely associated with fruit and vegetable consumption.
- There is no influence of increased consumption on the risk of type 2 diabetes mellitus, independent of overweight.

#### Possible evidence that

- Increased consumption of vegetables and fruit may prevent body weight gain, perhaps indirectly reducing the incidence of type 2 diabetes mellitus, since overweight is the most important risk factor for this disease.
- Increasing the consumption of vegetables and fruit lowers the risk of certain eye diseases, dementia, and the risk of osteoporosis.
- An increase in vegetable and fruit consumption may contribute to the prevention of asthma, COPD, and rheumatoid arthritis.

*Insufficient evidence* regarding an association between the consumption of vegetables and fruit and irritable bowel diseases, glaucoma, and diabetic retinopathy.

### Discussion

This review shows a considerable preventive potential of an increase in consumption of vegetables and fruit by the general public in respect to a number of diseases. The chain of evidence according to the criteria of a risk-reducing effect with convincing evidence is well reflected in the available data on hypertension, coronary artery disease, and stroke. In contrast to these diseases, the risk-reducing effect of consumption of vegetables and fruit for cancer is assessed to be much smaller than in earlier evaluations, although the authors noted that an analysis of all fruit and vegetables and all cancers, as opposed to certain botanical families or certain cancer sites, can result in loss of information, but those details were beyond the scope of this review.

It should be noted that the strength of evidence neither indicates the degree of risk reduction nor the intake quantity that is necessary to achieve the risk-reducing effect. Such information cannot be derived from the presented data and was not a subject of this review.

#### Conclusion

The risk-reducing effects of vegetable and fruit consumption are primarily the result of the influence of vegetables and fruit and their phytochemicals on inflammatory processes, cellular redox processes, and the endothelial and metabolic processes which are involved in the pathogenesis of various diseases.



This study used the following definitions to evaluate the association between fruit and vegetable consumption and 13 major diseases. These four different terms were assigned to categorize the level and strength of evidence:

**Convincing evidence** At least 2 studies of the highest quality show consistent results **Probable evidence** Not less than 5 very good studies show consistent results but also noticeable weaknesses

#### Possible evidence

At least 3 studies show consistent results while a few other studies may show no risk relation or opposite risk relation.

#### Insufficient evidence

Data is lacking or a majority of the studies showed no risk relation or opposite risk relation.

# Association Between Fruit and Vegetable Consumption and Prevention of 13 Chronic Diseases

#### Hypertension

*Convincing evidence* of the blood-pressure-lowering effect of an increase in the consumption of vegetables and fruit.

#### Coronary Heart Disease (CHD)

- *Convincing evidence* regarding the prevention of CHD by high consumption of vegetables and fruit.
- Protective association between the consumption of vegetables and fruit and the risk of CHD found in cohort studies.
- Intervention studies prove a beneficial influence of vegetables and fruit on metabolic pathways that are associated with the risk of CHD.

#### Stroke

- **Convincing evidence** that a high intake of vegetables and fruit reduces the risk of stroke.
- Favorable influence of the consumption of vegetables and fruit seen on metabolic pathways which also have an impact on the risk of stroke.
- Inverse association indicated in cohort studies between the consumption of vegetables and fruit and the risk of stroke.

#### Type 2 Diabetes Mellitus

- **Probable evidence** that the risk of developing type 2 diabetes mellitus is not influenced by the consumption of vegetables and fruit.
- Vegetables and fruit indirectly influence the prevention of type 2 diabetes mellitus, as consumption might lower the risk of weight gain in adults.

• Risk of diabetes found to be significantly reduced in persons who consumed relatively large amounts of green leafy vegetables. (Other subgroups of vegetables and fruit have not been investigated.)

#### Obesity

- **Probable evidence** that an increase in vegetable and fruit consumption alone does not result in weight loss. Probable evidence that an increase in vegetable and fruit consumption leads to weight reduction, if this replaces food rich in fat or energy.
- **Possible evidence** that an increase in the consumption of vegetables and fruit contributes to weight stability (i.e., no weight increase occurs).
- *Insufficient evidence* available for children and adolescents regarding the association between vegetable and fruit consumption and weight development, due to a lack of intervention studies and the existence of only a few cohort studies showing no risk relation.

#### Cancer

- **Probable evidence** of an inverse relationship between the consumption of vegetables and fruit and the risk of cancer.
- Risk reductions have been observed in some large cohort studies, suggesting that the consumption of vegetables and fruit influences the risk of cancer. This influence is only detectable if there are large differences in the consumption of vegetables and fruit between groups and could appear only in case of high exposure to carcinogens, like in smokers.



#### Dementia

- **Possible evidence** for a reduced risk of dementia with increasing consumption of vegetables and fruit; the consumption of vegetables seems more important than that of fruit.
- Daily consumption of vegetables and fruit compared to rare consumption was associated with a 30% risk reduction of dementia, including Alzheimer's, in one large cohort.
- Studies on cognitive performance suggest an inverse relation to the consumption of vegetables and fruit.

#### Asthma

**Possible evidence** found regarding a protective effect of the consumption of vegetables and fruit in lowering the risk of asthma. Fruit intake seems to be more important than the consumption of vegetables.

#### Osteoporosis

- **Possible evidence** that the prevention of osteoporosis is due to a higher consumption of vegetables and fruit.
- Another comprehensive literature review done by British experts concluded that a protective effect of a high intake of vegetables and fruit on bone health is possible, but the cause of this effect could not be determined.
- Many studies showed a positive association between the quantity of vegetable and/or fruit consumption and markers of bone health.

#### Eye Diseases

• **Possible evidence** regarding the prevention of macular degeneration and cataracts with higher consumption of vegetables and fruit.

Reference: Boeing H, Bechthold A, Bub A, et al. Critical review: vegetables and fruit in the prevention of chronic diseases. *Eur J Nutr* 51:637-663, 2012.

- *Insufficient evidence* exists for the effect of vegetable and fruit intake on the risk of glaucoma and diabetic retinopathy, due to the lack of data.
- One cross-sectional study observed a lower risk for glaucoma with high intake of certain kinds of vegetables and fruit: for example, green collards and kale (-69%), fresh carrots (-64%), and canned or dried peaches (-47%).

#### Rheumatoid Arthritis (RA)

- **Possible evidence** regarding the prevention of RA with a high intake of vegetables and fruit; rating reflects the low number of studies done.
- Some cohort studies show a reduced risk of RA with high consumption of vegetables and fruit.
- In the only available case-control study, a higher consumption of cooked vegetables (2.9 servings/day) was significantly associated with lower RA, while raw vegetables were not effective.

#### Chronic Obstructive Pulmonary Disease (COPD)

**Possible evidence** of the association between high intake of vegetables and fruit and the reduced risk of COPD, based on only a few cohort studies.

#### Chronic Inflammatory Bowel Diseases (IBD)

- *Insufficient evidence* regarding the association between the consumption of vegetables and fruit and the risk of developing IBDs.
- A high intake of fruit is associated with reduced risk of Crohn's disease, based on several case-control studies on Crohn's disease and ulcerative colitis. However, there was no statistical association found regarding vegetables.





# An Overview: U.S. Fruit & Vegetable Consumption Data Sources



More than 80% of all of the fruit and vegetables consumed in the U.S. are eaten in the home. While it is difficult to determine exactly how much comes from home gardens and farmer's markets, there is no question that the bulk of year-round fruit and vegetables that are consumed are purchased from grocery stores, club stores, and supercenters, as opposed to restaurants or eating out. This suggests a huge opportunity to incorporate more fruit and veggies in away-from-home eating establishments, but also highlights the important role that grocers can play in consumer purchasing decisions.



Consumption of fruit and vegetables (combined) is slightly less than 2 cups each day, about half of goal. This has increased over time, with consumers on average eating close to ½ cup more each day than they did 35 years ago. Over that time, there has been a notable increase in fresh produce consumption and a decrease in juice consumption. More recently, population subgroups (children and young adults) have increased overall fruit and vegetable consumption, but much of this gain has been offset by decreases in other subgroups (teens and older adults).

Because several datasets are used to measure and track food consumption, methodological issues sometimes make these data seem inconsistent. For example, some datasets use several days of food diaries, a 24-hour food recall, food frequency questionnaires (which usually only ask about broad categories of fruit and vegetables), eating occasions, or food supply data as a measure of consumption. This results in papers or reports that then refer to annual eatings per capita, times per day, cups per day, with or without food waste, or that may or may not include fried potatoes and legumes. We try to decipher all of this for you here using some of the more popular government or private sector databases.

#### National Eating Trends (NET), NPD Group

Since 1980, the NPD Group has been collecting two-week food diaries of all foods and beverages consumed in or away from home from 2,000 households and approximately 5,000 individuals. The NPD Group measures consumption as 'annual eatings per capita' which is the number of times the average person consumes a product annually. Excluding fried potatoes, NPD reports that per capita fruit and vegetable consumption has declined 7% between 2009-2014; however, this has been driven primarily by decreased consumption of vegetables (-7%) and fruit juice (-14%). The overall fruit and vegetable consumption losses are tied to two significant behaviors: a decline in the dinner side dish for vegetables driven by the desire to simplify meals (including side dish salads which also reduces the use of other salad related vegetables such as tomatoes and cucumbers), and reduced consumption of fruit juice at breakfast.

Progress has been made at increasing fruit and vegetable consumption among consumers under age 40. Unfortunately, consumer groups traditionally most interested in health and who eat



the most fruit and vegetables, including those ages 50 and above, are trending downward in their consumption over time. (See article on page 9 of this Resource Guide for more details.)

#### USDA Food Availability Per Capita Data

Food availability estimates are only a proxy for actual food consumption, but are particularly useful to see trends over time, as noted at the bottom of this page. These estimates measure food supplies from production through marketing channels (including imports, minus exports) on a per capita basis for hundreds of commodities, including fruit and vegetables. Overall, in the 35 years between 1976-2011, annual U.S. per capita availability of fruit and vegetables increased 40 pounds (35 pounds of vegetables, 5 pounds of fruit), slightly less than 2 ounces per person each day. This amounts to about the size of a plum or ½ cup of vegetables each day. Consumption of fresh fruit and vegetables increased by 66 pounds, while canned, frozen (excluding French fries), juice, and dried fruit and vegetables decreased by 26 pounds.

# Behavioral Risk Factor Surveillance System (BRFSS)

BRFSS is a comprehensive, state-level, health-related surveillance system. Six questions about fruit and vegetable intake are included in this telephone survey. Changes in methodology in 2011 do not allow for comparisons to previous years, but based on the 2011 survey, adults in the U.S. consume fruit about 1.1 times per day and vegetables about 1.6 times per day. Centers for Disease Control & Prevention recently issued a *State Indicator Report on Fruit and Vegetables 2013* based on the 2011 survey, which can be found at cdc.gov/nutrition/professionals/data.

U.S. Per Capita Fruit and Vegetable Utilization/Consumption, 1976-2011, (all channels, foodservice, and retail), pounds



Sources: VEGETABLES, USDA/ERS, Vegetables and Melons Situation and Outlook Yearbook, May 2012, and Vegetables and Pulses Outlook, Sept. 2012; compiled by Dr. Roberta Cook, UC Davis. FRUIT, Fruit and Tree Nuts Yearbook, ERS/USDA, 10-31-12; compiled by Dr. Roberta Cook, UC Davis. \*Processed potatoes are not included in this graph.



#### National Health and Nutrition Examination Survey (NHANES)

NHANES, the golden standard, is unique in that it combines interviews and physical examinations of a nationally representative sample of about 5,000 persons each year. The latest published report on fruit and vegetable consumption levels using NHANES data was based on 2003-2004 data and published in 2009.<sup>1</sup> Results indicated that adult men and women both ate .61 cups of fruit daily, and men and women ate 1.39 cups and 1.19 cups, respectively, of vegetables (without fried potatoes).

#### Feeding Infants and Toddlers Study (FITS)

FITS is the largest and most comprehensive dietary intake survey of parents and caregivers of young children birth to four years. This cross-sectional study is conducted by Nestlé and provides information and insights on the diets and eating habits of infants, toddlers and preschoolers living in the U.S. Since the first study in 2002, it has been evident that improvements are needed related to vegetable and fruit consumption among young children. French fries and other fried potatoes were the most frequently consumed vegetable for 15-23 month olds and a significant percentage of children were not consuming any fruit or vegetable portions.<sup>2</sup> Similarly, in 2008, about three out of ten infants and toddlers ages 6-23 months were not consuming a discrete portion of vegetables (i.e. consumed as an individual item and not as part of a food mixure) and one out of four were not consuming a discrete portion of fruit, on an average day.<sup>3</sup>

The data indicates that food patterns are set early in life and fruit and vegetable consumption is lower than desired starting before the age of 1 year.<sup>3</sup>

The next FITS study is currently underway and will provide the latest data on food consumption patterns and associated lifestyle and behaviors among young children.

#### Infant Feeding Practices Study II (IFPS II)

IFPS II was a longitudinal study conducted by the CDC and FDA in 2005-2007 that focused on infant feeding practices throughout the first year of life and diets of women in their 3rd trimester and at four months postpartum. The study found that fruits and vegetables were introduced at a median age of 5 to 6 months, and >90% of infants were consuming fruits and vegetables by 7.5 months of age.



A year six follow-up study was conducted in 2012 to reexamine the earlier participants' health, development and dietary patterns. The age of introduction was not associated with fruit and vegetable intake at 6 years; however, the frequency of consumption in infancy was directly related to the later eating habits. Children who consumed fruits and vegetables less than once daily during late infancy had increased odds of eating these foods less than once daily as 6 year olds.

All of this is to just show why numbers may vary. The bottom line is that Americans are only eating about  $\frac{1}{2}$  of the fruit and vegetables they need to be eating!

References

- Kimmons J, et al. Fruit and Vegetable Intake Among Adolescents and Adults in the United States: percentages meeting individualized recommendations. *Medscape J Med* 11(1):26, 2009.
- Fox MK, Pac S, Devaney B, Jankowski L. Feeding Infants and Toddlers Study: What foods are infants and toddlers eating? J Am Diet Assoc 2004; 104:S22-S30.
- 3. Siega-Riz AM, Deming DM, Reidy KC, Fox MK, Condon E, Briefel RR. Food consumption patterns of infants and toddlers: where are we now? *J Am Diet Assoc* 2010; 110:S38-S51.



# State of the Plate: 2015 Study on America's Consumption of Fruit & Vegetables

PBH commissioned consumer research through The NPD Group to use its National Eating Trends database for the year ending May 2014 to examine current consumption of fruit and vegetables in the United States, including consumption levels by age, gender, life cycle, health segmentation, meal occasion, and form. The research also estimates trends in future consumption and identifies items that should be considered moving forward to help increase consumption. Key findings include:

#### Losses Tied to Key Behaviors

Overall the fruit and vegetable consumption losses are tied to two big behaviors: a decline in the dinner side dish for vegetables, and reduced consumption of fruit juice at breakfast. Staples such as orange juice, lettuce/salad, corn, and green beans have led the declines. Fewer side dish salads also reduces the use of other salad related vegetables such as tomatoes and cucumbers.

Vegetables have long been affected by shifts occurring at the dinner table. Americans have been looking for convenience at the dinner occasion and one way to make things more convenient is to include fewer side dishes in their dinner meal and to include them less often. They are also using fewer ingredients to prepare meals. This, along with steady growth for convenient options like ready-to-eat or frozen main dishes, has hurt vegetable consumption.

### Fruit and Vegetable Consumption Trends

#### **Consumption Levels Mixed**

After a brief rise thru 2009, per capita fruit and vegetable consumption has declined 7% over the past 5 years, this has been driven primarily by decreased consumption of vegetables (-7%) and fruit juice (-14%). If fruit juice is excluded from the overall fruit total, however, there is only a 2% decrease in fruit consumption over the past 5 years. Fruit has seen growth among certain subsets of the population, specifically children of all ages and adults ages 18-44.

In addition, store fresh fruit has grown 4% over the past 5 years. Also, store fresh vegetables, while flat, have grown among PBH's core target of children (10%) and young adults over the past 5 years. Canned has lost favor during this same time period for both fruit and vegetables (-13%). Homegrown is down as well, particularly for vegetables, as is dried fruit.





The decrease in 100% fruit juice consumption could be attributed to any variety of factors, including ongoing interest in consuming low-carbohydrate foods, which peaked a decade ago, and the ever-increasing competitive set of beverages available to consumers that now include flavored water. As one of its key MyPlate messages, USDA also encourages decreased consumption of 'sugar-sweetened' beverages, and consumers often unwittingly include 100% juice in this mix.

Despite losses, however, fruit and vegetables are still a cornerstone of the American diet. In fact, vegetables are 4 of the top 5 side dishes at the in-home dinner meal and fruit is second only to candy as a snack.

#### Fruit Benefits from Breakfast and Snacking

Fruit has enjoyed gains in consumption at breakfast. This is likely because breakfast is a more health related meal and fruit is versatile. For example, berries and bananas have gained favor throughout the day, probably due to their versatility for consumption "as is" and as a topping for cereal or yogurt, or as an ingredient to a smoothie or hot cereal. Fruit also is one of the top two snacks consumed and is growing, especially at the morning snack occasion due in part to American's greater acceptance of snacking.

Children of all ages are consuming more fruit "as is" and with increases at all meal occasions.



# Shifting Demographics of Fruit and Vegetable Consumers

#### Younger Consumers Eating More

While almost all age and life stage groups are consuming fewer vegetables (teens and adult males ages 18-34 are an exception) and less *fruit juice*, some segments are consuming more *fruit* compared to 2009. Specifically:

- Children of all ages are consuming more fruit "as is" and with increases at all meal occasions. Berries, bananas, apples and oranges are driving this increase.
- Adults ages 18-44 are eating more fruit at breakfast, particularly berries and bananas.
- Working Women households and Traditional Families with stay at home moms have shown sizeable increases in fruit consumption over the past 5 years.
- African Americans, Hispanics, and those in the West North Central, Mountain, and Pacific are eating more fruit, as well as households with annual incomes of either \$20,000-\$40,000 or of \$60,000 or more.

# While Still Highest, Older Consumers Trending Down

The overall losses seen in fruit and vegetable consumption have been driven by double digit declines among adults ages 45 and older, and particularly those ages 65 and older, who are the highest fruit and vegetable consumers. In particular:

- Losses for fruit among this population have been driven by: decreases in all main meals, particularly dinner and lunch; fewer consuming them "as is"; and fewer including fruit as a dessert. Losses are driven by bananas and a variety of other fruit.
- Sizable declines for vegetables (1 fewer eating a week per capita versus just 5 years ago) have been driven by lower side dish "as is" use at in-home dinner meals. Lettuce and salad related vegetables, like tomatoes, have been hit the hardest, as have onions, potatoes, and mixed vegetables. Consumption at lunch has declined as well, though vegetables at breakfast have increased slightly.

One possible reason contributing to the losses among older core consumers (ages 50+) is that their dinner meal has changed. American's are preparing 'center of plate' protein meals *less* often. Instead, consumers are opting for more one dish meals like pizza or sandwiches. This then impacts the use of side dishes, of which vegetables are the largest. This shift, combined with the overall long term trend toward simplifying the dinner meal (fewer sides and desserts), has driven declines for older core consumers.



# The Future of Fruit and Vegetable Consumption

#### 4% Growth Expected, Could Be Higher

Consumption of total fruit and total vegetables are expected to grow roughly **4% respectively** in the next 5 years, or roughly the same rate as population growth, resulting in relatively flat per capita consumption.

Fruit and vegetables, as a category is expected to show a much stronger benefit from the aging of the population given the higher consumption rates among older consumers and their higher levels of concern about health and greater incidence of medical conditions. Fruit and vegetables should be poised to flourish rather than just keep pace with population growth. If current food preparation and consumption behaviors among consumers ages 50+, are not modified or changed, the full growth potential of fruit and vegetables will likely not be realized during the coming years. This is due to the negative *generational* (cohort) effect for both fruit and vegetables among older consumers, which means that 50+ year olds today are consuming fruit and vegetables less often than their counterparts ten years ago.

Fruit consumption, excluding juice, is expected to grow by 9% over the next 5 years, and fresh vegetables are expected to grow by 8% overall.

Still, there is a positive generational effect for both fruit and vegetables for those under the age of 40, which bodes well for the long term future of fruit and vegetables. This group is consuming *more* fruit and vegetables than their counterparts a decade ago. Overall, the slight positive *aging* effect (changing life-stages), is expected to offset the slightly negative *trend* effect (changing environment), leaving population growth as the main factor influencing the 4% anticipated growth in the next 5 years for fruit and vegetables.

# 9% Growth for Fruit Excluding Juice and8% Growth for Fresh Vegetables Expected

Fruit consumption, excluding juice, is expected to grow by 9% over the next 5 years, and *fresh* vegetables are expected to grow by 8% overall. When subtracting the 4% anticipated growth due to the expansion of the total population, a 5% *per capita* growth in fruit (excluding juice) and a 4% *per capita* growth in fresh vegetables is expected.

Consumption of total fruit and total vegetables are expected to grow roughly 4% respectively in the next 5 years, or roughly the same rate as population growth, resulting in relatively flat per capita consumption.





## Recommendations

#### Become Relevant Again to Older Consumers

While the focus on moms and children has shown positive results in consumption, fruit and vegetable eatings among older consumers (ages 50+) has declined significantly over the past 5 years. It's concerning that the highest decline in fruit and vegetable consumption has occurred among older consumers who are focused the most on their health. The health benefits of fruit and vegetables should be a sweet spot with this group, but there appear to be some needs that fruit and vegetables are not meeting in terms of their health and daily lives. The older consumers may have also found ways other than consuming fruit and vegetables to address health. Additional qualitative or ethnographic research is needed to truly understand the disconnect and what's driving the severe losses for this older group, recognizing that fruit and vegetables are fighting bigger over-arching needs and competing priorities for health, such as convenience, taste, and price. The drive to simplify meals over the past 30 years has resulted in a significant and negative impact on the inclusion of vegetables at the dinner meal.

#### **Extend Partnerships**

The consumption of fruit and vegetables associated with core foods is declining. However, this decline affords fruit and vegetable marketers an opportunity to partner with companies who prepare and sell the core food groups most often associated with fruit and vegetables such as beef and poultry protein entrées, salads, and Italian dishes. The creation of partnerships between fruit and vegetable organizations and companies representing complementary foods, that have shown solid growth over the last decade, is another strategy to increase the consumption of fruit and vegetables. Yogurt, for example, is a natural pairing for fruit. Vegetables and some fruit work well on pizza. A variety of vegetables can be included on poultry sandwiches and in Mexican food. All of these complementary food groups are also among the fastest growing food items. In retail, there has been a lot of focus on the perimeter of the store, but the center of the store is important and fruit and vegetables can help the center of the store partners provide better meals for consumers.

#### **Remember Pricing Strengths**

Consumers often focus on the price of the fruit or vegetable, but forget that relative to other alternatives, fruit and vegetables are a great alternative for those watching their food budget. Since most fruit and vegetables are consumed in the home, it is important to remember that the price of a home prepared meal is one-third the cost of the average meal away from home. Food marketers and educators can encourage price sensitive consumers to eat more meals at home by showing how the purchase of ready-made meals, and other convenience items from the supermarket, are less expensive than eating out.



Consumers often focus on the price of the fruit or vegetable, but forget that relative to other alternatives, fruit and vegetables are a great alternative for those watching their food budget. Since most fruit and vegetables are consumed in the home, it is important to remember that the price of a home prepared meal is one-third the cost of the average meal away from home.

#### Advance Away-From-Home Dining Opportunities

While food purchased from grocery stores is the bulk of all fruit and vegetables consumed, convenience continues to drive away-from-home eating. Restaurants are an ideal and significant opportunity to help with the growth of fruit and vegetable sales, especially at fast food outlets where a large number of the current population regularly frequent. Also, older adults are eating more away from home, offering an opportunity to reach this population through restaurant venues.

SOURCE:

Produce for Better Health Foundation. State of the Plate, 2015 Study on America's Consumption of Fruit and Vegetables, 2015. Web. <a href="https://pbhfoundation.org/about/res/pbh\_res/">https://pbhfoundation.org/about/res/</a>pbh\_res/</a> >.



# Storing Fresh Fruits and Vegetables for Best Flavor

Store in the refrigerator						
FRUIT	Berries	<b>VEGETABLES</b>	Belgian Endive	Cauliflower	Leafy Vegetables	Radishes
Apples (more	Cherries	Artichokes	Broccoli	Celery	Leeks	Spinach
than 7 days)	Cut Fruit	Asparagus	Brussel Sprouts	Cut Vegetables	Lettuce	Sprouts
Apricots	Figs	Green Beans	Cabbage	Green Onions	Mushrooms	Summer Squashes
Asian pears	Grapes	Beets	Carrots	Herbs (not basil)	Peas	Sweet Corn

- 1. Place fruits and vegetables in separate, perforated plastic bags.
- 2. Use within 1-3 days for maximum flavor and freshness.
- 3. Store each group in different produce drawers in the refrigerator to minimize the detrimental effects of ethylene produced by the fruits on the vegetables.

Ripen on the counter first, then	retrigerate
	ICHIECIAL

1. 7.		oss, store fruits and			2 After viz evi	ng, store in refrigerator and use withi	
Avocados	Kiwi	Nectarines	Peaches	Pears	Plums	Plumcots	

in a paper bag, perforated plastic bag, or ripening bowl on the counter away from sunlight. Ripening fruit in a bowl or paper bag can be enhanced by placing an apple with the fruit to be ripened.

2. After ripening, store in refrigerator and use within 1-3 days.

#### Store only at room temperature

<u>FRUIT</u>	Citrus fruits	Persimmons	VEGETABLES	Garlic*	Peppers <sup>†</sup>	Tomatoes
Apples (fewer	Mangoes	Pineapple	Basil (in water)	Ginger	Potatoes*	Winter Squashes
than 7 days)	Melons	Plantain	Cucumber <sup>†</sup>	Jicama	Pumpkins	
Bananas	Papayas	Pomegranates	Eggplant <sup>†</sup>	Onions*	Sweet Potatoes*	

1. Many fruits and vegetables should only be stored at room temperatures. Refrigeration can cause cold damage or prevent them from ripening to good flavor and texture. For example, pink tomatoes ripen to a better taste and red color if they are left at room temperature. In the refrigerator, they do not turn red, and even red tomatoes kept in the refrigerator lose their flavor.

#### 2. Keep away from direct sunlight.

\*Store garlic, onions, potatoes, and sweet potatoes in a well-ventilated area in the pantry.

†Cucumbers, eggplant, and peppers can be refrigerated for 1-3 days if they are used soon after removing from the refrigerator.

### **Cleaning Your Produce**

Always keep produce separate from raw meat, poultry, and seafood. Never use detergent or bleach to wash produce. Instead, rinse produce under running tap water immediately prior to use, including those with skins and rinds that are not eaten. Washing too far in advance removes some of nature's natural preservatives. However, head lettuce or leafy greens remain crisper when washed right away and then refrigerated. Packaged fruits and vegetables labeled "ready-to-eat," "washed," or "triple washed" need not be washed. Refrigerate all cut, peeled, or cooked fruits and vegetables within 2 hours.

For information on how to store other fruits and vegetables visit FruitsAndVeggiesMoreMatters.org

Source: UC Davis Postharvest Technology



# 10 Tips to Nutritious Eating on a Budget

### 1. Eat at Home

Food purchased from the store — including fresh-cut produce, frozen meals, or prepared foods — is, on average, one-third the cost of eating out so eating at home and packing a lunch are two of the most important things you can do to save money and improve your nutrition (see graph below)! Try packing lunches after dinner (including leftovers) for the next day, so you're ready to go in the morning. No refrigerator at work or school for your lunch? Freeze 100% juice boxes and use them as ice-packs and a beverage.

### 2. Plan and Cook Smart

Planning your meals in advance helps streamline your purchases and ensures that what you buy doesn't go to waste. Prepare and freeze soups, stews, or other dishes in advance to save time and money.

### 3. Reuse Ingredients

Select recipes that make use of similar ingredients to help reduce the size of your shopping list and eliminate waste from half-used ingredients.

### 4. Stick to Your List

Translate your weekly meal plan into a shopping list and don't stray from it. Don't shop while hungry to make it easy to pass tempting foods.

### 5. Use Coupons

Check the local newspaper, online, and at the store for sales, coupons, and specials that will cut food costs.

### 6. Buy in Bulk

Purchasing bulk quantities of foods you buy often can save dollars, especially if items are on sale. (But don't buy bulk or use coupons for items that you don't use or need!)

### 7. Compare Prices

Store brands often provide the same or similar product for a cheaper price, but other brands may be on sale. If your grocer has a membership card, sign up for even more savings.

### 8. Stock Up

When frozen, canned, dried fruit and vegetables as well as 100% juice are available in the home, more fruit and vegetables are eaten. These other forms of fruits and vegetables are as nutritious as fresh, they last longer, and are very convenient.

### 9. Celebrate the Season

Seasonal produce is usually less expensive and at peak of flavor. Some fresh fruit and vegetables don't last long though, so purchase small amounts more often to ensure minimal waste. Overripe fruit is great for smoothies or baking.

### 10. Try Gardening

Plant your own vegetables – in the yard or a pot on the porch. Easy to grow items that can save a lot of money: herbs, peppers, tomatoes, leaf lettuce, and spinach.

### Meal Planning Ideas:

http://www.fruitsandveggiesmorematters.org/healthymeal-planning-with-fruits-and-vegetables

http://www.choosemyplate.gov/budget/sampletwoweekmenus.html

http://www.nestleusa.com/asset-library/documents/ nutritionhealthwellness/balanceyourplate/byp\_budgetmealplans\_final.pdf







# FRESH | FROZEN | CANNED | DRIED | 100% JUICEITALLMATTERS!

# Fruits and Vegetables and Health

It is widely acknowledged that fruits and vegetables are important in a varied, healthy and balanced diet and this has been embedded within national dietary guidelines as a specific recommendation to eat more of these important food groups.<sup>1</sup>

- Epidemiological studies have shown that a high intake of a wide variety of fruits and vegetables is associated with a lower risk of chronic diseases, particularly cardiovascular disease.<sup>2,3</sup> In a meta-analysis of existing cohort studies,<sup>4</sup> those consuming 3-5 servings/day and > 5 servings/day had an 11% and 26% reduction in risk of stroke, respectively, compared with those consuming < 3 servings per day.</li>
- The World Health Organization (WHO) has estimated that insufficient intake of fruits and vegetables causes around 14% of gastrointestinal cancer deaths, about 11% of ischaemic heart disease deaths and about 9% of stroke deaths worldwide.<sup>5</sup>
- Fruits and vegetables are an important source of essential vitamins and minerals and dietary fiber and help to
  increase the nutrient density of the diet. In addition, these plant foods provide other important components such
  as phytochemicals,<sup>6</sup> which are also potentially beneficial to health.<sup>7</sup> Emerging research suggests that bioactive
  compounds present in citrus fruits, for example, may potentially be associated with a reduced risk of stroke.<sup>8</sup>

# All Forms Matter

Buying a combination of fresh, canned, frozen, dried, and 100% juice maximizes nutrition, minimizes waste, saves money, and assures that there is always a variety of fruits and vegetables available. Exclusively recommending one form of fruit or vegetable over another ignores the benefits of each form and limits consumer choice.<sup>13, 14</sup>

Most fat-soluble nutrients, including carotenoids, vitamin A, and vitamin E, are higher in processed fruits and vegetables. This is true, in part, because the mild heat treatment in processed products allows for greater bioavailability of lipid-soluble nutrients. Processed fruits and vegetables may also contain greater nutritional value because some processing cultivars are more nutritious than fresh cultivars, as is the case with tomatoes.<sup>14</sup>

The absorption of lutein found in corn, an antioxidant that may reduce the risks of cataracts and macular degeneration, is also enhanced by heat from the canning process.<sup>15</sup>

From a nutrition and sensory standpoint, recipes prepared with canned and/or frozen ingredients have been rated as comparable to those prepared with cooked fresh ingredients.<sup>16, 17</sup>

Research shows that compared to non-juice drinkers, children who drink 100% juice have higher intakes of vitamins A and C, magnesium, folate, phosphorus, calcium, and potassium – all nutrients that have been identified as frequently under-consumed by these age groups.<sup>18, 19</sup> Dried fruits are a particularly significant source of dietary potassium and fiber. Depending on the specific fruit, they provide other important nutrients like vitamin A and carotenoids (dried peaches and apricots), vitamin K (dried plums), calcium (dried figs), manganese (dried figs), and boron (raisins and dried plums).<sup>20</sup>

Dried fruit is an excellent source of phenolic compounds which contribute to the antioxidant capacity of fruits and vegetables. In fact, the antioxidant capacity is much higher for dried fruit than corresponding values for fresh because the antioxidants are concentrated into a smaller volume during the dehydration process.<sup>20</sup>

In terms of coronary heart disease a comprehensive review of the literature concluded that 100% fruits and vegetable juices had benefits similar to whole fruits and vegetables.<sup>21</sup>

One study demonstrated increased amounts of some key anthocyanins in canned blueberries, a powerful antioxidant, compared to the amounts found in fresh and frozen blueberries.<sup>22</sup>

# Know the Facts

Americans are not consuming even half of their recommended servings of fruits and vegetables despite research outlining health benefits.<sup>9</sup> Barriers to consumption include confusion surrounding pesticides, microbial contamination and food preservation methods, as well as cost. Health professionals, scientists, and the media have a responsibility to share information, based on sound science, to minimize confusion. Having answers to common misperceptions about fruits and vegetables may help overcome some barriers to their consumption.

# Key Barriers to Greater Consumption

When primary shoppers were asked what factors made it most difficult for them to include more fruits and vegetables in meals and snacks, cost was among the highest concerns. In fact, 44% said fruit was too expensive and 35% said vegetables were too expensive.<sup>10</sup> Fresh fruits and vegetables in particular were perceived as most costly, while frozen and canned were favored because they were less costly.

When asked why shoppers don't purchase some forms of fruits and vegetables, concern about artificial ingredients or added preservatives prevailed, with a general perception that canned fruits and vegetables in particular weren't as healthy as other forms.

In a separate study, almost 20% of low income consumers reported that negative messaging about pesticide residues and the use of biotechnology would cause them to either be unsure of what to eat or to reduce their consumption of fruits and vegetables.<sup>11</sup>

Ultimately, consumers believe they can actually achieve their fruit and vegetable consumption goals when they know that they can 'count' all forms toward their daily goal.<sup>12</sup>

### Drink 100% Juice!



There are some general misconceptions about the appropriateness of 100% fruit juice as part of a diet, especially for children. The current scientific evidence strongly supports the nutritional benefits of 100% juice and the weight of the evidence does not support a relationship between overweight and juice consumption.<sup>24, 25, 26, 27</sup> In fact, 100% fruit juice consumption has been associated with American Academy of Pediatrics 100% Juice Guidelines for Children<sup>23</sup>

Age Group	Amount Daily			
Infants twelve months of age and under	No Juice			
Children 1-6 years	4-6 ounces			
Children 7-18 years	8-12 ounces			
Note: Juice should not be fed by bottle to small children				

consumption has been associated with improved nutrient adequacy in children and adolescents.<sup>26, 27</sup> Drinking 100% juice can help children and adults reach daily fruit and vegetable consumption goals.

Remember, there are no added sugars in 100% juice—just the natural sugars found in whole fruit.

### Concerns About Canned Fruits and Vegetables are Unfounded

Shoppers who don't purchase canned fruits and vegetables say it is because they are less healthy and have 'added preservatives or artificial ingredients.' In reality, added sugar or sodium are the primary added ingredients to these products and 'no-sodium' or 'packed 100% juice' versions are readily available.

Concern has also been expressed about the use of bisphenol-A (BPA) found in the lining of canned food containers, despite FDA stating that BPA is safe to use in food-contact materials.<sup>29</sup> In response to consumer concerns, however, many can manufacturers have already discontinued their use of BPA.<sup>30</sup>

The Nutrition Facts panel on canned vegetables must list all of the sodium in the can, despite the fact that much of the sodium is in the water surrounding the vegetables and isn't consumed. Draining the vegetables reduces sodium by 36%, and draining and rinsing lowers sodium by 41%.<sup>31</sup> When purchasing canned vegetables, consumers can also look for labels that say 'reduced sodium,' 'low sodium,' or 'no salt added.'

# U.S. Population Ages 2 Years and Older<sup>26</sup>



Fruits and vegetables do not contribute significantly to Americans' sugar and sodium intake, regardless of the form in which they are consumed.

In fact, all canned, frozen, and dried fruits contribute less than two percent of the added sugar in most Americans' diets, and vegetables add less than one percent of the sodium. $^{32}$ 



Organic fruits and vegetables are not more nutritious than conventionally grown. An analysis of 46 studies published in 2009 determined that "there is no evidence of a difference in nutrient quality between organically and conventionally produced

foodstuffs." The authors reported that a small number of differences in nutrient content existed between organically and conventionally produced foods, but were unlikely to be of public health relevance.<sup>33</sup>

Conventionally grown fruits and vegetables are safe! The U.S. EPA's current process for evaluating the potential risks of pesticides on food is rigorous and healthprotective. The EPA's testing requirements for pesticides used on food are more extensive than for chemicals in any other use category, and include testing targeted specifically to assess the potential risks to fetuses, infants, and children.

The 2010 Pesticide Data Program Annual Summary confirms that pesticide residues in food do not pose a safety concern. Specifically, any residues found in fruits and vegetables are at levels that do not pose risk to consumers' health.<sup>34</sup>

### Healthy Foods are Not More Expensive

When you compare the price of foods by weight or average portion size, vegetables and fruits are less expensive than most dairy, protein, and moderation foods. It's only when you compare price per calorie that less healthy foods are cheaper than fruits and vegetables.<sup>35</sup>

Getting the recommended amount of fruits and vegetables costs as little as 2-2.50 per day. Average prices ranged from under 20 cents to over 20 per edible cup equivalent, depending on the specific fruit or veggie.<sup>36</sup>

# What You Can Do to Help

Consumers need assurance that the most important thing they can do is eat more fruits and vegetables, regardless of whether they are fresh, canned, frozen, dried, or 100% juice.

To find tips and ideas on preparing fruits and vegetables in healthful ways, look to FruitsAndVeggiesMoreMatters.org.

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# The Power of the Pour: 100% Juice

Experts agree that as a complement to whole fruit and vegetables, 100% juice can be a convenient, delicious and nutritious way to squeeze more fruit and vegetables into the day. In fact, the 2015 Dietary Guidelines for Americans more precisely indicate that 100% juice can comprise up to half of the fruit recommendations; heretofore there was no amount of juice specified. This is a positive step given that the steep decline in 100% juice consumption over the past 10 years has hurt overall fruit consumption. Still, some myths persist about the role of 100% juice in a healthy diet.

# **MYTH:** Drinking 100% Juice Leads to Being Overweight.

#### FACT: 100% Juice Can Be Part of a Healthy Diet Without Causing Weight Gain

- The majority of studies show that drinking moderate amounts of 100% fruit juice is not linked to overweight or obesity in healthy adults and children.<sup>1-5</sup>
- With any food and beverage, balance is the key. 100% juice should be enjoyed in moderation.
- Drinking 100% juice can help children and adults reach daily fruit and vegetable goals.<sup>6,7</sup>

#### **MYTH:** 100% Fruit Juice Is Just "Empty Calories."

# **FACT:** 100% Fruit Juice Delivers Nutrition Squeezed from Whole Fruit.

For every calorie, 100% fruit juice packs in more nutrition than many other beverage options.

- Nearly twenty years of research shows that certain juices may be linked to specific health benefits. For example, nearly two decade's worth of research suggest some 100% fruit juice can help support heart health. Some juice can also reduce urinary tract infections.<sup>8, 9</sup>
- Drinking 100% fruit juice is associated with higher intakes of vitamins A and C, magnesium, folate, phosphorus and potassium in children.<sup>6, 7, 10</sup>
- Studies show that children who drink 100% juice have higher quality diets than those who don't drink juice. Overall, those who drink juice consume less solid fats and added sugars and more whole fruit and have the same or higher intakes of total fiber.<sup>11</sup>
- Drinking certain 100% juices may actually give you more healthy plant nutrients than eating some fruit. For example, making 100% grape juice involves crushing whole Concord grapes — including the seeds and dark purple skin — to release polyphenols from the grape. Similarly, research suggests that the actual processing of orange juice and tomato juice make some carotenoids more available to the body as well!<sup>12, 13</sup>

#### MYTH: 100% Fruit Juice is Over Consumed. FACT: Most Americans are not Getting Enough Fruit in All Forms, Including Juice.

- On average per capita consumption of juice for children 4-13 years of age is less than 1/2 cup (3.75 ounces) per day, which is less than the American Academy of Pediatrics allowance of 4-6 ounces of juice per day. Adult consumption is even lower, around 1/3 cup per day.<sup>14</sup>
- Juice accounts for only 2-3% of total caloric intake for children.<sup>15</sup>

# **MYTH:** Whole Fruit is More Nutritious than 100% Fruit Juice.

#### FACT: All Forms of Fruit Fit.

Enjoying a variety of fruit in all its forms including fresh, frozen, canned, dried and 100% fruit juice — can help you get the range of nutrition benefits fruit offers.

- While whole fruit can be a better source of fiber, 100% fruit juice delivers important vitamins, minerals and plant nutrients, such as polyphenols.
- In some cases, drinking 100% fruit juice may actually give you more healthy polyphenols than eating the fruit.

## **MYTH:** 100% Fruit Juice Contains Added Sugar.

**FACT:** 100% on the Label Means Just That — 100% Fruit Juice, No Sugar Added.

- By definition, 100% fruit juice contains no added sugar.
- The grams of sugar listed on the Nutrition Facts Panels of 100% fruit juice are naturally occurring fruit sugars only.

American Academy of Pediatrics 100% Juice Guidelines for Children <sup>16</sup>					
Age Group Amount Daily					
Infants 12 months of age and under	No Juice				
Children 1-6 years	4-6 ounces				
Children 7-18 years 8-12 ound					
Note: Juice should not be fed by bottle to small children					

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# Impact of Limiting Language in Recommendations on Fruit and Vegetable Consumption

During a time when consumers are not eating even half of their recommended amount of fruits and vegetables, Produce for Better Health Foundation (PBH) commissioned research to measure the impact of recommendations with inclusive vs. limiting language on consumers' perceptions of, and intent to purchase, various forms of fruits and vegetables.<sup>1</sup>

An on-line survey of 1,200 consumers was conducted in October 2015.<sup>2</sup> Half of respondents were exposed to inclusive recommendations for increased intake of fruit and vegetables and the other half were exposed to limiting language that reinforced fresh produce intake at the expense of packaged forms. All were then asked a series of questions after being exposed to both sets of recommendations.

### -Research Results -

#### **Perception of Healthfulness**

The words we use impact consumers' perceptions of the healthfulness of packaged fruits and vegetables:

- **Inclusive language** more strongly and consistently reinforces the healthfulness of all forms of fruits and vegetables fresh, frozen, canned, 100% juice and dried.
- Limiting language that over-emphasizes the benefits of fresh fruits and vegetables, compared to packaged forms, detracts from the perceived healthfulness of packaged fruits and vegetables.
- Among vulnerable<sup>3</sup> consumers, inclusive language more consistently reinforces their perceived healthfulness of packaged fruits and vegetables.
- Vulnerable consumers feel that **limiting language** recommendations would most likely cause a decrease in their intake of packaged fruits and vegetables.

#### **Intent to Purchase**

Recommendations with **inclusive language** more strongly and consistently increase consumers' intent to purchase packaged fruits and vegetables, without decreasing their intent to purchase fresh produce.



PBH thanks the American Frozen Food Institute (AFFI), Canned Food Alliance (CFA), Can Manufacturers Institute (CMI) and Seneca for their support of this research.

When directly comparing inclusive vs. limiting language, all consumers feel that inclusive language is more realistic, more encouraging of all forms of fruits and vegetables, and offers more affordable options.

#### INCLUSIVE LANGUAGE

Inclusive language incorporates words and phrases that encourage consumption of fruits and vegetables regardless of form. For example:

- Include more fruits and vegetables in your diet. Fruits and vegetables may be fresh, canned, frozen, or dried.
- When including more fruits and vegetables in your diet, all forms of fruits and vegetables matter—fresh, frozen, canned, dried and 100% fruit or vegetable juice.
- With 200+ options and a variety of convenient packaging, prepared fruits, vegetables and beans are easy to store and easy to serve.

Recommendations should encourage all forms of fruits and vegetables so people can feel good about the purchases they're making and find more ways to increase their intake.

#### LIMITING LANGUAGE

Limiting language is defined as words and phrases that devalue packaged forms of fruits and vegetables or overemphasize the value of fresh. For example:

- Include more vegetables and beans (without added salt or fat), and fruits (without added sugars) in your diet.
- Include canned or frozen fruits and vegetables when fresh produce is not available.
- Overall, fruits and vegetables that are just picked or fresh from the farmers market are healthier than frozen or canned ones. However, including frozen and canned fruits and vegetables can still be a good choice.

#### Endnotes:

1. Inclusive of beans, like kidney beans.

- Produce for Better Health Foundation. The Impact of Policy Recommendation with Limiting and Inclusive Language on Consumers Perceptions and Intent to Purchase Fresh and Packaged Forms of Fruits & Vegetables, 2015. Web. <a href="http://pbhfoundation.org/about/res/pbh\_res/">http://pbhfoundation.org/about/res/pbh\_res/</a>.
- Vulnerable consumers are those individuals who receive government food assistance, eat less than the recommended levels of fruit and vegetables or have limited access and budget for purchasing fresh fruit and vegetables.

# Fruit & Vegetable Classification

A fruit is a reproductive structure of a flowering plant which surrounds and protects the seed. Fruit is classified in three different ways: simple, aggregate, and multiple.





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Vegetables are classified according to which part of the plant is eaten. Some vegetables fit into more than one category when several different parts of the plant are edible, e.g. both the roots and leaves of beets can be eaten.





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# Use Special Celebrations to Promote Fruit & Veggies

It's important to eat fruit and veggies every day. To keep this fruit and veggie message front and center for consumers, use special events for different days, weeks, and months of the year to celebrate specific commodities. Nationally recognized events provide great opportunities to reach the people you serve!

Looking for some tips, recipes, and resources to help plan some fruit and veggie celebrations? FruitsAndVeggiesMoreMatters.org • Food.unl.edu/web/fnh/january (University of Nebraska-Lincoln)





#### January

National Carrot Month National Bean Day (January 6) National Apricot Day (January 9) National Rhubarb Day (January 23)

#### February

Fabulous Florida Strawberry Month National Canned Food Month National Cherry Month National Grapefruit Month National Potato Lover's Month National Sweet Potato Month National Potato Lover's Day (February 8) National Strawberry Day (February 27)

#### March

National Celery Month National Frozen Food Month National Frozen Food Day (March 6) National Artichoke Heart Day (March 16) National Spinach Day (March 26) National Oranges and Lemons Day (March 31)

#### April

National Fresh Celery Month National Fresh Florida Tomato Month Fresh Tomato Day (April 6) Day of the Mushroom (April 16) National Garlic Day (April 19) National Raisin Day (April 30)

#### May

National Asparagus Month National Salad Month National Strawberry Month National Raisin Week (first week) National Orange Juice Day (May 4) Pick Strawberries Day (May 20)

#### June

National Fresh Fruit and Vegetables Month National Papaya Month Corn on the Cob Day (June 11) Fresh Veggies Day (June 17)

Note: This calendar is accurate as of the date of this publication. The special events and dates listed are designed to be illustrative only, not all-inclusive.

#### July

National Berry Month National Blueberry Month National Salad Week (4th week) National Watermelon Month Eat Beans Day (July 3)

#### August

Get Acquainted with Kiwifruit Month National Peach Month National Watermelon Day (August 3) National Zucchini Day (August 8) National Potato Day (August 19) "Eat a Peach" Day (Aug. 22) Banana Lover's Day (August 27) Lemon Juice Day (August 29)

#### September

Fruits & Veggies—More Matters® Month National Mushroom Month National Papaya Month National Potato Month Vegetarian Awareness Week (2nd week) National Acorn Squash Day (Sept. 7)

#### October

National Apple Month National Cranberry Month National Spinach-Lover's Month National Tomato Month World Vegetarian Day (October 1) National Mushroom Day (Oct. 15) National Nut Day (Oct. 22) National Pumpkin Day (Oct. 26) National Potato Day (Oct. 27)

#### November

National Pomegranate Month National Sweet Potato Awareness Month National Vegan Month National Fig Week (first week) Eat a Cranberry Day (Nov. 23)

#### December

National Pear Month National Eat a Red Apple Day (Dec. 1) National Kiwi Fruit Day (first day of winter)

# Are Concerns about Pesticides a Barrier to Consumption?

America's food supply is safer today than it has ever been. That is reassuring, especially since most adults and children in this country need to significantly increase their intake of fruit and vegetables. Media coverage of stories like "The Dirty Dozen,"<sup>1</sup> however, often raises unnecessary concerns about the risk of pesticide residues on conventionally grown produce. This negative messaging about food safety has left some consumers confused and uncertain about what they should be eating. In fact, a recent study found that fears about pesticide residues may have become another barrier to increasing fruit and vegetable consumption among Americans, especially low-income populations.<sup>2</sup>

### Putting Pesticide Risk in Perspective

To correct the common and often misleading information seen in the media about the effects and extent of pesticide residues on fruit and vegetables, consumers clearly need (and deserve) information from credible sources in order to make nutritionally-sound food choices. To meet this need, groups like the Alliance for Food and Farming (AFF) focus on presenting factual, science-based, and peer-reviewed information to the public. At safefruitsandveggies.com, AFF provides answers to common questions about actual fruit and vegetable pesticide residue. Among the most popular sections of the safefruitsandveggies.com website is the eye-popping Pesticide Residue Calculator, which puts residues into proper perspective. Website visitors can also see "Ask the Experts" videos, review peer-reviewed nutrition and toxicology research, and learn more about the regulatory systems in place to ensure the safety of produce.





### What Leading Research Has to Say

#### Answering the Question: Are Fruit and Vegetables Safe to Eat?

The U.S. food supply is considered one of the safest in the world. EPA, FDA and USDA set limits on how much pesticide can be used on farms and monitor pesticide residue on produce reaching the consumer. According to the latest findings from USDA released in 2012, "Consistent with guidance from health and nutrition experts—and as affirmed by federal nutrition guidance that urges people to make half their plate fruits and vegetables—we encourage everyone to continue to eat more fruits and vegetables in every meal and wash them before you do so."<sup>3, 4</sup>

"The amount of pesticide residues that an average person ingests throughout an entire year is even less than the amount of those 'harmful' substances in one cup of coffee."

--Dr. Bruce Ames Professor Emeritus of Biochemistry and Molecular Biology, University of California, Berkeley

We have the capacity to measure incredibly small amounts of anything, including pesticides and minerals, thanks to advanced technology. "The sheer fact that we can measure it ... doesn't necessarily translate into public risk."

-Dr. Carl Keen, University of California, Davis, Department of Nutrition

FDA recommends washing all produce thoroughly under running water before eating, cutting, or cooking, even if you plan to peel the produce. Washing fruit and vegetables with soap or detergent or using commercial produce washes is not recommended.<sup>5</sup>

Organically grown produce is often promoted as being more nutritious than fruit and vegetables that are traditionally farmed. Studies have shown that "there is no evidence of a difference in nutrient quality between organically and conventionally produced food-stuffs."<sup>6</sup> In fact, virtually all research on the health benefits of fruit and vegetables has been done with little regard to whether the fruit and vegetables were organically or conventionally grown.

There is a common misconception that organic produce is pesticide or chemical free. That is not necessarily the case. By definition, the term "organic" means that pesticides, if used, come from natural resources, not synthetic products. In fact, there are even some synthetic pesticides that are allowed on organic products.<sup>7</sup> Just because something is natural doesn't mean it's safe.<sup>8</sup> What makes organic farming different is not the use of pesticides, but the origin of the pesticides used. The bottom line is, organic and conventionally grown produce both represent good choices for consumers.

#### The Bottom Line

Health experts agree: Eat your fruit and vegetables! The benefits far outweigh the risks. As noted by Dr. Carl Keen, Professor of Nutrition and Internal Medicine at UC Davis, "For all of us involved in promoting better consumer health, increasing consumption of fruits and vegetables is among our main objectives. The benefits of consuming plenty of fruits and vegetables are absolutely indisputable. Consumers should eat both organic and conventionally grown produce without worrying about minute levels of pesticide residues."

#### Suggested Websites for More Information:

Academics Review, Testing popular claims against peer-reviewed science: <u>academicsreview.org/</u>

Alliance for Food and Farming: safefruitsandveggies.com/

American Council on Science and Health: acsh.org/

Council for Agricultural Science and Technology: cast-science.org/

EPA, Pesticides and Consumers: www2.epa.gov/safepestcontrol

FDA, Pesticides: fda.gov/Food/FoodbornellInessContaminants/ FoodbornellInessesNeedToKnow/default.htm

International Food Information Council Foundation (IFIC): foodinsight.org/

USDA, Agricultural Marketing Service, Pesticide Data Program: ams.usda.gov/AMSv1.0/pdp

# What consumers need to know about the "Dirty Dozen"

The "Dirty Dozen" list considers exposure but makes no attempt to address toxicity. Risk = Exposure x Toxicity

There are reliable, well-established, and accepted methods for assessing the risk of small doses of chemicals. The authors of the "Dirty Dozen" list acknowledge this methodology, and state on their website that the list "is not built on a complex assessment of pesticide risks."

There is no convincing evidence that pesticide residues at the levels found on fruit and vegetables sold in the U.S. pose a risk.

Consumers should be advised to "Just Wash It" with water, if concerned about pesticide residues, guidance that's based on government recommendations.

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# Pesticides and Food: What you need to know

From supermarkets to farmers markets, Americans can enjoy hundreds of nutritious, fresh and high-quality fruits and vegetables.

In order to provide such a plentiful food supply, conventional and organic farmers have multiple options to protect crops from weeds and pests—including pesticides. Even with strict safety standards in place to help ensure the safety of the food supply, you may have questions about the use of pesticides in food production, as well as pesticide residues on food.

#### What is a pesticide?

A pesticide is any substance or mixture of substances—natural, organic or man-made—used to prevent, destroy or manage pests. Not all pesticides are the same. Different types of pesticides target different types of pests. For example, insecticides target insects, herbicides target weeds, and fungicides target fungi that may cause plant diseases.



#### Why are pesticides used to grow food?

There are thousands of insects, weeds and plant diseases that can have a devastating effect on conventional and organic crops and, ultimately, threaten our food supply. Pesticides are one of many tools farmers use to protect their crops, similarly to how you may use pesticides to protect plants in your home garden.

#### How are pesticides tested for safety?

Pesticides are strictly regulated in the United States to ensure that they may be used safely and will not harm human health or the environment. All pesticides are rigorously screened before being allowed for use. Three government agencies share responsibility for regulating conventional and organic pesticides and ensuring the food supply is safe: U.S. Environmental Protection Agency (EPA), United States Department of Agriculture (USDA) and U.S. Food and Drug Administration (FDA).

#### Who monitors pesticide residue levels on fruits and vegetables?

Small amounts of pesticide are sometimes present on produce after it leaves the farm, these are known as "pesticide residues." The U.S. Environmental Protection Agency (EPA) has developed strict limits (or "tolerances") for the amount of pesticide residue that can be present on food. The FDA and USDA share responsibility for monitoring levels of pesticide residues in and on foods.

# Are fruits and vegetables that have been treated with pesticides safe to consume?

Yes. Most pesticide residues, if present at all, are typically well within safe levels (as determined by the EPA) for both adults and children. The website www.safefruitsandveggies.com has a "safe produce" calculator that shows how much of a food can be eaten before reaching a minimal level of health concern. For example, a child could consume over 1,500 servings of strawberries in one day (a feat that would be physically impossible) without any adverse



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#### www.foodinsight.org



#### FAST FACTS

- The benefits of consuming fruits and vegetables far outweigh any risks from the use of pesticides. Conventional or organic, both types of produce are highly regulated and safe.
- Both conventional and organic farmers may use pesticides.
- Federal and state sampling programs consistently show that pesticide residues on conventional and organic foods are at very low levels, when present at all.
- Washing fruits and vegetables often eliminates any pesticide residues, if they are present at all.
- Farmers use the smallest amount of pesticide necessary to protect their crops, so they only apply pesticides at the right time, in the right amount, and at the right location.



health effect from pesticide residues, even if the strawberries have the maximum pesticide residue levels identified by FDA or USDA.

# Do conventional and organic farmers always use pesticides?

No. Pesticides are expensive, so both conventional and organic farmers try to control insects, weeds, fungi or diseases using a variety of lower cost methods and tools. The section below highlights some of these methods, such as integrated pest management. The decision to use pesticides can be based on scouting fields for pests, historical experience or inspections conducted by certified crop advisors.

# Are pesticides used in organic production?

Yes. "Organic" does not necessarily mean "pesticide free". In fact, organic production can and often does include pesticides. The United States Department of Agriculture (USDA) organic regulations provide a national list of allowed and prohibited substances—man-made and natural, available at http://www.ams.usda.gov/nop.

# How do farmers manage the amount of pesticides used to grow food?

Both conventional and organic farmers take steps to ensure that pesticides are applied at the right time, in the right amount, and in the right location. Some examples include:

- Integrated pest management (IPM): Used by conventional and organic growers, IPM is a process that focuses on managing insects, weeds and diseases through a combination of cultural, biological and chemical measures. Pesticides are used only when needed and in combination with other approaches. Pest control materials are selected and applied in a manner that minimizes pesticide exposure for humans and the environment.
- **Precision agriculture:** Precision agriculture—also known as site-specific crop management—incorporates technologies that increase crop yields, decrease the amount of agricultural inputs (pesticides, fertilizers, water, etc.), and minimize impacts on the environment. Global



# QUICK TIPS TO FURTHER REDUCE YOUR EXPOSURE TO PESTICIDE RESIDUES

The risk of exposure to pesticide residues in fruits and vegetables is extremely low. However, by following the FDA's proper handling and rinsing practices, you can further minimize or eliminate pesticide residues, dirt and bacteria (if present). The tips below apply to conventionally-grown and organic produce.

- Rinse and scrub: All fruits and vegetables should be rinsed thoroughly with clean running water before eating. For firm produce, scrub with a clean produce brush on the surface while rinsing. Scrubbing will remove most wax coatings and residues, along with any dirt and bacteria. If the item package indicates "pre-washed," "pre-rinsed" or "ready-to-eat," you can consume safely without further rinsing. Do not use soap. Dry with a paper towel or clean towel.
- Peel and discard: Peeling produce can also remove any residues (if present) that may be on the skin. Rinse the produce before peeling. Throw away outer leaves of leafy vegetables.

positioning systems (GPS), geographical information systems (GIS), and satellite and aerial remote sensors are used in precision agriculture to pinpoint areas of need in a field. Sometimes, only a small section of a field may need to be treated for pests or weeds. Using the data from these tools, conventional and organic farmers will apply the right amount of a pesticide, at the right time, and in a precise location of a field, thus reducing the amount of pesticides applied.

 Biotechnology: Scientists can use biotechnology to add genes with desirable characteristics, like insect protection or herbicide tolerance, to crops. These plants are often called "Genetically Modified Organisms" or "GMOs". Herbicide-tolerant crops allow the crop to survive while weeds are eliminated and reduce the need for tilling that, in turn, decreases soil erosion. Biotech (or "GMO") crops with insect control traits reduce insect damage and require fewer or no insecticide applications. There also are biotech crops on the market that tolerate drought stress, avoid viral infections and produce healthier oils. Upcoming biotech crops include apples that stay fresh longer and potatoes that resist browning, thus reducing food waste.



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# Vegetables, Fruit, and Biotechnology

Surveys show varying levels of concern about genetically modified (GM) foods among consumers; with some surveys indicating more than a third are very or extremely concerned about eating them.<sup>1</sup> When unprompted about GM foods, however, only 2% of consumers express concern about them.<sup>2</sup> Regardless of the real level of concern, there is a very vocal segment of the population who are against GM crops as well as foods and ingredients derived from biotechnology.<sup>3</sup>

In a society where the quality of the diet — overconsumption or nutrient deficiencies — has a larger influence on morbidity, mortality, and quality of life than other food risks, it's ironic that a technology that could help improve diet quality worldwide, while being more environmentally friendly, is instead the subject of so much misinformation and misperception.<sup>4,5</sup>

#### **Current Biotechnology Applications**

Biotechnology is already playing a role in many products we use today. For example, enzymes developed through biotechnology are used in the production of cheese and yogurt. Biotechnology is used in the development of biofuels and medicines such as insulin for diabetes and vaccines for hepatitis, meningitis, and influenza. The first new treatment for multiple sclerosis in over 20 years was developed using biotechnology, as was the first new therapy in 30 years for cystic fibrosis. Biotechnology can help develop crops that are more resistant to insects, diseases, and harsh weather. Biotechnology can also make food safer by reducing naturally occurring toxins and allergens.<sup>6</sup>

#### Prominence of Biotechnology in Produce

Many consumers believe that the use of biotechnology to genetically modify food is more prevalent in vegetables and fruit than in any other food,<sup>2</sup> when in fact the majority (>75%) of GM crops are soybeans, canola, sugar beets, cotton and field corn and are fed to animals or processed into sugar, high fructose corn syrup, vegetable oils, and protein extracts and can be found as an ingredient in an estimated 70% of foods sold in grocery stores today.<sup>7</sup>

Almost all produce items in the market today have been developed through traditional cross-breeding; some virus-resistant squash and insect-resistant sweet corn have been bred using biotechnology. Biotechnology was critical to saving the Hawaiian papaya crop from a devastating papaya ringspot virus, which threatened to wipe out the entire crop. Two new products, a non-browning apple and potato, were approved by FDA in 2015.

### Food Safety Risk Hierarchy

High Risk	Diet (sufficiency, adequacy, over-nutrition)
	Food borne illness
	Untested (organic food, dietary supplements)
Moderate	Natural toxicants
Risk	Food allergy
	Chance additives
	Pesticide and herbicide residues
	Food ingredients and additives
*No Risk	Genetically modified foods

\* All foods can have certain associated risks. GM foods are as safe as or are safer than their conventional counterparts.

Bruce M. Chassy, PhD, Professor Emeritus of Food Science, Professor Emeritus Nutritional Sciences, University of Illinois at Urbana-Champaign

### Case Study: Citrus Greening



Citrus greening, a disease that sours oranges and leaves them half green, reached the citrus groves of Florida in 2005 after ravaging other citrus crops world-wide. Florida growers have chopped down or burned thousands of infected trees to help contain the spread of the disease, with no success. The use of biotechnology may be the only possible avenue to defeat the citrus disease.<sup>8</sup> Trees altered with a spinach gene appear to be able to resist the disease and are currently in test phase. With regulatory approval, this technology could be producing commercial fruit in 5 years.



... it's ironic that a technology that could help improve diet quality worldwide, while being more environmentally friendly, is instead the subject of so much misinformation and misperception.

The use of biotechnology to protect plums and beans from viruses, and to protect citrus groves from a bacterial disease are currently under review.

#### Naturally Occurring Plant Compounds

Plants produce a variety of toxic molecules as part of their defense against predators.<sup>9</sup> In fact, 99.99% (by weight) of the pesticides in the American diet are chemicals that plants produce to defend themselves against insects and other predators.<sup>10</sup> Paradoxically, some of the very molecules that defend plants against predators are the same molecules that, at subtoxic doses, are thought to make plants beneficial to human health. Phytochemicals such as resveratrol (in grapes and wine), sulforaphanes (cruciferous vegetables) and organosulfur compounds (in garlic and onions) are thought to protect cells against injury and disease not simply be-

# Neural Tube Defects — Caused by a plant fungus?



When corn is attacked by insects, a mold called Fusarium can grow at the site of insect damage and produce fumonisin, a deadly mycotoxin. It is often found in unprocessed corn (or maize), like tortillas made from raw corn. If consumed, it interferes with the cellular update of folic acid which is important in reducing the incidence of neural tube defects, including spina bifida, hydro-

cephalus, and anencephaly. Children of women who eat unprocessed corn as a significant part of their diet have as much as a 6-fold higher rate of neural tube defects. Genetically improved corn is less often damaged by insects, greatly reducing the amount of fumonisin and its harmful effects.<sup>20</sup> cause they act as antioxidants, but by stimulating the production of proteins, antioxidant enzymes, and other signaling pathways to help cells withstand stress.<sup>11-14</sup> Conversely, some plants or plant components have higher levels of these naturally occurring toxins, like some wild mushrooms, rhubarb leaves, holly berries, or foxglove (used to produce digitalis for treatment of some cardiac conditions),<sup>15</sup> but there are no regulations that keep these plants from being cross-bred and introduced into the current food supply using traditional breeding techniques.

Furthermore, toxic compounds can be produced by plants due to insect damage, wet growing environments, poor post-harvest storage conditions, or other stressors. For example, mycotoxins are metabolites produced by plant fungi and can be found primarily in grains, tree nuts and groundnuts, but which can also be passed through animals into products such as milk.<sup>16</sup> Mycotoxins cause diseases as varied as neural tube defects, liver and kidney toxicity, a variety of cancers, gangrene, convulsions, and suppression of the immune system.<sup>16, 17</sup> The appropriate use of biotechnology can make crops resistant to pests, viruses, bacteria, fungal diseases, and other plant and environmental stressors, thereby reducing development of toxic compounds and providing a safer food supply.

#### Potential Biotechnology Applications

The potential of biotechnology is vast but underutilized, in part because of the extensive regulatory cost for approval as well as challenges in consumer acceptance.<sup>18,19</sup> Biotechnology could be useful for developing produce varietals that:

- have different flavor profiles, perhaps sweeter or less bitter,
- are smaller for snacking and convenient packaging or larger for easier processing,
- are salt or drought tolerant, require less sunlight or can tolerate higher or lower temperatures,
- are disease or pest resistant for reduced use of pesticides, herbicides or fungicides, which in turn can improve soil quality and reduce pollution and conserve fossil fuels simply by reducing tractor trips across fields,
- have improved yields or grow faster to allow for more food from less land, with less need to encroach on new land,
- can be mechanically harvested, thereby reducing labor costs and price.



# Biotechnology as an Extension of Traditional Plant Breeding

All crops are domesticated wild plants that have been extensively genetically modified over hundreds of years. Every variety is genetically different. For example, there are more than 200 peach varietals alone, with thousands of genes that vary in each of them.<sup>21</sup>

The use of biotechnology as an extension of breeding technique is a more precise way to introduce new or enhanced genetic traits into crops, where only one or two genes may be changed. There is no scientific reason to believe that crops derived using biotechnologies are any different than any other crop in terms of safety or composition.

It is noteworthy that many foods we eat today have been introduced as completely new foods to humans during the past 400 years of globalization, like avocados, beans, and papayas. Many would not be approved for distribution if subjected to the standards applied to GM crops today, like rhubarb or spinach (oxalic acid), and potato or tomatoes (glycoalkaloids).<sup>4</sup> Indeed, these crops have been readily adopted without adverse health effects.

Ultimately, many years and millions of dollars are spent testing the safety of these biotech crops as required by the USDA, FDA, and EPA. Overall, a broad range of scientists, regulators, health professionals, and health organizations agree that it is safe to consume foods produced through biotechnology.<sup>22-27</sup>

Helpful websites GMOAnswers.com tinyurl.com/GMLinks Foodinsight.org/foodbioguide.aspx AcademicsReview.org PBH Webinar: *Understanding Food Risks* Found at PBHFoundation.org/pub\_sec/webinars/

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# **Keeping Produce Safe**

Food handling and microbiological contamination are serious food safety concerns. About 1 in 6 (or 48 million) people get sick each year from contaminated food, with 128,000 hospitalizations, and 3,000 deaths annually.<sup>1</sup> Produce has been implicated in many food safety outbreaks over the past few years: from spinach in 2006, to jalapeño and serrano peppers (not tomatoes) in 2008, to cantaloupe in 2011 and 2012. In 2013, CDC released a new report using new methods to tease out mixed dishes, and found produce implicated in nearly half of all illnesses between 1998 and 2008, most often due to Norovirus from sick food handlers.<sup>2</sup> An earlier analysis using CDC's Foodborne Disease Outbreak database suggests that only a small portion of produce food outbreaks, 2%, actually occurred on the farm.<sup>3</sup>

There is a strong commitment by American farmers to ensure the safety of the foods they grow. Not only do their livelihoods depend on it, but the first person to eat product from a farm is usually the farmers themselves or a member of their family. Certainly food safety begins on the farm, but everyone who handles produce should be extra careful to avoid cross contamination, especially if the produce is to be eaten raw.

# Why do we hear about so many microbiological outbreaks that include fresh produce?

It could be any of a variety of things, including improved diagnostic capacity in health department laboratories, more people eating fresh produce, and a 24-hour news cycle that keeps it in the news. Pound for pound, produce and dairy are some of the safest food groups.<sup>4</sup>

#### What caused the e.coli outbreak associated with fresh spinach in 2006 in which three people died and more than 200 became ill and how is the industry working to prevent this from happening again?

To this day there is no conclusive cause, but it's thought to be a result of wild pigs in and around spinach fields or irrigation wells that could have been exposed to cattle and wildlife feces.<sup>5</sup> The industry responded in a variety of ways, including the creation of both a California and Arizona Leafy Greens Marketing Agreement in 2007 that developed more definitive food safety standards for leafy greens, including metrics for water quality, run-off water, fertilizers, adjacent land use, equipment sanitation, worker hygiene, and more. Ninety-nine percent of all leafy greens growers in California and Arizona abide by these standards. These same growers provide 90% of the nation's leafy greens, which includes lettuce (butter, iceberg, red leaf, green leaf, romaine and baby leaf), spinach, cabbage (red, green, savoy), spring mix, arugula, chard, escarole, endive, and kale. Also, a new research foundation,

Center for Produce Safety, started in 2007, continues to fund research to understand produce food safety.

#### What caused the multi-state outbreak of Salmonella Saintpaul in jalapeño and serrano peppers that sickened over 1,400 people in 2008 and how is the industry working to prevent this from happening again?

Although CDC and FDA in early June of 2008 pointed to tomatoes as the cause of the outbreak, no contaminated tomato was ever found. Instead, jalapeño and serrano peppers were identified as the products responsible for the illnesses and that the contamination probably occurred from irrigation water on a farm in Mexico. Meanwhile more than 1,400 people became ill, 2 died, and the tomato industry, wrongly implicated, lost more than \$100 million. Traceback issues such as product commingling, repacking, and lack of complete product documentation throughout the supply chain hindered traceback efforts.<sup>6</sup> The produce industry has spent millions in produce traceability efforts in recent years to maximize protection of public health and to minimize the economic impact to the industry.



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# What We Know About Phytochemicals

Consumption of fruit and vegetables is an important part of a healthy diet and is associated with reduced risk of chronic diseases, including cardiovascular disease, stroke, and certain types of cancer. Fruit and vegetables contain a variety of vitamins, minerals, fiber and phytochemicals. Phytochemicals are compounds produced by plants that are believed to affect health, but are not traditional 'essential' nutrients. That is, if not consumed, clinical deficiency symptoms do not occur. They are, however, thought to be protective against disease, likely working synergistically with other compounds, including vitamins and minerals, in plants. More than 5,000 individual phytochemicals have been identified in fruit, vegetables, and grains, but a large number are still unidentified. Scientists group phytochemicals according to their chemical structure. This often means that phytochemicals in a group act in the human body in a similar way. The majority of the phytochemicals found in fruit and vegetables appear to be in the sub groups of carotenoids, flavonoids and organosulfur compounds, as shown below. Health professionals should reiterate that while there is ample evidence about the influence of fruit and vegetables on health and disease, it is not likely due to any single phytochemical, vitamin, or mineral.





#### CAROTENOIDS

There are more than 600 carotenoids identified in nature and these compounds are the source of the yellow, orange, and red colors of many plants (though the chlorophyll in some green plants hides these yellow-orange-red pigments). Carotenoids can be broadly classified into two classes: carotenes (α-carotene,  $\alpha$ -carotene, and lycopene) and xanthophylls ( $\beta$ -cryptoxanthin, lutein, and zeaxanthin.) These six carotenoids are the most studied because of their abundance in the food supply. β-crypotoxanthin,  $\alpha$ -carotene, and  $\alpha$ -carotene are provitamin A carotenoids that can be converted by the body to Vitamin A. Lutein, lycopene, and zeaxanthin do not have vitamin A activity. Chopping, pureeing, and cooking carotenoid-containing vegetables in oil generally increases the bioavailability of carotenoids. Lycopene gives tomatoes, pink grapefruit, watermelon, and guava their red color.  $\alpha$ -carotene and  $\alpha$ -carotene offer the yellow-orange pigments;  $\beta$ -cryptoxanthin offers red/orange.

#### CHLOROPHYLL

Chlorophyll is used by plants to trap light needed for photosynthesis and also gives plants their green color. It is fat soluble and insoluble in water, though little is known about its bioavailability and metabolism. Chlorophylls are the most abundant pigments in plants, with the richest sources being dark green leafy vegetables.

#### POLYPHENOLS

Flavonoids are the most abundant of the polyphenols. Several subclasses include: anthocyanins, flavanols, flavanones, flavonols, flavones, and isoflavones. It is estimated that flavonoids account for approximately two thirds of the polyphenols in our diet and the bulk of the remaining are from phenolic acids. Many of the biological effects of flavonoids appear to be related to their ability to modulate cell-signaling pathways, rather than their



#### ORGANOSULFUR COMPOUNDS

Sulfur-containing compounds called glucosinolates are found in cruciferous vegetables. Myrosinase, a class of enzymes that catalyzes the hydrolysis of glucosinolates, is separate from glucosinolates in plant cells. When cruciferous vegetables are chopped or chewed, myrosinase interacts with glucosinolates and releases isothiocyanates.

MAIN SOURCE: Jane Higdon and Victoria Drake, An Evidence-based Approach to Phytochemicals and Other Dietary Factors, 2nd edition (New York: Thieme Stuttgart, 2013)

See also: Margot Skinner and Denise Hunter, *Bioactives in Fruit: Health Benefits and Functional Foods* (UK: Wiley Blackwell, 2013)

Cesarettin Alasalvar and Fereidoon Shahidi, Dried Fruits: Phytochemicals and Health Effects (UK: Wiley Blackwell, 2013)

Phytochemical Information Center, Produce for Better Health Foundation, http://www.pbhfoundation.org/about/res/pic

#### BIOLOGICAL ACTIVITY

Vitamin A activity Antioxidant activity Light filtering Intercellular communication Immune system function



#### **BIOLOGICAL ACTIVITY**

May bind to and inhibit absorption of carcinogens Antioxidant activity

#### **BIOLOGICAL ACTIVITY**

Direct antioxidant activity Metal chelation Help regulate cell growth, proliferation, and cell death (apoptosis) Stimulates detoxification enzyme activity Preserves normal cell-cycle regulation Inhibits cancer cell proliferation and induces apoptosis of cancer cells Inhibits tumor invasion Decreases inflammation Decreases vascular cell adhesion Increases arterial relaxation (vasodilation)

Decreases platelet aggregation

#### **BIOLOGICAL ACTIVITY**

Involved in metabolism and elimination of a variety of chemicals (drugs, toxins, carcinogens)

Preservation of normal cell-cycle regulation

Inhibits cancer cell proliferation

Induces apoptosis in several cancer cell lines

Anti-inflammatory activity

Antibacterial activity

## Quick Reference to Foods Rich in Phytochemicals or Other Dietary Factors

VEGETABLES	
DARK GREEN — e.g., Chard, leafy greens, lettuce, green pepper, spinach	Carotenoids (lutein and zeaxanthin), chlorophyll, fiber
YELLOW & ORANGE — e.g., Carrots, pumpkin, squash, sweet potato	<b>Carotenoids</b> ( $\alpha$ -carotene, $\beta$ -carotene, $\beta$ -cryptoxanthin), <b>fiber</b>
CRUCIFEROUS — e.g., Arugula, bok choy, broccoli, Brussels sprouts, cabbage, Chinese cabbage, cauliflower, collard greens, horseradish, kale, kohlrabi, mustard, radish, rutabaga, turnips, wasabi, and watercress.	Carotenoids (lutein and zeaxanthin), chlorophyll, isothiocyanates, indoles, lignans, fiber, phytosterols
LEGUMES — e.g., Soy and dried beans, peas, lentils	Flavonoids (isoflavones), fiber, phytosterols
ALLIUM — e.g., Chives, leeks, garlic, onions, shallots	Flavonoids (flavonols), fiber, organosulfur compounds
FRUITS	
BERRIES — e.g., Strawberries, raspberries, blueberries	Flavonoids (anthocyanins, flavanols, flavonols), flavonols), lignans, fiber, resveratrol
GRAPES — Red and purple grapes	Flavonoids (anthocyanins, flavanols, flavonols), fiber, resveratrol
CITRUS — e.g., Grapefruits, oranges, lemons, limes	Flavonoids (flavanones), fiber
RED — e.g., Apples, cherries, cranberries, pomegranates, tomatoes, watermelon	Flavonoids (flavanols, flavonols), fiber, Carotenoids (lycopene), fiber
NUTS AND SEEDS	
NUTS — e.g., Almonds, pine nuts, walnuts	Fiber, phytosterols, essential fatty acids
LEGUMES — e.g., Peanuts	Fiber, phytosterols, resveratrol, essential fatty acids
SEEDS — e.g., Flaxseeds, sesame seeds	Lignans, fiber, phytosterols, essential fatty acids
WHOLE GRAINS	
WHOLE GRAINS — e.g., Brown rice, barley, oats, rye, whole wheat	Lignans, fiber, phytosterols
SPICES	
Turmeric	Curcumin
Parsley	Chlorophyll, flavonoids (flavones)
Garlic	Organosulfur compounds

Chart adapted from: Jane Higdon and Victoria Drake, "Quick Reference to Foods Rich in Phytochemicals or Other Dietary Factors," in *An Evidence-based Approach to Phytochemicals and Other Dietary Factors, 2nd edition,* ed. Jane Higdon et al. (New York: Thieme Stuttgart, 2013), 270.



# Fruit and Vegetable Seasonality

Eating seasonal fresh produce has often been touted as one way to find the best produce at the best price. But 'seasonal' varies depending on where you live and the length of your growing season. One rule of thumb is to know what temperature various fruit and vegetables like. Once you know that, then you'll be able to determine if they were grown locally or in other preferred temperature locations. Look at the classifications below and then compare that to what you know about the seasonal climate in growing areas on the next few pages.



#### Cool Season Vegetables

Artichoke, Asparagus, Beet, Bok Choi, Broccoli, Brussels Sprouts, Chive, Cabbage, Cardoon, Carrot, Cauliflower, Celeriac, Celery, Chard, Chicory, Chinese Cabbage, Cress, Daikon, Dandelion, Endive, Escarole, Fava Bean (English Broadbean), Florence Fennel, Garlic, Horseradish, Kale, Kohlrabi, Leek, Lettuce, Mustard, Onion, Pak Choi, Parsley, Parsnips, Pea (English, Snow, Snap), Radicchio, Radish, Rhubarb, Rutabaga, Salsify, Scallions, Shallot, Spinach, Swiss Chard, Turnip, Watercress.

#### Warm Season Vegetables

Bean (Lima, Snap), Cantaloupe, Chayote, Corn, Cowpea (Southern Pea), Cucumber, Eggplant, Honeydew, Okra, Pepper (Bell, Hot), Pumpkin, Soybean (Edible), Squash, Sweet Potato, Tomato, Watermelon.



# Fruit

#### Cool Climate Fruit

Colder locations are more appropriate for late blooming species like apples, cherries, quince, and European plums. Strawberry, raspberry, blueberry, cranberry, and blackberry perform better under cool climates.

#### Warm Climate Fruit

In general, citrus requires a great deal of summer heat and relatively frost free sites. Warmer growing locations are good for early blooming species, such as almonds, apricots, Japanese plums, pears, and peaches and tropical or sub-tropical fruits, including: dates, figs, pomegranate, avocado, guava, passion fruit, banana, carambola, chayote, guava, custard apple.


## **Apples**

Major Apple Area Minor Apple Area

Yellow numbers indicate the percent each state contributed to the total national acreage. States not numbered contributed less than 1% to the national total.

- · Major areas combined account for 75% of the total national acreage.
- · Major and minor areas combined account for 99% of the total national acreage.
- · Major and minor areas and state acreage percentages are derived from NASS 2007 Census of Agriculture data.

Note: Counties shaded in gray contain data that are not published by NASS, and hence were not used in delineating the major and minor agricultural areas. Additional information on these agricultural data can be found at: http://www.agcensus.usda.gov/.

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## **Peaches**



Yellow numbers indicate the percent each state contributed to the total national acreage. States not numbered contributed less than 1% to the national total.

Major Peach Area Minor Peach Area

- · Major areas combined account for 75% of the total national acreage.
- · Major and minor areas combined account for 99% of the total national acreage.
- · Major and minor areas and state acreage percentages are derived from NASS 2007 Census of Agriculture data.

Note: Counties shaded in gray contain data that are not published by NASS, and hence were not used in delineating the major and minor agricultural areas. Additional information on these agricultural data can be found at: http://www.agcensus.usda.gov/.



## Citrus



Major Citrus Area

Minor Citrus Area

Yellow numbers indicate the percent each state contributed to the total national acreage. States not numbered contributed less than 1% to the national total.

- · Major areas combined account for 75% of the total national acreage.
- · Major and minor areas combined account for 99% of the total national acreage.
- · Major and minor areas and state acreage percentages are derived from NASS 2007 Census of Agriculture data.

Note: Counties shaded in gray contain data that are not published by NASS, and hence were not used in delineating the major and minor agricultural areas. Additional information on these agricultural data can be found at: http://www.agcensus.usda.gov/.

World Agricultural Outlook Board USDA Joint Agricultural Weather Facility

## Vegetables



Minor Vegetable Area

Yellow numbers indicate the percent each state contributed to the total national acreage. States not numbered contributed less than 1% to the national total.

- · Major areas combined account for 75% of the total national acreage.
- · Major and minor areas combined account for 99% of the total national acreage.
- · Major and minor areas and state acreage percentages are derived from NASS 2007 Census of Agriculture data.

Note: Counties shaded in gray contain data that are not published by NASS, and hence were not used in delineating the major and minor agricultural areas. Additional information on these agricultural data can be found at: http://www.agcensus.usda.gov/.

USDA World Agricultural Outlook Board Joint Agricultural Weather Facility









# Greenhouse Grown Produce: How Prevalent is it Today?

Growing plants in a commercial greenhouse requires significant investment, but this is a growing area in commercial agriculture today. The transparent covering of the greenhouse allows light to enter and warms the interior. Greenhouses are particularly useful if an area has a short growing season or is otherwise difficult to grow product outdoors.



Greenhouses allow for greater control of the growing environment, including temperature, light, shade, irrigation, water, humidity, fertilizer, and pest control. Temperature control is one of the highest costs in a greenhouse operation. Ventilation is also critical to keeping plants healthy. Not only does ventilation help regulate temperature and humidity, but air movement helps prevent plant pathogens from building up. Keeping pests and disease at bay is important since any introduction into the greenhouse can harm the entire crop. Irrigation in a greenhouse is necessary, but can help minimize water usage since there is an ability to recapture, reuse, and recycle water.

Technology is very important in agriculture generally and perhaps even more so in greenhouse production. Not only is technology important for controlling the environment within the greenhouse, but technology continues to allow improvement in cost cutting measures while also minimizing the impact on our world. For example, carbon dioxide, a waste product from refineries that is vented into the atmosphere, can be used in greenhouses to enrich cultivation since plants use carbon dioxide for photosynthesis. In fact, some commercial greenhouses are located near industry facilities to be able to capture both waste heat and carbon dioxide from refineries.

Since the in-door environment can be controlled, managing pests and disease are also easier to control. Many growers, both field growers and greenhouse growers, use integrated pest management to reduce costly pesticides and herbicides. Many growers will employ lady bugs for aphid control. They might also use eggplants and rye grass as bait plants to attract 'bad bugs' that may enter the greenhouse. Pest control tags and glue boards are used for pest identification and extermination. Greenhouse growers also need to introduce insects (e.g. bees) to help pollinate. Similarly, the ability to trace food to its source for food safety verification is also more controlled with the greenhouse environment.

#### BENEFITS OF GREENHOUSE GROWING

FIELD GROWING LOW TECH GREENHOUSE HIGH TECH GREENHOUSE 50% 70% **Reliability of Supply** 95% 1 time 5-8 times of field yield Production Yield 12-20 times of field yield Environmental Control None Some Control **Complete Control** Land Use Maximum Reduced Minimum Water/Fertilizer Use Maximum Minimum and Recycled CO<sub>2</sub> Absorption **Minimal** Increased Maximum Maximum Pesticide Use Minimal to Zero Labor Inefficient Moderate **Efficient - Ergonomic** Minimum Medium **Food Safety** Maximum

Source: Mastronardi Produce



# Integrated Pest Management: What is it?

Farmers, including fruit and vegetable growers, are some of the best stewards of land. Not only do they want to protect it because it is a valuable asset, but they also work the land or live on it. Agriculture is also a science, with expertise provided by the fields of agronomy, entomology, horticulture, ecology, toxicology, plant pathology, soil science and other plant and agriculture sciences. Science has evolved greatly over the past 40 years, resulting in a better understanding of how to protect natural resources and human health. This can be seen through the increased use of Integrated Pest Management (IPM) in agriculture over time. IPM programs use information on the life cycles of pests to manage them with the least possible hazard to people and the environment, while reducing costs.



#### Did you know...

Falcons are used as a strategy in some IPM programs to help keep birds and rodents out of fields and orchards.

IPM is not a single pest control method, but a series of pest management evaluations, decisions, and controls and can best be described as a continuum that includes biological, cultural, mechanical, and chemical controls. Most, if not all, fruit and vegetable growers are somewhere along this continuum. As a first line of defense, IPM programs manage crops to prevent pests from becoming a threat. This may mean rotating between different crops, selecting pest-resistant varieties, selecting varieties best suited for local growing conditions, and planting pest-free

#### What is a pest?

Pests are organisms that damage or interfere with desirable plants in our fields and orchards, landscapes, or wild lands, or damage homes or other structures. Pests also include organisms that impact human or animal health. Pests may transmit disease or may just be a nuisance. A pest can be a plant (weed), vertebrate (bird, rodent, or other mammal), invertebrate (insect, tick, mite, or snail), nematode (roundworms), pathogen (bacteria, virus, or fungus) that causes disease, or other unwanted organisms that may harm water quality, animal life, or other parts of the ecosystem.

SOURCE: "What is Integrated Pest Management (IPM)?" University of California Agriculture & Natural Resources, accessed April 1, 2015, http://www.ipm.ucdavis.edu/ GENERAL/whatisipm.html

rootstock. In addition, not all insects, weeds, and other living organisms require control. Many organisms are innocuous and some are even helpful, such as lady bugs eating aphids or beneficial bacteria added to the soil of crops vulnerable to root diseases.

If pest control is required, less risky pest controls are chosen first, including mechanical control, such as removing diseased plants, trapping or weeding, or the use of highly targeted chemicals, such as pheromones to disrupt pest mating. If further control is required, then additional pest controls would be employed, such as targeted spraying of pesticides. Broadcast spraying of non-specific pesticides is a last resort, though major improvements in science have led to the development of safer, less toxic pesticides, all of which must be approved by EPA prior to use.

#### **Bottom Line**

Farmers (and fruit and vegetable growers) are some of our best stewards of the land. Their work is supported by learnings in entomology, ecology, plant pathology and other important sciences. As science evolves, farmers are able to employ techniques that protect our natural resources and minimize the use of pesticides, all while delivering a healthy product to consumers.

"Food and Pesticides," EPA, accessed April 1, 2015, http://www2.epa.gov/safepestcontrol/ food-and-pesticides



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Sources:

<sup>&</sup>quot;Integrated Pest Management (IPM) Principles," EPA, accessed April 1, 2015, http://www.epa.gov/ pesticides/factsheets/ipm.htm

# The Cost of Healthy Eating

Are you ever asked why produce is so expensive? The question should really be, "how can produce be so inexpensive?" Many fruits and vegetables must be hand harvested to prevent bruising, which is very labor intensive. They must then be packaged, transported, stored, and handled in ways to prevent bruising, while maintaining proper temperature for best flavor. All things considered, produce is very inexpensive.

Furthermore, analysis by the USDA Economic Research Service (ERS) and others indicate that the total recommended cups of fruits and vegetables each day can be purchased for \$2.50, or 50 cents per cup.<sup>1</sup> In fact, when measured on the basis of edible weight or average portion size, grains, vegetables, fruit, and dairy foods are less expensive than most protein foods and foods high in saturated fat, added sugars, and/or sodium.<sup>2</sup> Only when measured on price per calorie were healthy foods higher priced, not surprising since healthy foods are lower in calories.<sup>3</sup> The key is to include frozen, canned, dried and 100% juice - in addition to fresh - to meet daily fruit and vegetable consumption goals.

Finally, considering the average cost of a meal purchased at a restaurant (\$6.96) is three times higher than one made in-home (\$2.24),<sup>4</sup> it is important to encourage price sensitive consumers to eat more meals at home. Selecting frozen, prepared meals from the store and adding fruit and vegetable side dishes is more economical and more nutritious than eating out.<sup>5</sup> Additionally, restaurants account for nearly half (47%) of the food dollar, but only 12% of total food consumed. Of the food dollars spent at restaurants, fast food accounts for 79% of all restaurant occasions.<sup>4</sup>



#### **Bottom Line**

Price sensitive consumers need to eat more meals at home and include a variety of fruits and vegetables into their meal plans: canned, frozen, dried, fresh, or 100% juice.

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- about/res/pbh res/ 5. Pananikolaou V et al. Consumption of Frozen Meals as Compared to Quick Service Restaurant Meals is Associated with Better Nutrient Intakes in Adult Participants of The National Health and Nutrition Examination Survey (2003-2010) The FASEB Journal. 2014; 28(1) Supplement LB383.

# The Impact of Diet on the Environment

We are meat eaters. An analysis of the Food and Agricultural Organization of the United Nations (FAO) Food Balance Sheet data shows that there has been an increase in aggregate meat consumption by almost 60% globally between 1990 and 2009, driven in part by a growing world population.<sup>1</sup> Per capita consumption has also increased by almost 25%, with upward trends in white meats and downward trends in red meat.

Meat production involves growing grain to feed animals, whereas plant foods for human consumption can be produced on far less land. This more efficient production of food produces less greenhouse gas emissions, which leaves a smaller environmental footprint.<sup>2</sup> In a recent study on diet and its impact on the environment and health outcomes, researchers compared meat-based diets to plant-based diets to understand how they differ.<sup>3</sup> They found:

Overall, greenhouse gas emissions were 29% lower for vegetarians and 22% for semi-vegetarians compared to meat eaters.

The mortality rate for meat eaters was 20% higher than that for vegetarians and semi-vegetarians.

Another part of the conversation about impact of diet on the environment is the distance food travels as a measure of its impact on the environment, or 'food miles.' This concept only includes distance food travels and does not consider total energy use in the production of the product. Growing a product in its ideal location with the best production techniques generally produces the best product with fewer overall energy inputs. Furthermore, fruit and vegetables harvested and processed means that waste - such as peels, cores, and other inedible plant matter — is removed during processing, re-used as feed or compost, and thus not transported through the distribution system.

#### **Bottom Line**

Research has consistently shown that in an addition to climate benefits, plant-based diets have positive impacts on health and life expectancy, regardless of how far that food has traveled.



References

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# Section 2: -

## Dispelling Common Concerns/Myths About Fruits & Vegetables

### What form of fruit or vegetables is best?

Buying a combination of fresh, canned, frozen, dried, and 100% juice minimizes waste, saves money, and assures that there is always a variety of fruit and vegetables available. Exclusively recommending one form of fruit or vegetable over another ignores the benefits of each form and limits consumer choices. Each form is full of important nutrients and phytochemicals.

Bottom line Consume enough fruit and veggies each day, in whatever form fits your preference and lifestyle!

### Does processing destroy nutrients?

Fresh, frozen, dried, and canned fruit and vegetables contain similar amounts of fiber and minerals; cooking or drying fruit or vegetables does not destroy fiber or minerals. Most fat-soluble nutrients, including carotenoids, vitamin A, and vitamin E, are actually higher in packaged fruit and vegetables. This is true, in part, because the mild heat treatment in prepared products allows for greater bioavailability of lipid-soluble nutrients. Packaged fruit and vegetables may also contain greater nutritional value because some processing cultivars are more nutritious than fresh cultivars, as is the case with tomatoes.

Conversely, heat used during the canning or freezing process — or the cooking of raw vegetables — can reduce water-soluble nutrients, including vitamin C and the B-vitamins. Commercial preservation methods today, however, optimize conditions to minimize time and temperature exposures, thus minimizing these nutrient losses. In fact, fruit and vegetables that are to be canned or frozen are packed within hours of harvest, so their peak nutritional value is preserved.

**Bottom line** Eating a variety of fruit and veggies, whether raw or cooked, will assure that you get all of the nutrients from these foods.

### Does drinking 100% juice cause weight gain?

The weight of the evidence shows that moderate consumption of 100% fruit juice is not associated with overweight or obesity in healthy adults and children.

Bottom line A limit of 4-6 ounces of 100% juice for children ages 1-6 and up to 12 ounces for adults and children 7 years and older can help meet daily fruit and vegetable recommendations.

### Do juice drinkers not eat fruit?

More than 70% of Americans are not meeting daily recommendations for fruit and an even higher number don't eat enough vegetables. Several studies show 100% fruit juice drinkers have higher intakes of whole fruit compared to non-fruit juice drinkers, suggesting that fruit juice is complementary and not competitive with fruit. Those Americans who do consume fruit generally follow a pattern of two parts whole fruit to one part juice.

While whole fruit can be a better source of fiber, 100% juice delivers the same important vitamins, minerals and plant nutrients, such as polyphenols. In fact, in some cases, drinking 100% fruit juice may actually give you more healthy polyphenols than eating the fruit. For example, making 100% grape juice involves crushing whole Concord grapes — including the seeds and dark purple skin — to release polyphenols that might not otherwise have been consumed. Juice also offers an opportunity to mix vegetables with fruit to enhance vegetable palatability.

Bottom line Overall, up to 12 ounces of 100% juice each day is an easy, convenient and cost-effective way for helping adults and children 7 years and older meet the suggested daily servings of fruits and vegetables.



## FRESH, FROZEN, CANNED, DRIED, AND 100% JUICE

#### Does dried fruit cause cavities?

Some people may not eat dried fruit because of their sticky consistency, but a recent article published in Journal of Food Science explored the topic of raisins specifically and oral health because little research has been done since the 1950s.<sup>1</sup> The state of your oral health is influenced by many factors. Before a cavity forms, there are three conditions that are thought to contribute to the formation of dental caries, or cavities.

- Low oral pH: Low oral pH means an acidic oral environment. Cavities happen when acid-producing bacteria settle into the tooth and dissolve the enamel, or protective covering of the tooth, which leaves a hole in the tooth's surface. Certain carbohydrates (especially sucrose – also known as table sugar) increase acid production by bacteria in the mouth. The carbohydrate in raisins is mostly in the form of glucose and fructose which is thought to not be used as readily by the bacteria.
- 2. Adherence of food to teeth: Again, there are different factors that determine the adherence of a food to teeth, including adhesiveness, chewiness, thickness, and moisture content. Foods that are very thick, chewy, and sticky latch onto teeth and may lead to cavities. However, there is little correlation between the perceived stickiness of a food and whether the food actually sticks to your teeth. Raisins, like other fruits and vegetables, are rapidly cleared from the mouth, and actually help clear out other foods that do cause cavities.
- 3. Biofilm bacterial behavior: Cavities can be the result of bacterial imbalance. Your biofilm, or the thin, slimy film of bacteria that adheres to the surface of your teeth, influences whether or not you will develop cavities. Your biofilm is the result of your own biological makeup. As you grow, what you eat influences the biofilm, which can be either positive or negative. When you eat foods that cause bacteria in the mouth to produce acids, you increase the risk of developing cavities. Raisins contain several compounds that positively impact the biofilm and benefit overall oral health.

Bottom Line Fruits and vegetables improve overall oral health by promoting strong teeth and gums. Remember to make half your plate fruits and vegetables every time you eat. Raisins and other dried fruit add variety to your daily fruit consumption. They provide similar nutrition as their fresh counterparts, simply in a more concentrated way.

Reference:

1. Wong A, et al. Raisins and oral health. *J Food Sc.* 2013; 78(51), 26-29. doi: 10.1111/1750-3841.12152

### What about sugar in canned fruit?

All fruit contains naturally occurring sugar. Canned fruit contributes less than two percent of the added sugar in most American diets. Top sources of added sugar in the diet come from soda, energy drinks and sports drinks, grain-based desserts, fruit drinks, dairy desserts, candy, ready-to-eat cereals, sugars and honey, tea, and yeast breads.

To avoid the added sugar found in some canned fruits, consumers can drain and rinse the fruit to reduce sugar content, or select fruit packed in water or 100% juice. But remember, any canned fruit is better than no fruit at all!

#### Sources of Added Sugars in the Diets of the U.S. Population Ages 2 Years and Older



National Cancer Institute. Foods and beverages consumed were divided into 97 categories and ranked according to sugar contribution to the diet. "All other food categories" represents food categories that contribute less than 2% of total added sugar intake. NHANES 2005-2006, Risk Factor Monitoring and Methods, Cancer Control and Population Sciences.

#### Pucker Up!

Some fruits and vegetables are naturally tart, such as cranberries, rhubarb, sour cherries, lemons, or limes. These items provide excellent nutrition, but in order for consumers to find them edible, they may need added sweeteners.



### Is bisphenol A (BPA) safe?

The quick answer is that nothing is as safe and effective as BPA in forming the protective lining in cans, which protects food quality, flavor and nutrition.

After years of intensive study, BPA has been shown to be safe, proven and reliable. Newer studies have also found that the amount of BPA that enters our bodies is extremely small, and that our bodies rapidly process and eliminate it. In fact, a person would have to eat more than 500 pounds of canned food and beverages a day for a lifetime to exceed the approved safe level of BPA set by the Food and Drug Administration (FDA).

Bottom line Leading U.S. and international food safety agencies have evaluated the extensive body of science and continue to affirm its safety in food packaging.

# How much juice can be part of a healthy diet?

Consuming 100% juice is nutritious and is a convenient and tasty part of a healthy diet! However, getting your entire daily recommended amount of fruit and veggies by drinking juice isn't a good idea, since it's easier to drink calories than eat them. The American Academy of Pediatrics recently recommended avoiding juice under the age of 1, a limit of 4-6 ounces of 100% juice per day for children ages 1-6 years old, and up to 12 ounces per day for those who are 7 years of age or older. For maximum nutrition and no added empty calories, be sure that what you are drinking is 100% juice, not "juice drinks." 100% juice does not contain added sugar.

Bottom line Consume most of your fruit and veggies as food, but up to 12 ounces of 100% juice every day can help meet the overall goal of 'half your plate' as fruit and veggies.

# What about the sodium in canned vegetables?

Certainly most Americans need to lower their sodium intake. Canned vegetables, however, contribute less than one percent of the sodium intake in the American diet. (Top sources of sodium in the diet come from breads and rolls, cold cuts and cured meats, pizza, chicken dishes, soups, condiments, cheese, pasta dishes, meat dishes, and snacks.)

The Nutrition Facts panel on canned vegetables must list all of the sodium in the can, despite the fact that much of the sodium is in the water surrounding the vegetables and isn't consumed. Draining and rinsing canned beans reduces sodium by as much as 40% and draining and rinsing canned green beans, peas, and corn can reduce sodium 9%-23%. Additionally, when purchasing canned vegetables, consumers can look for labels that say 'reduced sodium,' 'low sodium,' or 'no salt added.'

Bottom line Canned vegetables can be a part of a nutritious diet and are a great way to help meet the daily goal of filling half your plate with fruit and veggies.

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#### Sources of Sodium in the Diets of the U.S. Population Ages 2 Years and Older





## FRESH, FROZEN, CANNED, DRIED, AND 100% JUICE

# Can I meet my nutrient needs by eating canned fruits and veggies?

A recent study explored the impact of canned fruits and canned veggies on diet quality in children and adults from 2001-2010. Researchers wanted to determine if those who consumed canned produce had higher quality diets than those who do not. In total, 17,344 children (ages 2-18 years) and 24,807 adults ages 19 and older participated. Based on dietary intake, a score was used to measure overall diet quality per 1,000 calories.

According to the research, those who ate canned fruits and vegetables had greater overall fruit and vegetable consumption, better diet quality, and increased nutrient intake compared to children and adults who did not eat canned fruits and vegetables.

**Bottom line** Canned fruit and vegetable consumption is associated with better overall diet quality in both children and adults, as well as increased consumption of all forms of fruits and vegetables. Eating canned fruits and vegetables is an affordable and easy way to include more fruits and veggies in your diet!

CHILDREN	ADULTS	
Ate 22% more total vegetables	Ate 17% more total vegetables	
Ate 14% more total fruit	Ate 19% more total fruit	
Had a diet lower in overall dietary fat	Had overall better diet quality, including lower dietary fat.	
Consumed 3.7% more protein; 7.7% more fiber; 5.8% more potassium; 5% more calcium; and 11.3% more vitamin A	Consumed 7% more dietary fiber and 5% more potassium	
Had the same sodium and added sugar intakes	Had similar sodium and added sugar intakes	
Had comparable body weight and body mass indexes	Had comparable body weight and body mass indexes	

REFERENCE: Freedman, MR, Fulgoni VL. Canned vegetable and fruit consumption is associated with changes in nutrient intake and higher diet quality in children and adults: National Health and Nutrition Examination Survey 2001-2010. *J Acad Nutr Diet.* 2015; S2212-2672(15)01587-7. doi: 10.1016/j.jand.2015.10.013.

### PRODUCE SAFETY & BIOTECHNOLOGY

### So the US has strict standards for use of pesticides, but what about the safety of imported foods?

Food imported into the U.S. is subject to a variety of Federal laws, administered by a number of different Federal agencies. A food safety program of the United Nations and the World Health Organization, known as Codex, plays a key role. Codex develops international food safety and quality standards, including Maximum Residue Limits (MRLs) for pesticides. EPA participates actively in Codex and contributes technical expertise to the development of these international standards and related policies. A database of MRLs, or tolerances, for U.S. specialty crops is maintained by the US Department of Agriculture. This database can be searched by crop or pesticide, for the United States or for 70 foreign countries. The U.S. Food and Drug Administration (FDA) samples imported and domestic foods to ensure that pesticide residues are within established tolerances or are covered by exemptions. In addition, the USDA's Pesticide Data Program,



which monitors pesticide residues on agricultural commodities in the U.S. food supply, includes sampling and analysis of imported fruits and vegetables.

For more information, visit safefruitsandveggies.com

**Bottom Line** USDA's Pesticide Data Program consistently shows that any residues found on either imported or domestically-grown fruits and vegetables pose no safety concern.



### PRODUCE SAFETY & BIOTECHNOLOGY

## Is my produce safe?



We see a lot of information about food recalls and sometimes, tragically, about foods that make people sick. Recalls will continue as we have better testing and better tracking, and the government and industry are committed to making sure consumers know about these incidents and are continuously striving to keep your food safe. It is rare that fruit and vegetables make people sick, but when news of a food-borne illness outbreak is released it is important to pay attention to the reports. In fact, pound for pound, fruit and vegetables are among the safest foods to eat and more microbiological contamination occurs during meal preparation than at the farm.

It is important to follow these rules when handling produce:

- Check produce before you buy. Choose fruit and vegetables that are not damaged or bruised. And be sure that any fresh-cut item (salad mixes, baby carrots, etc.) are refrigerated at the store and at home.
- 2. Wash your hands before and after handling fresh produce.
- 3. Clean utensils and surfaces (don't forget the fridge shelf!) with hot water and soap.
- 4. Rinse all fruit and vegetables under running water (it doesn't have to be hot) before using. This goes for items you're going to peel as well as those where you eat the peel. For hardy items like potatoes, scrub them with a vegetable brush.
- 5. Do not wash fruit and vegetables with detergent or bleach. Fruit and vegetables absorb what you put on them (that's what makes them great for marinating!), so just rinse under running water.
- 6. Keep fruit and vegetables separate from chemicals and raw meats, poultry, and seafood in your cart, in your grocery bags, and in your fridge. Use a different cutting board or be sure you wash the cutting board well after using it for meats and before using it for produce.
- 7. Refrigerate any cut produce within two hours.

Pay attention to recall reports you hear, but get the facts and don't let them scare you away from the delicious and nutritious fruit and vegetables that we all enjoy.

# Are produce items genetically modified (GM or GMO)?

Consumers believe that the use of biotechnology to genetically modify food is prevalent in vegetables and fruit more than any other food, when in fact the majority (>75%) of GM crops are soybeans, canola, sugar beets, cotton and field corn and are fed to animals or are processed into sugar, high fructose corn syrup, vegetable oils, and protein extracts and can be found as an ingredient in an estimated 70% of foods sold in grocery stores today. Almost all produce items in the market today have been developed through traditional cross-breeding, not GM. Some virus-resistant squash and insect-resistant sweet corn have been bred using biotechnology. Biotechnology was critical to saving the Hawaiian papaya crop from a devastating papaya ringspot virus, which threatened to wipe out the entire crop. Two new products, a non-browning apple and potato, were approved by FDA in 2015.

Bottom Line Traditionally bred products or those developed using biotechnology both represent good choices for consumers.

# Are genetically modified foods safe for me to eat?

Genetically modified (GM) foods have a 30-year, spotless record of safety. People have been selectively breeding plants and animals, thereby changing their genetic profile, for thousands of years with no adverse health effects. Genetically modified crops are also more strictly regulated than any other crop in agricultural history, and in 30 years of extensive research, no GM food safety issues have ever been substantiated. In fact, far bigger is the risk of obesity in developed nations from not eating a balanced diet. In developing countries, under-nutrition is of grave concern and biotechnology can actually be helpful at improving nutrition. It's ironic that a technology that could help improve diet quality worldwide, while being more environmentally friendly, is instead the subject of so much misinformation and misperception.

Ultimately, many years and millions of dollars are spent testing the safety of GM crops as required by the USDA, FDA, and EPA. Overall, FDA and major scientific and health organizations such as the American Medical Association, National Academy of Sciences and World Health Organization have found GMs are safe for humans and positive for the environment. More than 2,000 studies show a clear consensus among leading scientific organizations across the world that GM ingredients are safe.



### What about the effects of pesticides?

Leading toxicologists agree—the mere "presence" of pesticide residue on fruit and vegetables does not mean that the food is harmful in any way. The Environmental Protection Agency's current process for evaluating the potential risks of pesticides on food is rigorous and health-protective. Their testing requirements for pesticides used on food are more extensive than for chemicals in any other use category, and include testing targeted specifically to assess the potential risks to fetuses, infants, and children. The Annual Pesticide Data Program confirms that pesticide residues in food do not pose a safety concern. Any residues found in fruit and vegetables are at levels that do not pose risk to consumers' health. Health experts and scientists say produce, grown either conventionally or organically, is safe for everyone to eat.

**Bottom Line** Not only are fruit and vegetables safe and nutritious, Americans should be consuming more of these healthy foods, not less, if they hope to remain healthy and reduce the risk of certain diseases. Consumers need assurance that our nation's food supply continues to be among the safest in the world.

# How do I know if a product contains genetically modified ingredients?

Some interest groups are calling for mandatory labeling of genetically modified foods to allow for choice. However, this would be very expensive since currently 70% of foods in the market already contain genetically modified ingredients. It could also be misleading, since mandatory labels have traditionally been associated with safety risks. If consumers want non-GM foods, a choice has already been provided; simply look for products labeled as 'certified organic' since these must be GM free.

### Are organics free of pesticides?

There is a common misconception that organic produce is pesticide or chemical free. That is not automatically the case. By definition, the term "organic" means that pesticides, if used, come from natural resources, not synthetic products. Just because something is natural doesn't mean it's not dangerous. What makes organic farming different is not the use of pesticides but the origin of the pesticides used. So, unless the source of the produce is known, there is no guarantee that it was grown without pesticides.

Bottom Line Organic and conventionally grown produce both represent good choices for consumers.

### Are organically grown fruit and vegetables more nutritious than conventional produce?

Organic fruit and vegetables have not been shown to be more nutritious than traditionally harvested fruit and vegetables. An analysis of 46 studies published in 2009 by the *American Journal of Clinical Nutrition* concluded that "there is no evidence of a significant difference in nutritional quality between organically and conventionally produced foodstuffs." The authors reported that a small number of differences in nutrient content existed between organically and conventionally produced foods, but were unlikely to be of public health relevance.

Bottom line Eat more fruit and vegetables for better health, regardless of whether they were farmed organically or conventionally.

## Does biotechnology introduce food allergens?

No. For those with food allergies, the use of biotechnology itself will not increase the potential for food allergens and can, in fact, help reduce allergens by breeding allergens out of a food. FDA requires labeling of any food if a protein from one or more of the major food allergens (milk, eggs, wheat, fish, shellfish, tree nuts, soy or peanuts) is present, whether produced through biotechnology or not.

# Why all the opposition against genetically modified foods?

Biotechnology is a complicated subject, and not well understood by most people. Things people don't understand, or have difficulty applying in their own lives, can be frightening. To add to the confusion, GM has been in the news because of legislation introduced in more than 20 states that would require mandatory labels on foods that contain even trace amounts of GM crops. Labeling a food as GM adds an implication that something must be wrong with it, when scientists world-wide believe that GM is not only safe, but critical to providing food for an expanding global population. Efforts are currently underway to pass a Federal GM (GMO) labeling bill to prevent a patchwork of state and local laws that would make inter-state commerce difficult.



# How do phytochemicals work in the body?

We still have much to learn about the bioavailability of phytochemicals in our bodies, but scientists have identified several ways that phytochemicals work. Many phytochemicals are strong antioxidants that help moderate the damage to cells resulting from oxidation, which is a normal process the body uses to produce energy. Phytochemicals are also involved in many of the metabolic pathways that regulate the body's functions. Some seem to work by preventing bacteria from sticking to places they should not be or preventing blood cells from sticking together and flowing freely. Also, some phytochemicals reduce inflammation that occurs in the walls of arteries. Phytochemicals may also enhance the body's ability to detoxify chemicals, slow or stop the growth of cancer cells and even kill cancer cells.

Bottom line Most people tend to eat the same fruit and vegetables. Each fruit or vegetable has a unique mixture of nutrients and phytochemicals. Eating across and within each color group every day is a great way to get the health benefits fruit and vegetables can provide.



# How many phytochemicals are enough?

Beginning in 2005, the amount of fruit and vegetables recommended in the Dietary Guidelines for Americans is higher for every age and gender than in early editions. The newer guidelines suggest about half of your plate or half of what you eat each day should be fruit and vegetables. Currently, there are no national recommendations for the amounts of phytochemicals needed to prevent disease. The Institute of Medicine has updated guidelines (Dietary Reference Intakes) on traditional nutrients, but more research is needed before decisions can be made on effective amounts for phytochemicals.

Bottom Line By eating a variety of fruit and vegetables of all colors, you will get a good mix of vitamins, minerals, and phytochemicals in your diet.

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# Does the color of a fruit or vegetable indicate what phytochemicals it contains?

Color is a good, but not exclusive, indicator of phytochemical content. Many, but not all, phytochemicals are pigments that give plants color. Some phytochemicals are colorless, and some are responsible for taste. Sometimes one color may mask another color. Products in a color group will have varying amounts of the same phytochemical.

# What part of a fruit or vegetable contains the phytochemicals?

Phytochemicals are found in all edible portions of a fruit or vegetable, although they are frequently concentrated in the skin, so eating them with their peels on is a plus.

# What affects the amount of phytochemicals in foods?

Both genes and the environment affect the amount of phytochemicals in foods. Some varieties have higher amounts of phytochemicals than others. Other factors in the environment, like soil, altitude, climate, temperature, plant maturity, the presence of predators, and processing and preparation methods can all influence phytochemical content.

## Are phytochemicals stored in the body?

Carotenoids are fat-soluble compounds, like vitamins A, D, E, and K, and they can be stored in body fat the same way. Also like vitamins, one is much less likely to accumulate toxic levels from whole foods than from concentrated supplements.

Flavonoids are more water-soluble, like B-vitamins and vitamin C. They get washed out of the body and are rarely stored, so food sources of flavonoids may have to be eaten more often than foods containing fat-soluble carotenoids to get their benefits.

# What is the dusty-looking stuff on blueberries and grapes?

The "dusty" look that you see on grapes and blueberries is the fruit's natural preservative called "bloom." Waiting to wash off the natural bloom until right before you eat the fruit will preserve them the longest.

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## PHYTOCHEMICALS & PRODUCE WAX

# Do phytochemicals work with traditional nutrients to promote health?

There are still many unanswered questions in this area, but studies show the greatest health benefits seem to come from eating fruit and vegetables as opposed to taking the isolated nutrients. It appears that the nutrients, and some phytochemicals from food, might work together to produce a greater effect than they may have produced in isolation.

### Do fresh fruits and vegetables have more phytochemicals than canned, frozen, or dried?

Not necessarily. For example, the carotenoids in vegetables and fruit can be absorbed by the body more efficiently once cooked. The process of removing water during dehydration can also help concentrate phytochemicals in dried fruit and vegetables.

# Why are wax coatings used on *fruit and vegetables?*

Many fruit and vegetables make their own natural waxy coating. After harvest, fresh produce may be washed to clean off dirt and soil, but such washing also removes the natural wax. Therefore, waxes are applied to some produce to replace the natural waxes that are lost. This helps retain moisture to maintain quality, helps inhibit mold growth, protects produce from bruising, and prevents other physical damage and disease. Each piece of waxed produce has only a drop or two of wax, and is similar to the wax that you might find in chocolate. These waxes have been approved by FDA and have been used on a variety of foods for decades. Whether natural or applied, wax may whiten on the surface of fruit or vegetables if they have been subjected to excessive heat or excessive moisture. This whitening or chalky appearance is similar to that of a candy bar when you place it in the freezer. Even if this whitening occurs, the produce is safe to eat.

### Can you remove the wax from produce?

While wax on produce is safe, the best way to remove the wax from produce is to peel it. Peeling produce, however, removes some of the nutrients, fiber, and phytochemicals. FDA simply recommends washing produce under running tap water.

## Are there food allergens in produce wax?

Since there are plenty of allergen-free, suitable equivalent waxes, the chances of having a wax on produce that contains an allergen is very, very slim. As of January 1, 2006, unless a supplier wants to be in violation of FDA and risk heavy fines or production shutdown, they are required to label a product if it has one of the eight most common allergenic foods: milk, eggs, fish, crustacean shellfish, tree nuts, peanuts, wheat, soybeans.

# Should I use the produce wash products sold in the produce department?

FDA recommends just washing produce under running water. Soap and other 'sprays' to clean produce are not necessary. Always wash the outside of the produce item even if you aren't going to eat the rind or skin because cutting into produce with a knife can transmit dirt on the surface to the inside. Scrub heartier items like potatoes and cantaloupe.

Bottom Line FDA recommends just washing produce under running water.



## Did you know?

Most produce is hand-harvested, including apples, apricots, avocados, bananas, berries, cherries, dates, figs, all citrus, grapes, mangos, all melons, pears, pineapples, rhubarb, artichokes, asparagus, broccoli, Brussels sprouts, cabbage, cauliflower, celery, corn on the cob, cucumbers, all greens, mushrooms, peppers, fresh tomatoes, and squash.

Only a few are mechanically harvested, including: dried beans, beets, carrots, cranberries (via bogs), onions, potatoes, and radishes. Tomatoes, peas, green beans, and corn are mechanically harvested for canning or freezing.



# Do fruit, vegetables, and beans cause gas?

Gas, or flatulence, can be caused by what you eat or drink. For example, some people have lactose intolerance and can't eat or drink any dairy products. Sometimes adding more fiber to your diet from fruit, vegetables, beans, or whole grains can cause temporary gas that may decrease over time as your body adjusts. Flatulence can also be caused by antibiotics, irritable bowel syndrome, changes in hormone levels, or swallowing air while eating or drinking. Constipation can also cause bloating, but usually not gas. Some other ways to help prevent gas are:

- Eat more slowly
- Chew food thoroughly
- Walk for 10-15 minutes after eating
- Do not chew gum
- Do not drink carbonated beverages

Bottom line Despite initially experiencing gas, most people experience a decline in gas after regularly consuming fiber-rich foods. It might take as long as 2-4 weeks, however.

## What is the difference between a sweet potato and a yam?

Sweet potatoes and yams are constantly confused for one another, but the truth is what you've been calling a yam is most likely a sweet potato. The sweet, orange-colored root vegetable

that is often thought of as a yam

in the United States is actually

a sweet potato. A true yam is

a starchy edible tuber that is

generally imported from the Ca-

ribbean. It differs greatly from the sweet potato in taste, texture, and



Photo courtesy of the North Carolina Sweet Potato Commission

The picture above shows a true yam (left) compared to an orange-fleshed sweet potato (right).

# Is it safe to microwave vegetables in their plastic packaging?

appearance.

For added convenience, many fresh and frozen vegetables are packaged so that they are 'ready-to-microwave'. All plastics intended for food use — whether designed for microwaving or not — must meet stringent U.S. Food and Drug Administration (FDA) safety standards before they are allowed on the market. Many of today's plastic containers, packages and wraps are specially designed to withstand microwave temperatures. If the product indicates that it can be microwaved in the package, then it has been developed for this purpose and is safe.

#### Do I need to take dietary supplements?

If enough fruit and vegetables are included in your diet, chances are that you won't need to take any vitamins or supplements. (But consult your doctor for specific advice on this issue.) Fruit and vegetables contain hundreds of compounds with a long list of health benefits! These compounds are best acquired through whole food consumption, not as a pill or an extract, in part because these food components may be working synergistically with one another to have their positive impact.

Bottom line There is no magic pill to protect you from the development of several leading causes of disease or death. A nutritious diet that contains plenty of fruit and vegetables may be all you need to promote good health.

### Can I afford to buy fruit and vegetables on a limited budget?

When you compare the price of foods by weight or average portion size, vegetables and fruit are less expensive than most dairy, protein, and moderation foods. It's only when you compare price per calorie that less healthy foods are cheaper than fruit and vegetables. According to a 2011 USDA study, getting the recommended amount of fruit and vegetables costs as little as \$2-\$2.50 per day. Average prices ranged from under 20 cents to over \$2 per edible cup equivalent, depending on the specific fruit or veggie.

Bottom line Everyone can eat their recommended amount of fruit and vegetables, even on a budget. Eating more economical produce items, including those in season, canned, frozen, or dried, and substituting meats with more beans and legumes (which count in the vegetable category!) can save money.

# Are potatoes and other starchy vegetables fattening?

It depends on how they are prepared. Potatoes and other starchy vegetables are all naturally low in fat; they just contain less water than other vegetables. It's not until vegetables are covered in butter, deep-fried, or cooked with a lot of bacon and high-fat cheeses, that their calorie count rises, along with their fat and cholesterol content. Potatoes and other starchy vegetables should be considered part of a healthy diet. For example, potatoes are an excellent source for vitamins C and B6, a good source for fiber and magnesium, AND are one of the best sources of potassium in the diet!

Bottom line All vegetables can be part of a healthy diet as long as they are prepared healthfully.

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### OTHER QUESTIONS

## What is Oral Allergy Syndrome?

Eight foods account for 90% of all food-allergic reactions: milk, eggs, peanuts, tree nuts (e.g., walnuts, almonds, cashews, pistachios, and pecans), wheat, soy, fish, and shellfish. Oral Allergy Syndrome is a different type of food allergy that causes allergic reactions in the mouth and throat, thus the name. This can occur when eating certain raw fruits, vegetables, seeds, spices and nuts. These allergic reactions happen mostly in people with hay fever, especially spring hay fever due to birch pollen, and late summer hay fever due to ragweed pollen.

The body's immune system has developed antibodies against pollen, and in Oral Allergy Syndrome, these antibodies bind to structurally similar proteins found in botanically related plants. The most common reaction is an itching or burning sensation in the lips, mouth, ear canal, and/or pharynx and the symptoms may wax and wane with pollen levels. A reaction to one or more foods, in any given category, does not necessarily mean a person is allergic to all foods in that group.

Like pollen allergy, people allergic to latex rubber may react to a banana, avocado, kiwi, chestnut, and papaya.

Cooking often breaks down or alters the trigger proteins so that the immune system doesn't target them, so try cooking or canning the produce item to reduce the possibility of an allergenic reaction if susceptible. Peeling fruit may also help, because most trigger proteins are in the peel.

Bottom Line An oral allergy to fruit or vegetables is rare, but if you have symptoms, try cooking or peeling them first. Don't eat them if they make you uncomfortable.

Foods Most Commonly Associated with Birch, Ragweed, and Grass Pollens

Allergies to each type of pollen may also trigger an allergic reaction to these foods:

Birch

Fruits: apple, apricot, cherry, kiwi, nectarine, peach, pear, plum, prune

Vegetables: anise, beans, caraway, carrot, celery, coriander, cumin, dill, fennel, green pepper, lentils, parsley, parsnips, peanut, peas, potato, tomato

Nuts: almond, hazelnut, walnut Seeds: sunflower Grass Fruits: kiwi, melon, orange, tomato, watermelon

#### Ragweed

Fruits: banana, cantaloupe, honeydew, watermelon

Vegetables: cucumber, zucchini

Source: "Oral Food Allergy Syndrome," Allergy/Asthma Information Association, accessed August 18, 2014, http:// www.calgaryallergy.ca/Articles/English/ Oral\_Food\_Allergy/

## Is the sugar in fruit bad for you?

Fruit contains naturally occurring sugars. This type of sugar is accompanied by other health-promoting qualities of fruit provided by phenols and other phytochemicals, fiber, vitamins, and minerals. Some canned fruit may have added sugar, but this added sugar is not the major sugar culprit in most American diets. (Top sources of added sugar in the diet come from soda, energy drinks and sports drinks, grain-based desserts, fruit drinks, dairy desserts, candy, ready-to-eat cereals, sugars and honey, tea, and yeast breads.)

To avoid the added sugar found in some canned fruit, drain and rinse the fruit to reduce sugar content, or select fruit packed in water or 100% juice. Diabetics will need to count carbohydrates from any fruit (or vegetable) as part of their diabetic exchanges.

Bottom line All fruit can be part of a healthy diet.

### Do acid or alkaline forming foods have an impact on bone health?

There is a theory that alkaline-producing diets counteract acidity, help the body regulate its pH, and thus prevent osteoporosis. This has been promoted in the consumer press and the scientific literature. According to the theory, high dietary protein intakes are detrimental to bone health since protein is an "acid generating" diet component, and structural bone mineral is dissolved to release bicarbonate to neutralize acid and avoid systemic acidosis. In contrast, a diet rich in fruit and vegetables is thought to have the opposite alkaline-producing effect, which would be protective of bone health.

Based on a thorough review of the literature published in 2011, the relationship between acid generating diets and risk of osteoporosis is not confirmed.<sup>1</sup> It is possible that fruit and vegetables are beneficial to bone health through mechanisms other than via the acid-alkaline hypothesis since there is preliminary human and animal evidence that fruits and vegetables have supportive effects on bone. Results from the DASH study, for example, support a beneficial link. Increasing fruit and vegetable consumption from three to nine servings daily decreased urinary calcium loss and lowered biochemical markers of bone turnover.<sup>2</sup>

**Bottom Line** It is possible that fruit and vegetables are beneficial to bone health through mechanisms other than via the acid-alkaline hypothesis since there is preliminary human and animal evidence that fruits and vegetables have supportive effects on bone.

References:

- Fenton TR, Tough SC, Lyon AW, et al. Causal assessment of dietary acid load and bone disease: a systematic review & meta-analysis applying Hill's epidemiologic criteria for causality. *Nutr J* 2011; 10:41 doi: 10.1186/1475-2891-10-41
- Lin PH, Ginty F, Appel LJ, et al. The DASH diet and sodium reduction improve markers of bone turnover and calcium metabolism in adults. J Nutr 2003; 133 (10):3130-3136.



# How should I feed my baby fruits and vegetables?

Always speak with your pediatrician about when to start solid foods. Typically baby food forms of fruits and vegetables can be introduced to the diet after baby has mastered eating single grain infant cereal, which is usually introduced to most babies between 4-6 months. Fruit and vegetable baby foods can be introduced in any order, no hard rule applies. The goal is to add a variety of both fruits and vegetables throughout the first year, while continuing to breastfeed, to help establish healthy eating habits early in life.

These nutrient-rich foods provide several vitamins and minerals that are important for growing children. Vitamin C found in many fruits enhances the absorption of iron when eaten with iron-fortified infant cereal. This is helpful since natural iron stores begin to decline once children are about 6 months old. As baby grows and develops feeding skills, more complex textures may be added to baby's diet. You'll find some baby food products will indicate the developmental stage of the baby or toddler to help parents make appropriate food choices for their child's readiness level.

Some key things to keep in mind when introducing new veggies and fruits:

- It can take up to 10 tries with a new food before your baby decides to give it a go.
- Offer one fruit or veggie baby food (not a mixed variety) and wait about three days before introducing a new food to watch for sensitivities.
- If you're using baby food packed in a pouch, be sure to squeeze it into a bowl or onto a spoon for feeding.
- Growth spurts will determine your baby's hunger. Don't insist on your little one finishing the bowl, but let his fullness cues be the guide.
- Recommended amounts of fruits and vegetables vary depending on the child's developmental stage and age. For example, a baby that can sit with support should aim for 4 Tablespoons a day of both vegetables and fruits, where a crawler should aim for ½ cup of each per day.

Bottom line A variety of fruit and vegetable baby foods should be introduced one at a time after baby has mastered eating single grain infant cereal.

# How do I get my picky eater to eat fruits and vegetables?

Picky eating usually shows up around age 1 or 2 when children are experiencing developmental changes and are becoming more independent. Your preschooler may also vocalize what they want and do not want to eat, making mealtime challenging. Don't give up! Here are some tips to help keep fruits and vegetables in your child's diet:

- Let your child explore food, even if it gets messy. Young children often need to look at, touch, smell, and taste a food before eating it.
- Include a food you know she'll eat, and then let her choose if she wants to try the other foods being served. Don't prepare a separate meal—it may encourage her to continue this type of behavior at mealtime. Keep serving her healthy choices until she becomes familiar with the food.
- Be a good role model and eat your fruits and veggies even if you don't like them. When a child sees her mom, dad, or siblings eating a nutritious food, she may be more willing to try it.

- Let her pick out a vegetable or fruit at the grocery store, and then help you wash and prepare it. Children are more willing to try foods they help prepare.
- **Don't bribe with sweets.** This teaches her that some foods are desirable while others aren't.
- Follow hunger and fullness cues. Never force a child to finish a meal. Remember this rule: It's your job to provide nutritious foods at regular meal and snack times. Your child decides whether and how much to eat.
- Try fruits and vegetables at different times throughout the day. Research shows that toddlers are fed about seven times per day and consume about ¼ of their calories as snacks.<sup>1</sup> Fruit and vegetables can be a great nutrient-dense snack choice.

Bottom line Don't give up and continue to encourage fruit and vegetable consumption even when it's a tough battle.

Reference:

1. Skinner JD, Ziegler P, Pac S, Devaney B. Meal and snack patterns of infants and toddlers. *J Am Diet Assoc* 2004; 104:S65-S70.



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# When talking about beans, what is the most consumer-friendly terminology?



With the continuing importance of plant based foods for health, it is critical that we use terminology that consumers understand when discussing beans (legumes). Research on the term "legumes" shows that less than 2 out of 3 consumers believe beans are legumes, while one out of 3 would include peanuts and one out of 4 would include bean sprouts.<sup>1</sup> The term "pulses," which is sometimes used internationally to describe the "family" of beans, peas and lentils, is unknown to, or misunderstood by, Americans. One in 3 would not classify any type of bean, pea, or lentil, with the term "pulse." In fact, only 33% have ever heard of the term, with only 29% believing that they know what the term means. And, of those that think they know, more than half believe the term is related to the circulatory system.

Also, since canned beans are purchased by 80% of U.S. households, while bagged beans are only purchased by 20% of US households,<sup>2</sup> and since canned beans outsell bagged beans by 11-1,<sup>3</sup> it is critical that the term used be inclusive of canned beans. Consumer research shows, however, that more than 9 out of 10 consumers exclude canned beans when asked to associate foods that are "dry" or "dried" beans.<sup>4</sup> This same consumer research has shown that the best term to use is "Beans" followed by a descriptor of the top-selling types, i.e., "Beans, such as black-beans, kidney beans, and pinto beans." This term maximizes consumer understanding and is inclusive of all packaging forms.

Bottom Line Instead of the term 'legumes' or 'pulses' when referring to beans, use the term 'beans' followed by a descriptor, i.e. 'beans, such as black-beans, kidney beans, and pinto beans.'

References:

- 1. MMR Research Associates. (2015) Bean Terminology Research. Unpublished raw data.
- 2. Nielsen Consumer Panel Services, Calendar Year 2014
- 3. Nielsen Scantrack Expanded All Outlets Combined, Based on Units (million) for the 52 weeks ending 2/14/15
- 4. MMR Research Associates. (2015)

A colleague tells me we cannot get enough vitamins from our foods anymore because our soils are depleted. She says the vegetables today do not have the same nutrition value as in say, the 50's. Is this true?

First, uncertainties associated with changing analytical methods call into question how comparable are 60-year old data vs. new data. That said, it is true that environmental factors such as weather, soil type, and soil mineral content result in variable nutrient content in edible plants. Plant genetics also play a factor, as does post-harvest handling and cooking. Soil depletion is a concern, but farmers have become much better at preserving soil health and optimizing nutrients so they have healthy plants and strong yields that can be sustained year after year. Any gross deficiencies or excesses in soil nutrients for the plant result in a poor crop, so there is plenty of economic motivation for farmers to optimize their soil.

Furthermore, plants can (easily) be bred for higher nutrition if there were a need. One can argue that while old vs. new data may show nutritional composition differences, it likely isn't nutritionally significant. For example, whether a <sup>1</sup>/<sub>2</sub> cup of peppers contains more than the current 140 mg of vitamin C isn't really that important when only 75-90 mg/day of vitamin C is needed by the body in the first place. Seed breeders today have to balance already very nutritious fruit and vegetables with other factors that are also important to consumers, like: improved plant disease resistance, so less use of pesticides, herbicides or fungicides; increased plant productivity, resulting in less expensive food; increased plant stress tolerance to manage changes in climate, ultimately resulting in less expensive food; more attractive fruit/vegetables to increase the desire to eat them; better shelf-life so produce doesn't spoil as fast in the fridge at home, resulting in less waste, and ultimately less expensive food; or better flavor, which increases the desire to eat more.

Bottom Line Ultimately, not eating enough (already very nutritious) fruit and vegetables is much more of a problem than any minor changes in nutritional composition that may (or may not have) occurred over time.



### Head lettuce is the only lettuce my family likes but it doesn't have any nutrients so should I even bother?

It is true that darker greens, like spinach and Romaine and leaf lettuce are very nutritious, providing Vitamin A and other carotenoids, vitamin C and potassium. The cruciferous greens, like arugula, collard greens, kale, mustard greens and turnip greens have these same great nutrients, but they also contain other beneficial compounds, called isothiocyanates and indoles, that are unique to cruciferous vegetables. The most nutritious greens are those that you actually EAT, however, so any of them are fine, including head lettuce!

Head lettuce is still very important in salads, especially for those who prefer its crunch. It is a great carrier for other salad ingredients like tomatoes, peppers, beans, carrots, cucumbers, mushrooms, avocados and any variety of fruit. As long as you don't overindulge on the cheese, bacon bits, and creamy dressings, head lettuce may be just the ticket to get finicky eaters to eat more vegetables in the form of salads.

Lettuce/salad consumption decreased between 2009 and 2014 by 9 salads per person each year. Much of this is thought to stem from a decline in side dishes generally, which include salads, as people strive to make more convenient meals. But some of the decline could be because people don't think they should eat head lettuce and they don't like leaf lettuce, so they don't eat any lettuce at all.

Bottom Line Head lettuce is still very important in salads, especially for those who prefer its crunch. It is a great carrier for other vegetables like tomatoes, peppers, carrots, and beans, which may help finicky eaters eat more vegetables.

# What are those 4-digit numbers on the stickers when I buy produce?

Those numbers are called price look-up codes (PLU), which have voluntarily been used by grocers since 1990 for pricing, inventory control and sales data to identify bulk produce (and related items such as nuts and herbs).

PLU codes are 4 or 5 digit numbers and will appear on a small sticker applied to the individual piece of fresh produce. The PLU number identifies produce items based upon various attributes which can include the commodity, variety, growing methodology (e.g. organic), and the size.

The 4-digit PLU codes for produce are randomly assigned within a series of numbers within the 3000 and 4000 series. There is no intelligence built into the 4-digit code. For example, no one number within the 4-digit number represents anything in particular. The 4-digit codes are for conventionally grown produce; 5-digit codes are used to identify organic produce. The prefix of '9' would be placed in front of the 4-digit conventionally grown code for organic produce. Though the '8' prefix was once reserved for GMO produce items, the prefix was never used by grocers. In the future, PLU codes will utilize the '8' prefix to keep up with growing demand for more PLU codes world-wide. Unlike the '9', the leading digit '8' will have no significance.

The PLU coding system is voluntary. The numbers are assigned by the International Federation for Produce Standards (IFPS), a global coalition of fruit and vegetable associations that standardizes their use globally. There are currently over 1400 PLU codes issued for fresh produce and produce related items.

**Bottom Line** Those 4-digit numbers are called price lookup codes (PLU), which are used by grocers to identify sales of bulk produce (and related items such as nuts and herbs). They are randomly assigned. The prefix of '9' is placed in front of the 4-digit conventionally grown code to depict organic produce. You may see the prefix '8' in the future and it has no significance. Grocers just needed more PLU numbers for produce.



# Section 3: Product Specific Promotion Tools



# APPLE

#### How to Select

Choose firm, shiny, smooth-skinned apples with intact stems. Should smell fresh, not musty.

#### How to Store

Refrigerate in plastic bag away from strong-odored foods. Use within 3 weeks.

#### Links to More Information

<u>Apple Adventure</u> <u>Apple Dipping Bar</u> <u>Red Delicious Apples</u> <u>Storing Apples</u> <u>Using Apples in Different Ways</u> <u>Apple Variety</u>

#### 1 large (242g) Serving size Amount per serving Calories % Daily Value\* Total Fat 0g 0% Saturated Fat 0g 0% Trans Fat 0g Cholesterol 0mg 0% Sodium Omg 0% Total Carbohydrate 34g 12% Dietary Fiber 5g 18% Total Sugars 25g Includes 0g Added Sugars 0% Protein 1g Vitamin D 0mcg 0% Calcium 20mg 2% Iron 0mg 0% Potassium 260mg 6% Vitamin C 5mg 6% \*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice. Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

**Nutrition Facts** 

#### Social Media Posts

**#TipoftheDay:** Individual boxes/cups of raisins, apple sauce or fruit cocktail, make a great alternative to candy.

**#TipoftheDay:** Mom! Raisins and other dried fruit like apricots, cranberries, apples, blueberries - even bananas are a perfect go anywhere snack for kids!

**#TipoftheDay:** Applesauce replaces <sup>1</sup>/<sub>2</sub> cup of fat in recipes for many baked goods!

**#TipoftheDay:** Choose  $\frac{1}{2}$  cup of applesauce for baking instead of a  $\frac{1}{2}$  of cup oil.

**#DidYouKnow** fresh apples float because 25 percent of their volume is air?

**#DYK** apples, pears, peaches, plums, apricots, cherries, blackberries, raspberries, and strawberries are all members of the rose family?



**#DidYouKnow** there's over 7,500 known varieties of apples grown worldwide?

Thirsty anyone? Take a gulp of this refreshing Appleade: <u>http://ow.ly/Exgqu</u>

Impress ur family in 30min with our Fig, Apple & Chicken Stir Fry! Quicker than pizza delivery! <u>http://ow.ly/qfudB</u>

These Cinnamon Apples are a quick & healthy way to satisfy your sweet tooth --> <u>http://ow.ly/SifFT</u>

Bring them home for the holidays with this hearty and delicious Apple Corn Chili: <u>http://ow.ly/r60Ak</u>

Apples and Brussels Sprouts team up for a knockout side dish – roasted and seasoned to perfection: <u>http://ow.ly/tZDdc</u>

#DidYouKnow it takes apple trees 4-5 years to produce their first fruit?

#DidYouKnow one apple provides 20% of daily fiber needs?

Forks UP! A #MeatlessMonday Flavor Fest --> Try this Crunchy Apple Walnut Salad for lunch today: <u>http://</u> <u>ow.ly/wKcQ4</u>

### **Nutrient Content Claims**

low in fat saturated fat free cholesterol free sodium free good source of fiber

### **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Apples are low in fat.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Apples are sodium free.
- Diets low in sodium may reduce the risk of high blood pressure. Apples are naturally sodium free!
- Apples, as part of a low sodium diet, may reduce the risk of high blood pressure.

# Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Apples contain no saturated fat or cholesterol.

# Fiber-Containing Grain Products, Fruits, and Vegetables and Cancer:

Low fat diets rich in fiber-containing grain products, fruits, and vegetables may reduce the risk of some of cancers, a disease associated with many factors. Apples are a good source of fiber.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Apples are a good source of fiber.

#### Apple Health Web Pages

Health and Nutrition: <u>usapple.org/health-nutrition/</u>

Apple Health Benefits: <u>usapple.org/wp-content/up-</u> loads/2016/04/Health-Benefits-Research-Summary Feb2016-2.pdf



#### Healthy Recipes with Apples



Savory Stuffed Apples



Easy Oven Fish Sticks with Spinach Basil Dipping Sauce and Spiced Apples



Tuna Apple Salad Sandwich



Apple Banana Salad with Peanuts





<u>Apple Corn Chili</u>



Apple Pistachio Crisp



Apple & Chicken Salad



Apple, Fennel & Chicken Salad with Couscous



<u>Shredded Brussels Sprouts</u> and Chunck Apple Sauté with Pork Tenderloin



Pan Seared Salmon & Apple Salad









# AVOCADO

#### How to Select

Choose avocados with firm skin and no soft spots, firm but yielding to gentle pressure when ripe.

#### How to Store

Store unripe avocados in paper bag at room temperature. Refrigerate when ripe for 2-3 days.

#### Links to More Information

Avocados at a Picnic Avocados for Lunch Avocados for Special Occasions Avocados in Cornbread, Pizza, & More Different Flavors for Your Avocados Grilled Avocados Keeping Your Guacamole Fresh Making a BLAST Sandwich Making Guacamole Making Salsa with Avocados Opening Your Avocado Quick Avocado Dishes with Canned Vegetables

Nutrition Facts <sup>3</sup> servings per container Serving size 1/3 medium (50g)				
Amount per serving Calories	80			
	ily Value			
Total Fat 8g	109			
Saturated Fat 1g	5%			
Trans Fat 0g				
Polyunsaturated Fat 1g				
Monounsaturated Fat 5g				
Cholesterol Omg	0%			
Sodium Omg	0%			
<b>Total Carbohydrate</b> 4g	19			
Dietary Fiber 3g	119			
Total Sugars 0g				
Includes 0g Added Sugars	0%			
Protein 1g				
Vitamin D 0mcg	0%			
Calcium 6mg	0%			
Iron 0.3mg	2%			
Potassium 254mg	6%			

a serving of food contributes to a daily diet. 2,000 calorie a day is used for general nutrition advice.

Label developed by Hass Avocado Board, approved by USDA.

<u>Ripening Hass Avocados</u> <u>Selecting Hass Avocados</u> <u>Using Avocados for Breakfast</u>

#### Social Media Posts

Lighten the load for lunch and enjoy this scrumptious Tropical California Avocado Salad: <u>http://ow.ly/UM7NW</u>

**#TipoftheDay:** Add one more! Add fresh fruit to your salads — oranges, grapes, kiwi, and avocado are naturals!

This twist on classic bruschetta will make breakfast extra special! Try this Avocado Breakfast Bruschetta: <u>http://ow.ly/x9Z4Q</u>

This Mango & Avocado Chutney is DELISH! <u>http://</u> <u>ow.ly/P3yxr</u>

This Hass Avocado Stuffed Mushrooms recipe is an awesome appetizer to accompany any party! <u>http://ow.ly/yYlfz</u>



### Nutrient Content Claims

low in saturated fat cholesterol free sodium free sugar free

#### **Health Claims**

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
   Avocados are sodium free.
- Diets low in sodium may reduce the risk of high blood pressure. Avocados are sodium free.
- Avocados, as part of a low sodium diet, may reduce the risk of high blood pressure.

### Healthy Recipes with Avocado



Avocado Melon Breakfast Smoothie

Avocado, Potato, and Grilled Chicken Salad



Grilled Chicken and Avocado Quinoa Pilaf



Avocado Breakfast Bruschetta



Avocado Super Summer Wrap



Grilled Shrimp with Cantaloupe Avocado Salsa



Pineapple Avocado Chicken Salad



Salmon, Avocado and Strawberry Rice Bowl

California Avocado Commission | CaliforniaAvocado.com

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# BANANA

#### How to Select

Choose bananas with slight green on stem and tip. They should be firm, without bruises. Ripens after harvest.

#### How to Store

Store unripe bananas at room temperature. Store ripe bananas in refrigerator for up to two weeks; skin may turn black.

#### Links to More Information

Make a Banana Breakfast Sandwich Making a Banana Split Peeling a Banana Selecting & Storing Bananas Variety of Bananas What to do with Bananas

### Social Media Posts

**#TipoftheDay:** Help kids make frozen fruit kabobs using pineapple chunks, bananas, grapes and kiwis.

**#TipOfTheDay:** Pour less cereal to make room for MORE tasty fruits like bananas, peaches or multiberries! Calories down. Nutrition UP!

Facts

% Daily Value

0%

0%

0%

0% 11%

11%

0%

0%

0%

0%

10%

10%

1 medium (126g)

Serving size

Total Fat 0g

Sodium Oma

Protein 1g Vitamin D 0mcg

Calcium 0mg

Potassium 450mg

Vitamin C 9mg

Iron 0mg

Amount per serving Calories

Saturated Fat 0g

Total Carbohydrate 30g Dietary Fiber 3g

Includes 0g Added Sugars

\*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a

day is used for general nutrition advice. Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

Total Sugars 19g

Trans Fat 0g Cholesterol 0mg

**#TipoftheDay:** Instead of having sugary toaster pastry for breakfast, have a piece of whole wheat toast spread w/peanut butter & topped w/sliced banana.

Rough night? Protein pack your breakfast w/ Peanut Butter & Banana Oatmeal. Tasty way to start your day! <u>http://ow.ly/p1WHX</u>

This Banana Raspberry Smoothie will get you on the right track in the AM: <u>http://ow.ly/MySku</u>

Any way you slice it, banana splits are great! #Watch this video for a quick treat: <u>http://ow.ly/MyZ7g</u>

Grilling? Put a spin on the norm & add FVs to the mix! Here's 9 tips for grilling FVs + a Grilled BANANA recipe: <u>http://ow.ly/zkm8l</u>

You just can't go wrong with a banana! Enjoy this Banana in a Blanket: <u>http://ow.ly/zOsug</u>



### Nutrient Content Claims

fat free, saturated fat free, cholesterol free sodium free good source of fiber good source of vitamin C good source of potassium

#### **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Bananas are low in fat.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Bananas are sodium free.
- Diets low in sodium may reduce the risk of high blood pressure. Bananas are sodium free.
- Bananas, as part of a low sodium diet, may reduce the risk of high blood pressure.

#### **Dietary Saturated Fat & Cholesterol & Risk** of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Bananas contain no saturated fat or cholesterol.

#### Fiber-Containing Grain Products, Fruits, and **Vegetables and Cancer**

Low fat diets rich in fiber-containing grain products, fruits, and vegetables may reduce the risk of some of cancers, a disease associated with many factors. Bananas are a good source of fiber.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Bananas are a good source of fiber and vitamin C.

#### Potassium & High Blood Pressure/Stroke (Authoritative Statement):

Diets containing foods that are a good source of potassium and that are low in sodium, like bananas, may reduce the risk of high blood pressure and stroke.

Banana Berry Pancakes

Banana in a Blanket

Fruit Soup

delmontefresh

DolePins

delmontefresh

### **Healthy Recipes with Bananas**







<b>Nutrition Facts</b>				
Serving size 1/4 medium (134g)				
	- · J/			
Amount per serving	50			
Calories	50			
% Daily	Value*			
Total Fat 0g	0%			
Saturated Fat 0g	0%			
Trans Fat 0g				
Cholesterol Omg	0%			
Sodium 20mg	1%			
Total Carbohydrate 12g	4%			
Dietary Fiber 1g	4%			
Total Sugars 11g				
Includes 0g Added Sugars	0%			
Protein 1g				
Vitamin D 0mcg	0%			
Calcium 20mg	2%			
Iron 0mg	0%			
Potassium 240mg	6%			
Vitamin A 300mcg	35%			
Vitamin C 48mg	50%			
*The % Daily Value tells you how much a nutrient serving of food contributes to a daily diet. 2000 ca day is used for general nutrition advice.				
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4				

# CANTALOUPE

#### How to Select

Choose fragrant, symmetrical cantaloupes, heavy for size with no visible bruises and yellow or cream undertone. Stem end should give to gentle pressure.

#### How to Store

Store uncut cantaloupes at room temperature for up to 1 week. Refrigerate cut melon in airtight container up to 5 days.

#### Links to More Information

Cantaloupe Desserts Choosing Cantaloupe Melon Soup Slicing Cantaloupe

#### Social Media Posts

Cantaloupe Chicken Salad -- oh yes! <u>http://ow.ly/SGrp301PjEq</u>

Cantaloupe...fragrant, sweet, delicious & nutritious --> <u>http://ow.ly/SEff301PjOF</u>

#### **Nutrient Content Claims**

fat free, saturated fat free, cholesterol free very low in sodium high in vitamin C high in vitamin A

#### **Health Claims**

#### Dietary Fat & Cancer:

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Cantaloupe is fat free.



#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
   Cantaloupe is very low in sodium.
- Diets low in sodium may reduce the risk of high blood pressure. Cantaloupe is very low in sodium.
- Cantaloupe, as part of a low sodium diet, may reduce the risk of high blood pressure.

# Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Cantaloupe contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Cantaloupe is high in vitamins A and C.

#### Healthy Recipes with Cantaloupe



Broccoli Omlette with Cantaloupe slices



Corner Kick Pita Pocket



Grilled Shrimp with Cantaloupe Avocado Salsa

 Del Monte Fresh Produce N.A., Inc. | FreshDelMonte.com

 Image: DelMonteFreshProduce
 Image: delmontefresh

 Image: DelMonteFreshProduce
 Image: delmontefresh







# **100% GRAPE JUICE** MADE WITH CONCORD GRAPES

Sponsored By:



#### Usage

100% grape juice made with Concord grapes isn't just a delicious drink, it can add color, natural sweetness and nutrition to a variety of dishes, including smoothies, vinaigrettes, frozen treats, glazes, and sauces.

#### Nutrition

Welch's 100% Grape Juice is a fat free, cholesterol free and low sodium food. Every 8-ounce glass is made with more than 40 Concord grapes and it provides 2 servings (1 cup) of fruit with no added sugar (the grams of sugar listed on the Nutrition Facts Panel) of 100% grape juice refer to the naturally-occurring sugars found in the fruit.) The product is high in the antioxidant vitamin C. It contains no artificial colors, flavors or preservatives and delivers 250 mg of grape polyphenols in every 8-ounce glass.

### Links to More Information

Welchs.com Welchs.com/health Welchs.com/recipes Grapescience.com Welchs.com/our-community/the-official-welchs-blog



Potassium 140mg 4% Total Carbohydrate 38g 13% Sugars 36g\*\* Protein 1g Vitamin C 120% • Calcium 2% Magnesium 6% • Manganese 20%

**CONTAINS 100% JUICE** 

**Amount Per Serving** Calories 140

Total Fat Og

Sodium 15mg

Nutrition Facts Serving Size: 8 FL. 0Z. (240mL) Servings Per Container: 8

% Daily Value\*

0%

1%

Not a significant source of Fat Cal, Sat Fat, Trans Fat, Cholesterol, Fiber, Vitamin A and Iron. Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher

or lower depending on your calorie needs: Calories: 2,000 2,500 Total Eat I see them CEO 000

Iolal Fal	Less man	bby	oug
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
<b>Total Carbohydrate</b>		300g	375g
Dietary Fiber		25g	30g
		1000	

\*Note that the nutrition information is specific to Welch's 100% Grape Juice (64-ounce bottle). Visit welchs.com for more details

#### Social Media Posts

Can drinking 100% grape juice made with Concord grapes help promote healthy circulation? Find out! <u>http://ow.ly/S34Mo</u>

**#Infographic:** Thanks to the Concord grape, 100% grape juice helps support a healthy heart + healthy circulation <u>http://ow.ly/ZyOj302DoOo</u>



**#Recipe:** Sizzling steak meets naturally sweet 100% grape juice in these Concord Grape Infused Beef Kebobs: <u>http://ow.ly/ys8Px</u>

**#DYK?** Many of the natural plant nutrients in 100% grape juice made w/Concord grapes are the same as those in red wine **#hearthealth** 

THE way to get the #hearthealth benefits of the purple Concord grape is by drinking 100% grape juice: <u>http://ow.ly/eT4N302DpJq</u>

**#DYK?** 100% grape juice made w/ the Concord grape has many of the same #hearthealth benefits as red wine: <u>http://ow.ly/3RpC302DoZj</u>

**#Infographic:** Think purple produce (like Concord grapes and 100% grape juice) for **#hearthealth**: <u>http://ow.ly/eT4N302DpJq</u>



**#Juicy #Tip:** Freeze 100% grape juice made w/ Concord grapes in ice cube trays to add color, flavor and nutrition to seltzer water

**#TipoftheDay:** 100% grape juice provides real fruit nutrition squeezed from whole Concord grapes without any added sugars

Sip smart! **#MyPlate** beverage guidelines recommend water, low-fat/fat-free milk or 100% fruit juice, like 100% grape juice

**#Fruit #Fact:** Most families don't get enough fruit each day. Good news, 100% grape juice can help! Just 4oz = 1 serving (1/2c) of fruit

**#Fun #Fact:** Concord grapes were first grown in Concord, MA – making them one truly American Superfruit!







Unlike table grapes, Concord grapes have a thick, dark purple skin + crunchy seeds. That's where their polyphenols can be found!

100% juice, like grape juice, packs in more nutrition than many other beverage options. Get the facts here: <u>http://ow.ly/MWBf30214em</u>

100% grape juice can be a delicious ingredient in many **#hearthealthy** recipes, including entrees! Check 'em out <u>http://ow.ly/CXyQ30214m9</u>

**#DYK?** Emerging science suggests that 100% grape juice made w/ Concord grapes may provide cognitive health benefits.

**#DYK**: only 3% of produce eaten comes from the purple/blue group? Pump up your purple w/a glass of 100% grape juice made w/Concord grapes





100% grape juice made w/ Concord grapes isn't just a delicious drink – You can cook w/it too! http://ow.ly/ daOx302I4H2 **#recipe #ideas** 

**#DYK?** 100% juice is a delicious and nutritious way to squeeze more fruit into the day. Get the facts here: <u>http://ow.ly/MWBf302I4em</u>\_\_\_\_\_\_

Fresh Concord grapes are only found for a few short weeks. 100% grape juice made w/Concord grapes can be enjoyed year-round. Win!

Avoiding **#addedsugars?** 100% grape juice has none! AND you'll get natural plant nutrients (polyphenols) to help support a #healthyheart



### **Health Claims**

# Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. 100% grape juice contains no saturated fat and no cholesterol.

#### Sodium and Hypertension:

Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. 100% grape juice is a low sodium food.

# Structure Function Claims & Nutrition Messages

# 100% grape juice is the way to get the delicious taste and nutrition power of the Concord grape:

Concord grapes are bold, distinctive and delicious, but that's not all. Like red wine, this North American grown berry features polyphenols, which are naturally occurring plant nutrients that can help promote a healthy heart.

100% grape juice is made by crushing the whole Concord grape – skin, seeds, and all – to release healthy plant nutrients (polyphenols) straight from the grape into the juice.

#### Helps support a healthy heart: (examples)

Thanks to the dark purple Concord grape, 100% grape juice is one delicious way to help support a healthy heart.

100% grape juice made with Concord grapes helps support/promote a healthy heart.

Nearly 20 years of research shows that thanks to the Concord grape, 100% grape juice can help support a healthy heart.

100% grape juice made with Concord grapes delivers naturally occurring plant nutrients called polyphenols, which give the grape its purple color and can help support a healthy heart.

100% grape juice made with the Concord grape delivers a lot of the same polyphenols, and a lot of the same heart-health benefits as red wine.

#### Helps support healthy circulation: (examples)

100% grape juice made with Concord grapes can help support a healthy heart by contributing to healthy blood vessels and promoting healthy circulation.

Research shows that 100% grape juice made with Concord grapes can help promote/support healthy circulation.

Healthy circulation plays a key role in supporting a healthy heart, which keeps your blood pumping and energy flowing.

While more research is needed, emerging science suggests that 100% grape juice made with Concord grapes may provide benefits in other areas of health, including cognitive function.

#### Media Statement

Named for its birthplace of Concord, MA, the Concord grape is one truly American Superfruit. This one-of-a-kind, dark purple grape was first cultivated to thrive in the harsh climate and soil of the northeastern United States, which is why it's only found in certain microclimates. Harvested for just a few short weeks in the fall, the Concord grape is bold, delicious and delivers naturally-occurring plant nutrients called polyphenols. Not only do polyphenols give Concord grapes their signature purple color, research has shown they can also deliver benefits to promote health, including heart health. The slip-skin, seeded Concord grape doesn't travel well so it's hard to find fresh. That's why the best, most convenient and year-round way to ensure you're getting the health benefits of this special grape is by drinking 100% grape juice, which is made by squeezing whole Concord grapes – skins, seeds and all – to release polyphenols straight from the grape into the juice, without any added sugars. In fact, nearly 20 years of research shows that thanks to the Concord grape, 100% grape juice helps support a healthy heart. And, while more research is needed, preliminary studies suggest that it may provide benefits in other areas of health, including cognitive function.

#### Substantiating Research on Health Benefits

Vislocky LM, Fernandez ML. Biomedical effects of grape products. *Nutr Rev. 2010; 68:656-670.* http://onlinelibrary.wiley.com/doi/10.1111/j.1753-4887.2010.00335.x/abstract

Vislocky LM, Fernandez ML. Grapes and grape products. *Nutr Today. 2013;* 48(1):47-51. http://journals.lww.com/nutritiontodayonline/Abstract/2013/01000/ Grapes and Grape Products Their Role in Health.8.aspx

Wightman JD, Heuberger RA. Effect of grape and other berries on cardiovascular health. *J Sci Food Agric. 2015; 95(8):1584-97.* <u>http://www.ncbi.nlm.nih.gov/pubmed/25171728</u>



### **Typical Consumer Questions**

# *Is 100% fruit juice a nutritious choice for me and my family?*

Yes, fresh, frozen and canned fruit, as well as 100% juice, each count toward daily fruit servings and provide key nutrients to support a healthy lifestyle. In fact, leading health professionals and organizations agree that 100% fruit juice can be part of a healthy diet and can help people meet their daily goals for fruit intake. 100% juice, like 100% grape juice, is a nutrient-dense beverage that provides vitamins, minerals and beneficial plant nutrients, like polyphenols. Additionally, 100% juice contains only naturally occurring fruit sugars and no added sugars.

For health professionals looking for more on the science behind 100% fruit juice, read <u>Whole Truth About 100%</u> <u>Fruit Juice</u> on Grapescience.com.

#### What is unique about the Concord grape?

Named for its birthplace of Concord, MA, the Concord grape is one truly American Superfruit. This one-of-a-kind, dark purple grape is bold, delicious and delivers natural plant nutrients called polyphenols. Not only do polyphenols give Concord grapes their signature purple color, research has shown that they can also deliver benefits to promote health. In fact, nearly 20 years of research shows that 100% grape juice made with Concord grapes helps support a healthy heart. And, while more research is needed, preliminary studies suggest that it may provide benefits in other areas of health, including cognitive function.

#### How is the Concord grape different from other grapes?

Concord grapes are distinct from other grapes, including many table grapes, because they have a thick, dark purple skin and crunchy seeds.

Dark purple seeded grapes, like the Concord grape, have more polyphenols than many table grapes, because these healthy plant nutrients are concentrated in the seeds as well as in the colorful skin. In fact, the darker the grape's color, the more polyphenols you'll likely find.

# What are the benefits of drinking 100% grape juice made with Concord grapes?

Whole Concord grapes are used to make 100% grape juice, with no added sugars. By drinking 100% grape juice, you

can be sure you're getting the heart-health benefits offered by the Concord grape.

Additionally, fresh Concord grapes are difficult to find: they have a very short harvest season and grow only in specific regions of North America. Plus, they are delicate and don't travel well. Eating whole Concord grapes versus drinking 100% grape juice may actually deprive you of getting the full polyphenol potential and health benefits of the grape. Most people discard the grape's crunchy seeds and skin – which is where you'll find the grape's polyphenol (plant nutrient) power.

Nearly 20 years of research shows that 100% grape juice made with Concord grapes helps support a healthy heart.

#### Can you get the same benefits from 100% grape juice made with Concord grapes as you can from red wine?

While the alcohol in red wine has been shown to provide heart-health benefits, 100% grape juice made with Concord grapes can be an option for those that choose not to drink alcoholic beverages. Research suggests that, in addition to the alcohol, the natural plant nutrients (polyphenols) in red wine can play a role in supporting heart health, and many of these same polyphenols can also be found in 100% grape juice made with Concord grapes. To build on that, nearly 20 years of research says that 100% grape juice made with Concord grapes can help support a healthy heart.

#### Can I get the same heart-health benefits by eating whole Concord grapes instead of 100% grape juice made with Concord grapes?

A heart-healthy diet includes plenty of fruits and vegetables, as well as whole grains, lean meats, legumes and low fat dairy. Research suggests that polyphenols, like those found in Concord grapes, can help promote a healthy heart. While Concord grapes deliver these beneficial plant nutrients and can contribute to a heart-healthy diet, there are a couple of facts to consider:

- 1. The vast majority of the research in this area has been conducted on Concord grape juice.
- Concord grapes are not readily available throughout the year. Harvest season is fairly short —just a few weeks each fall—and harvest takes place in select locations in North America.



As a complement to whole fruit, 100% grape juice made with Concord grapes makes it easy to squeeze in the heart-health benefits of Concord grapes as part of a healthy, balanced diet.

#### What are polyphenols?

Polyphenols are naturally occurring plant nutrients that are found in a variety of plant foods, like onions, tea, red wine, Concord grapes and other dark berries, and certain nuts. Polyphenols naturally protect plants against harm and often contribute to the flavor and color of fruits and vegetables. These plant nutrients give Concord grapes their purple color, and research shows that they can deliver benefits for health.

# Where can I learn more about the health benefits of Concord grapes and grape juice?

For more information on the science-backed health benefits of the Concord grape and 100% grape juice made with Concord grapes, visit the Grape Science Center at grapescience.com.





<u>100% Juice Toolkit</u>



All Forms Brochure



<u>100% Juice & Health: Separating</u> Facts from Fiction – Fact Sheet



<u>Uncork the Secrets of Grape Juice -</u> <u>Infographic</u>









Whole Truth About 100% Fruit Juice (Health Professional Tool)

HEALTHY HEARTY





Power of the Concord Grape (Presentation)





### Healthy Recipes with 100% Grape Juice made with Concord Grapes



Easy Breakfast Smoothie Pops



Concord Grape Gummies



Soothing Grape Tea



Roasted Root Vegetables



Chicken Tacos with Tomato and Grape Juice Salsa



Spiced Salmon Fillets with Grape Juice Glaze



Chunky Grape Salsa



Grape and Cheddar Salad with Grape Yogurt Dressing



Concord Grape Infused Beef Kebobs



Strawberry Mozzarella Chicken Pasta Salad with White Grape Juice Vinaigrette

WelchsRD

Welchs



Welchs

Welch's | Welchs.com

Welchsgrapes

Produce for Better Health Foundation • MoreMatters.org • PBHFoundation.org

WelchsRD


<b>Nutrition Fac</b>	ts
Serving size 1/2 medium (1	54g)
Amount per serving	
	60
Calones	
% Daily \	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium Omg	0%
Total Carbohydrate 15g	5%
Dietary Fiber 2g	7%
Total Sugars 11g	
Includes 0g Added Sugars	0%
Protein 1g	
Vitamin D 0mcg	0%
Calcium 40mg	4%
Iron 0mg	0%
Potassium 160mg	4%
Vitamin A 88mcg	10%
Vitamin C 60mg	70%
*The % Daily Value tells you how much a nutrient serving of food contributes to a daily diet. 2000 ca day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4	

# GRAPEFRUIT

#### How to Select

Choose grapefruits with thin, smooth, firm blemish free skins that are heavy for their size.

#### How to Store

Store grapefruits at room temperature for 1 week or under refrigeration for 2 to 3 weeks.

#### Links to More Information

Broiling Grapefruit Grapefruit Salad How the Grapefruit Got its Name Interesting Facts About Grapefruits

#### Social Media Posts

Can eating grapefruit help women achieve and maintain a healthy weight? Get the scoop: <u>http://ow.ly/S30KI</u>

#DidYouKnow Grapefruit got its name from how it grows on trees – clustered like bunches of grapes?

#DidYouKnow The Pummelo is the largest member of the citrus family n taste like a sweet grapefruit?

Put a lil' FIZZ in it! Make this quick, healthy, refreshing beverage. <u>http://ow.ly/z3BOE</u>

#### **Nutrient Content Claims**

fat free, saturated fat free, cholesterol free sodium free a good source of vitamin A high in vitamin C



#### Health Claims

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Grapefruit is fat free.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Grapefruit is sodium free.
- Diets low in sodium may reduce the risk of high blood pressure. Grapefruit is sodium free.
- Grapefruit, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Grapefruit contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Grapefruit is a good source of vitamin A and high in vitamin C.

#### Healthy Recipes with Grapefruit



Avocado Citrus Salad with Peanut Chile Crusted Scallops



Early Morning Round-up Parfait



Indian Fruit Salad



<u>Ambrosia</u>



#### The Wonderful Company | Wonderful.com

Paramountcitrus





Amount per serving	p (126g
	90
	aily Value
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol Omg	0%
Sodium 15mg	1%
Total Carbohydrate 23g	8%
Dietary Fiber 1g	4%
Total Sugars 20g	
Includes 0g Added Sugars	0%
Protein <sup>0</sup> g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron 0mg	0%
Potassium 240mg	6%
Vitamin C 1mg	2%
*The % Daily Value tells you how much a nu serving of food contributes to a daily diet. 20 day is used for general nutrition advice.	

# GRAPES

#### How to Select

Choose plump, firm grapes that are firmly attached to the stem.

#### How to Store

Store grapes in a plastic bag in the refrigerator for up to 1 week.

#### Links to More Information

Grapes in Sweet & Savory Dishes Selecting Grapes Storing & Using Grapes

#### Social Media Posts

Grapes are sweet and tasty any time – snack, or a side w/ breakfast, lunch or dinner!

Enjoy grapes in your favorite salad, on a fruit kabob, w/ cheese or as they are! <u>http://ow.ly/S3doA</u>

**#TipoftheDay:** Add one more! Add fresh fruit to your salads -- oranges, grapes, kiwi, and avocado are naturals!

The goodness of grapes! #DidYouKnow just one 4-oz. glass of 100% grape juice counts as 1 serving (1/2 cup) of fruit! Learn more about nutrition, selection, and storage -- <u>http://ow.ly/AfGQR</u>



#### Healthy Recipes with Grapes



Grape Tasting Treat

6

Grapes and Grains



Grapes with Ginger Creme

<u>Purple Party Parfait</u>



Shrimp Confetti Salad Sandwich with Grapes

#### Nutrient Content Claims

fat free saturated fat free cholesterol free very low in sodium



#### **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Grapes are fat free.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
  Grapes are very low in sodium.
- Diets low in sodium may reduce the risk of high blood pressure. Grapes are very low in sodium.
- Grapes, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Grapes contains no saturated fat or cholesterol.





#### **Nutrition Facts**

Serving size 1/10 medium (134g)

Amount per serving	50
Calories	50
% Daily \	/alue*
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol Omg	0%
Sodium 30mg	1%
Total Carbohydrate 12g	4%
Dietary Fiber 1g	4%
Total Sugars 11g	
Includes 0g Added Sugars	0%
Protein 1g	
	• * *
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron 0mg	0%
Potassium 210mg	4%
Vitamin C 27mg	30%
*The % Daily Value tells you how much a nutrient serving of food contributes to a daily diet. 2000 cal day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4	

# HONEYDEW MELON

#### How to Select

Choose well shaped honeydew melons that are nearly spherical. Should have a waxy, not fuzzy surface and feel heavy for size.

#### How to Store

Store honeydew melons at room temperature. Once cut, store in refrigerator for up to 2 weeks.

#### Links to More Information

<u>Melon Soup</u> <u>Selecting Honeydew Melon</u> <u>Storing & Using Honeydew Melon</u> <u>Using Honeydew Melon</u>

#### Social Media Posts

Make popsicles by pureeing honeydew with a little sugar and a splash of lime juice. Pour into molds, FREEZE, and ENJOY!

**#DidYouKnow** there are two types of honeydews -- one with green flesh and the other with orange flesh?





fat free saturated fat free cholesterol free very low in sodium high in vitamin C

#### **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Honeydew melon is fat free.

#### Sodium & Hypertension:

 Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
Honeydew melon is very low in sodium.

#### Healthy Recipes with Honeydew Melon



Cold Honeydew Lime Soup

Pineapple Passion Fruit Pizza

- Diets low in sodium may reduce the risk of high blood pressure. Honeydew melon is very low in sodium.
- Honeydew melon, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Honeydew melon contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Honeydew melon is high in vitamin C.



Avocado Honeydew Breakfast Smoothie

#### Robinson Fresh | Robinsonfresh.com

Vespeakfresh





<b>Nutrition Fac</b>	cts
Serving size 2 medium	(148g)
Amount per serving	
Calories	90
% Daily Valu	
Total Fat 1g	1%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium Omg	0%
Total Carbohydrate 20g	7%
Dietary Fiber 4g	14%
Total Sugars 13g	
Includes 0g Added Sugars	0%
Protein 1g	
	0%
Vitamin D 0mcg	4%
Calcium 40mg	
Iron Omg	0%
Potassium 450mg	10%
Vitamin C 144mg	160%
*The % Daily Value tells you how much a nutrie serving of food contributes to a daily diet. 2000 day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Protein	4

# KIWIFRUIT

How to Select

Choose slightly firm kiwifruits with a rough, fuzzy skin.

#### How to Store

Store un-ripened kiwifruits in plastic bags under refrigeration for up to 6 weeks.

#### Links to More Information

<u>Selecting & Storing Kiwi Fruit</u> <u>Types of Kiwi Fruit</u> <u>Using Kiwi Fruit</u> <u>Ways to Eat Kiwi Fruit</u>

#### Social Media Posts

Oh how we love kiwifruit...in cobbler, smoothies & parfaits! Even as a meat tenderizer! <u>http://ow.ly/S3ef3</u>

There's several ways to enjoy kiwifruit but try this Kiwifruit Mango Salsa! It'll knock your socks off: <u>http://ow.ly/yY30M</u>

#### Healthy Recipes with Kiwi Fruit



Early Morning Round-up Parfait

Fresh Start Fruit Cups

Kiwifruit Cobbler

Kiwifruit Mango Salsa



low in fat saturated fat free cholesterol free sodium free good source of fiber good source of potassium high in vitamin C

#### **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Kiwifruit is low in fat.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Kiwifruit is sodium free.
- Diets low in sodium may reduce the risk of high blood pressure. Kiwifruit is sodium free.
- Kiwifruit, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Kiwifruit contains no saturated fat or cholesterol.

## Fiber-Containing Grain Products, Fruits, and Vegetables and Cancer:

Low fat diets rich in fiber-containing grain products, fruits, and vegetables may reduce the risk of some of cancers, a disease associated with many factors. Kiwifruit is a good source of fiber.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Kiwifruit is a good source of fiber and are high in vitamin C.

## Potassium & High Blood Pressure/Stroke (Authoritative Statement):

Diets containing foods that are a good source of potassium and that are low in sodium, like kiwifruit, may reduce the risk of high blood pressure and stroke.







<b>Nutrition Fa</b>	acts
Serving size 1 media	
Amount per serving	
Calories	15
	aily Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 5g	2%
Dietary Fiber 2g	7%
Total Sugars 2g	
Includes 0g Added Sugars	0%
Protein 0g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron Omg	0%
Potassium 75mg	2%
Vitamin C 24mg	25%
*The % Daily Value tells you how much a n serving of food contributes to a daily diet. 2 day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Pro	tein 4

# LEMON

#### How to Select

Choose lemons with firm, thin, smooth skin, heavy for size.

#### How to Store

Refrigerate lemons for up to 2 weeks.

#### Links to More Information

Lime & Lemon Juice Drinks & Desserts Selecting & Storing Lemons & Limes Using Lemons & Limes Using Lemon & Lime Juice

Zesting Lemons & Limes

#### Social Media Posts

Pass the salt please. Or, should I ask to pass the lemon instead? <u>http://ow.ly/S35wU</u>

How long can lemons be stored? Our expert has the answer --> <u>http://ow.ly/9dn6304d0h7</u>

This Lemon Rosemary Zucchini offers an appetizing new flavor that you'll be sure to love: <u>http://ow.ly/</u><u>MyX8Q</u>

When life gives you lemons...make lemonade! Or enjoy this savory side dish, Asparagus w/Lemon Sauce: <u>http://ow.ly/AfKEH</u>



fat free saturated fat free cholesterol free sodium free low in calories high in vitamin C

#### **Health Claims**

#### Dietary Fat & Cancer:

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Lemons are fat free

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Lemons are sodium free.
- Healthy Recipes with Lemon



Salmon Burgers and Sweet Potato Oven Fries



<u>Grilled California Asparagus and Shrimp</u> <u>Quinoa Salad with Lemon Vinaigrette</u>



Avocado, Potato, and Grilled Chicken Salad



high in vitamin C.

Pesto Chicken Vegetable Kebabs

Diets low in sodium may reduce the risk of high blood

• Lemons, as part of a low sodium diet, may reduce the

Dietary Saturated Fat & Cholesterol & Risk of Coronary

disease. Lemons contains no saturated fat or cholesterol.

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or

Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Lemons are

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this

pressure. Lemons are sodium free.

risk of high blood pressure.

Fruits & Vegetables & Cancer:

Heart Disease:



Apple, Fennel & Chicken Salad with Couscous



Asparagus with Lemon Dijon Sauce

#### Sunkist Growers, Inc. | Sunkist.com



🍠 Sunkist



sunkistgrowers



#### The Wonderful Company | Wonderful.com

Paramountcitrus



# LIME

How to Select Choose limes with smooth, shiny skin, heavy for size.

#### How to Store

Refrigerate limes for up to 2 weeks.

#### Links to More Information

Lime & Lemon Juice Drinks & Desserts Selecting & Storing Lemons & Limes Using Lemons & Limes Using Lemon & Lime Juice Zesting Lemons & Limes

#### Social Media Posts

#DidYouKnow you can use lime juice in place of salt to season fish, chicken or pork? More info on this tasty fruit <u>http://ow.ly/j6BBF</u>

Nutrition Fac

1 medium (67a

20

0%

0%

0%

0%

3% 7%

0%

0%

0%

0%

2%

25%

% Daily Value\*

Serving size

Calories

Total Fat 0g

Protein 0g Vitamin D 0mcg

Calcium 0mg

Potassium 75mg

Vitamin C 21mg

Iron 0mg

Amount per serving

Saturated Fat 0g

Total Carbohydrate 7g

Includes 0g Added Sugars

\*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a

day is used for general nutrition advice. Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

Dietary Fiber 2g Total Sugars 0g

Trans Fat 0g

Cholesterol 0mg Sodium 0mg

Fix that Mexican food craving w/ these Chili & Lime Chicken Potato Tacos! A trip across the border for a fraction of the cost: <u>http://ow.ly/s9P5K</u>

Excite your palate with a Lime-marinated Onion Salad! Delicious on the side of many southwestern foods: <u>http://ow.ly/tZDFk</u>

Take corn to another level! Enjoy this Corn on the Cob w/Chili Lime Butter: <u>http://ow.ly/mRpGk</u>

You scream, I scream, we all scream for more BEANS! Try this simple Chipotle-Lime Three Bean Salad for your next picnic: <u>http://ow.ly/z3tTj</u>



#### Healthy Recipes with Lime



Avocado Melon Breakfast Smoothie

Watermelon Gazpacho

Cold Honeydew Lime Soup



Mango Cucumber Soup



Grilled Chicken Lettuce Wraps with Blueberry Bell Pepper Relish



Marinated Lime and Onion Salad

#### Nutrient Content Claims

fat free saturated fat free cholesterol free sodium free sugar free low in calories high in vitamin C

#### **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Limes are fat free.

#### Sodium & Hypertension:

 Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Limes are sodium free.

- Diets low in sodium may reduce the risk of high blood pressure. Limes are sodium free.
- Limes, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Limes contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Limes are high in vitamin C.



Paramountcitrus





# NECTARINE

How to Select

Choose firm nectarines with smooth skin.

#### How to Store

Store unripe nectarines in paper bag until ripe, then store at room temperature for use within 2-3 days.

#### Links to More Information

More Ways to Use Peaches & Nectarines Selecting Peaches & Nectarines Storing Peaches & Nectarines Using Peaches & Nectarines White Flesh Peaches & Nectarines

Nutrition Facts Serving size 1 medium (140g)		
Amount per serving Calories	60	
	aily Value*	
Total Fat 0.5g	1%	
Saturated Fat 0g	0%	
Trans Fat 0g		
Cholesterol 0mg	0%	
Sodium Omg	0%	
Total Carbohydrate 15g	5%	
Dietary Fiber 2g	7%	
Total Sugars 11g		
Includes 0g Added Sugars	0%	
Protein 1g		
Vitamin D 0mcg	0%	
Calcium 0mg	0%	
Iron 0mg	0%	
Potassium 250mg	6%	
Vitamin A 20mcg	2%	
Vitamin C 9mg	10%	
*The % Daily Value tells you how much a n serving of food contributes to a daily diet. 2 day is used for general nutrition advice.		
Calories per gram:	dala 4	

Fat 9 • Carbohydrate 4 • Protein 4

#### **Social Media Posts**

FUZZworthy --> **#DidYouKnow** the NECTARINE is actually a subspecies of peach that lacks the gene for fuzz!





low in fat saturated fat free cholesterol free sodium free good source of vitamin C

#### **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Nectarines are low in fat.

#### Sodium & Hypertension:

• Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Nectarines contain no sodium.

- Diets low in sodium may reduce the risk of high blood pressure. Nectarines contain no sodium.
- Nectarines, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Nectarines contain no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Nectarines are a good source of vitamin C.







# ORANGE

How to Select Choose oranges with firm, smooth skins, heavy for size.

#### How to Store

Store oranges at room temperature for 1-2 days. Refrigerate for 1-2 weeks.

#### Links to More Information

<u>Juicing Oranges</u> <u>More Ways to Use Oranges & Zest</u> <u>Selecting & Storing Oranges</u> <u>Using Orange Zest</u> <u>Using Oranges</u> <u>Ways to Cut Oranges</u>

#### Social Media Posts

Pears in Orange Sauce from @Fruit\_Veggies is the perfect dessert for any occasion: <u>http://ow.ly/UOCiw</u>

trition Facts

Serving size

Calories

Saturated Fat 0g

Total Carbohydrate 19g

Dietary Fiber 3g

Total Sugars 14g

Includes 0g Added Sugars

\*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.

Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

Trans Fat 0g Cholesterol 0mg

Total Fat 0g

Sodium Omg

Protein 1g Vitamin D 0mcg

Calcium 60mg

Potassium 250mg

Vitamin A 5mcg

Vitamin C 78mg

Iron 0mg

1 medium (154g)

80

0%

0%

0%

0%

7%

11%

0%

0%

4%

0%

6%

0%

90%

% Daily Value

100% orange juice is the new SUPERFOOD? Get the facts and drink up: <u>http://ow.ly/TZLFN</u>

**#TipoftheDay:** Add one more! Add fresh fruit to your salads -- oranges, grapes, kiwi, and avocado are naturals!

**#TipoftheDay:** Dress up a salad for your main meal. Add slices of grilled chicken or fish. Top w/Mandarin oranges. Viola! A cool crunchy salad!

What do you get for your money? \$1 can of soda = sugar, caffeine. \$1 glass of orange juice = Vitamin C, potassium.

Nothing like a good ol' glass of OJ! Pair it up with some juicy pears and try this Pears w/Orange Drizzle recipe: <u>http://ow.ly/zOxtd</u>

Beet juice? Really? Yep! Use a juicer and combine the juice of a small beet with 1 cup of 100% orange or apple juice. Enjoy!



#### Healthy Recipes with Oranges

Ambrosia



Grilled Lamb Salad



Rigatoni with Chicken and Pesto with Spinach Fresh Fruit Salad



Avocado Citrus Salad with Peanut Chile Crusted Scallops



Berry Plum Salad



Carrots with Garlic Orange Glaze



Mixed Greens with Fresh Oranges and White Beans



fat free saturated fat free cholesterol free sodium free good source of fiber high in vitamin C

#### **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Oranges are fat free.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
  Oranges are sodium free.
- Diets low in sodium may reduce the risk of high blood pressure. Oranges are sodium free.
- Oranges, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Oranges contains no saturated fat or cholesterol.

## Fiber-Containing Grain Products, Fruits, and Vegetables and Cancer:

Low fat diets rich in fiber-containing grain products, fruits, and vegetables may reduce the risk of some of cancers, a disease associated with many factors. Oranges are a good source of fiber.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Oranges are a good source of fiber and high in vitamin C.





<b>Nutrition Fac</b>	
Serving size 1 medium (1	47g)
Amount per serving	60
Calories	50
% Daily V	/alue*
Total Fat 0.5g	1%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol Omg	0%
Sodium Omg	0%
Total Carbohydrate 15g	5%
Dietary Fiber 2g	7%
Total Sugars 13g	
Includes 0g Added Sugars	0%
Protein 1g	
Vitamin D 0mcg	0%
Calcium 0mg	0%
Iron 0mg	0%
Potassium 230mg	4%
Vitamin A 15mcg	2%
Vitamin C 9mg	10%
*The % Daily Value tells you how much a nutrient i serving of food contributes to a daily diel. 2000 cal day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4	

# PEACH

#### How to Select

Choose peaches with firm, fuzzy skins that yield to gentle pressure when ripe. Avoid blemishes.

#### How to Store

Store unripe peaches in paper bag. When ripe, store at room temperature for use within 1-2 days.

#### Links to More Information

More Ways to Use Peaches & Nectarines Selecting Peaches & Nectarines Storing Peaches & Nectarines Using Peaches & Nectarines White Flesh Peaches & Nectarines Quick Peach Crisp & Cobbler Using Canned Peaches

#### Social Media Posts

Try these California Dreamin' Chicken Tacos with Peach Slaw for **#TacoTuesday**: <u>http://ow.ly/NyW9Y</u>

Feeling PEACHY? Kick it up a notch and try this Peachy Chipotle Salsa: <u>http://ow.ly/zjR1s</u>

**#WatchThis** and learn everything you need to know about PEACHES: <u>http://ow.ly/zjS10</u>

Need a quick cool off? Try this refreshing Grilled Peach Salad w/ Spinach & Red Onion Vinaigrette: <u>http://ow.ly/zk6OZ</u>

**#TipoftheDay:** A #healthy way to refresh & rehydrate is by drinking water flavored w/fresh citrus fruit, sliced peaches or berries.

**#DYK** apples, pears, peaches, plums, apricots, cherries, blackberries, raspberries, and strawberries are all members of the rose family?

Feeling PEACHY this morning? Enjoy these Perfectly Peachy Waffles **#Yummy**: <u>http://ow.ly/z1gp9</u>



low in fat saturated fat free cholesterol free sodium free good source of vitamin C

#### **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Peaches are low in fat.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Peaches are sodium free.
- Healthy Recipes with Peaches



Peach Chipotle Salsa over Talapia

Perfectly Peachy Waffles



<u>Honey-Dijon Chicken with</u> <u>Peach-Cilantro Salsa</u>

• Diets low in sodium may reduce the risk of high blood

pressure. Peaches are sodium free.

Peaches, as part of a low sodium diet, may

Dietary Saturated Fat & Cholesterol & Risk of

While many factors affect heart disease, diets low in

saturated fat and cholesterol may reduce the risk of this

disease. Peaches contains no saturated fat or cholesterol.

Low fat diets rich in fruits and vegetables (foods that are

low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer.

a disease associated with many factors. Peaches are a

reduce the risk of high blood pressure.

**Coronary Heart Disease:** 

Fruits & Vegetables & Cancer:

good source of vitamin C.

#### California Cling Peach Board | calclingpeach.com/



California-Cling-Peaches

🍠 CalClingPeach

#### Pacific Coast Producers | canned-fresh.com

f Pcoastpfan



#### Seneca Foods Corporation | Senecafoods.com

🍠 SenecaFoods



Ca	lories froi <b>% Dail</b>	m Fat	
	% Dail		
		y Valu	
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ydrate	<b>a</b> 26g	9	
6g		24	
•	Vitamin	n C 10	
•	Iron 09	%	
* Percent Daily Values are based on a 2,000 ca diet. Your daily values may be higher or lower depending on your calorie needs: Calories 2,000 2,56			
	ydrato 6g • • • • s are bas ees may b calorie n	ydrate 26g 6g Vitamir Iron 09 s are based on a 2,0 tes may be higher or	

# **PEAR**Sponsored By:



#### How to Select

A Ripe Pear is a Sweet Pear!

A little known fact about the pear is that it does not ripen well on the tree. Pears are harvested when mature, but not yet ripe. Instead, they slowly reach a sweet and succulent maturity as they ripen from the inside out at room temperature.

As tempting as pears might be right from the grocer's stand, a little bit of patience and know-how will ensure your pear reaches its peak flavor.

So, how do you know when the pear has ripened to sweet and juicy perfection?

While a Bartlett's skin color brightens as it ripens, most varieties of pears show little change in color.



The best way to judge ripeness for non-Bartlett varieties is to Check the Neck<sup>™</sup>: Apply pressure to the neck of the pear with your thumb. If it yields to pressure, it's ripe. Easy, isn't it?

Choose firm pears with intact stems to ripen at home. Some grocers display ripe or near ripe pears that will yield to pressure by the stem and will be ready in a day or two. If the belly of the pear is soft, it is likely overripe, but still good to use in smoothies and soups.



#### How to Store

If pears are ripe, use them right away or refrigerate for up to 5 days to slow further ripening. If they are firm, leave them at room temperature. Be sure to check them daily to catch them at perfect ripeness.

You can also arrange them in a fruit bowl and place them on the kitchen counter, dining room table, or even in the living room so you can enjoy their beauty as they ripen.

#### **To Prevent Browning**

Like many fruits, the flesh of cut or peeled pears will eventually brown. This natural oxidation process, however, does not affect the taste or quality. Browning can be slowed by "acidulating" the cut surfaces with a mild solution of 50% water and 50% lemon juice. Lightly poaching pears will also slow the browning and is a good way to prepare pears for use in salads. You can also use natural anti-browning products such as NatureSeal, which will slow down browning for over a week.

#### **Refrigerating Pears**

#### Remember, don't refrigerate an unripe pear!

Ripe pears can be eaten or placed in the refrigerator for up to 5 days. While refrigeration will delay any further ripening of the pear, it will not stop it altogether. Remember, pears need to ripen at room temperature, so don't refrigerate an unripe pear!

#### Speedy Ripening

Place underripe pears in a fruit bowl at room temperature near other ripening fruit like bananas, which naturally give off ethylene and will help speed up the ripening process. And if you find yourself with a few too many overripe pears, blend them into smoothies, soups, sauces and purees!

#### Wash Before Eating

#### All it takes is cold water

Thoroughly wash pears immediately prior to eating or preparation. Under cold, drinkable water, use your clean hands or a soft-bristled produce scrub brush to gently, but vigorously, scrub the entire exterior of the pear, taking extra care to cleanse the indentations near the stem (at the top) and calyx (at the bottom) of the pear. The total process will take 15–20 seconds.

Washing the entire exterior of the pear will help to eliminate dirt and/or commonly occurring bacteria that may be found on the fruit's surface. Wash fruit even if you plan on peeling it.





#### Links to More Information

USAPears.org World's largest website dedicated to pears. USA Pears variety video How to ripen pears video USA Pears Snacking - rule of two video Recipe ideas search Pear nutrition research Supermarket Dietitian toolkit and resources Snacking tips Resources for kids

#### Social Media Posts



Take a closer look inside your pear! What you find may surprise you. <u>http://bit.ly/72116FBTW</u>



The most delicious way to use your pear from firm to very ripe! <u>http://usapears.org/green-anjou/</u>



@USAPears is a great start to meeting your fruit intake. <u>usapears.org/pear-nutrition/</u>



Pears are part of a **<u>#healthy</u>** diet. Learn more at http://usapears.org/ pear-nutrition/ <u>#nutrition</u> <u>#health-</u> <u>tips</u> <u>#foodforlife</u>



**#DYK?** Anjou pears are in season! Plus they're juicy and delicious. <u>http://bit.ly/1qyVoTc</u>



These simple pear-ings can help balance your morning, plus they make yummy <u>#snacks!</u> <u>http://bit.</u> <u>ly/1QJQRCM</u>

December is National Pear Month.

and @Fruit Veggies is going to tell

you all about them --> http://ow.ly/



ULYMA ULYMA Happy <u>#N</u> Happy <u>#N</u> Bartletts a heart-hea

Happy <u>#NationalHeartMonth</u>! Bartletts and Anjou are certified heart-healthy <u>@American\_Heart</u>



PEAR-LICIOUS & NUTRITIOUS! Pears are packed w/ fiber, vitamins & minerals. Try these 100-cal gems in these recipes for National Pear Month: <u>http://ow.ly/UM3Qs</u>

Pears in Orange Sauce from @Fruit\_Veggies is the perfect dessert for any occasion: <u>http://ow.ly/UOCiw</u>

There are many ways to eat pears -- @Fruits\_Veggies shares their top ten --> <u>http://ow.ly/UMd1D</u>

A delectable dessert is just minutes away! These honey-sweet, Ginger Poached Pears will satisfy any sweet tooth: <u>http://ow.ly/TZNyo</u>

Lentils, pears & apples are all considered high in fiber--find out what other fruits/veggies carry that label: <u>http://ow.ly/9Eh12</u>

Pear season is 'ready-to-be-healthy' season – watch for fresh @USA Pears in store.



Fat free Saturated fat free Cholesterol free Sodium free

#### Nutrition

- Pears are an excellent source of fiber.
- Pears are high in vitamin C.
- Pears provide fiber and the antioxidant vitamin C in one sweet and juicy package... all for only 100 calories per medium-sized pear!
- One medium-sized juicy, delicious pear contributes 6 grams of fiber to the diet, 24% of the recommended daily value.
- One medium-sized juicy, delicious pear contributes 7 milligrams of the antioxidant vitamin C to the diet, 10% of the recommended daily value.
- One medium-sized juicy, delicious pear contributes 190 milligrams of potassium to the diet, 5% of the recommended daily value.
- Because they're an excellent source of fiber and a good source of the antioxidant vitamin C with zero fat, zero cholesterol, and zero sodium, pears are a healthy choice for any course of any meal of the day.

#### Additional Health Messaging

Low fat diets rich in fiber-containing vegetables, grain products, and fruits, such as pears, may reduce the risk of some types of cancer, a disease associated with many risk factors. Fresh pears are high in fiber, and a fat-free food. <u>USA Pears and cancer</u>

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) such as pears may reduce the risk of some types of cancer, a disease associated with many factors. Pears are an excellent source of fiber and a good source of the antioxidant vitamin C. <u>USA Pears</u> <u>and cancer</u> Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Pears contain no fat, no sodium or cholesterol. <u>USA Pears and cancer</u>

Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Pears contain no sodium! <u>USA Pears and hypertension</u>

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Sweet and juicy pears contain no fat, no saturated fat, and no cholesterol. <u>USA Pears and heart disease and stroke</u>

#### Statements for Use in the Media

#### Heart Health

Pears are a good source of vitamin C and are rich in fiber. Likewise, pears are sodium-free, fat free, and cholesterol-free — all things that are important for a healthy heart.<sup>1</sup>

#### Weight Loss

Pears are fat free, an excellent source of fiber, and contain vitamins and other beneficial nutrients. Several studies suggest that adding pears to the diet aids weight loss, especially when pears replace less healthful or less filling foods. Recent research supported by Pear Bureau Northwest suggests that the likelihood of being obese was 35 percent lower among fresh pear consumers than among non-consumers.<sup>2</sup>

- 1. From the American Heart Association Nutrition Committee. Circulation. 2006; 114:82-96. <u>Available online here</u>.
- 2. O'Neil, CE, Nicklas, TA, Fulgoni, VL III: Fresh pears consumption is associated with a better nutrient profile, better diet quality and lower risk of obesity in adults (19+ y): NHANES (2001-2010).

#### PEAR Health Benefit Web Pages

http://usapears.org/research-and-findings/



#### Some Typical Consumer Questions

#### Where are USA Pears grown?

USA Pears are grown where the right mix of volcanic soil, clean mountain water and warm spring and summer days, with cool nights, combine to produce some of the world's finest pears. Washington and Oregon produce 84% of the nation's fresh pear crop. Only pears grown in Washington and Oregon are sold under the USA Pears label.

### The pears I find in the grocery store are hard and green. Why?

Pears are a unique fruit in that they ripen best off the tree. As such pears are transported when they're fully mature, but not always ripe. This assures that pears you buy are in good condition to properly ripen them at home after you buy them.

#### Why aren't the pears on display at the grocer as ripe as the ones I sample at your special events?

The pears for sampling were ripened ahead of time so that we can show people how the fruit tastes when it has been properly ripened. Grocery stores often keep less ripe fruit on display so that they can keep them for several days without the fruit getting overripe. Your pears at home can taste the same if you simply allow them to ripen to perfection by leaving them at room temperature in your own kitchen!

#### How can I keep cut pears from browning?

Browning, or oxidation, is a natural process that occurs when cut pears are exposed to oxygen. This can be slowed by "acidulating" the cut surfaces with a mild solution of 50% water and 50% lemon juice, which can either be brushed on or dipped in. Although this process won't completely stop the browning of your pear, it will provide you with a little extra time to enjoy your delicious fruit. We suggest your cut pear be used as quickly as practical. Lightly poaching pears will also slow the browning and is a good way to prepare pears for use in salads. You can also use natural anti- browning products such as NatureSeal, which will slow down browning for over a week.

#### How do you freeze pears?

We don't recommend freezing fresh pears that have not been processed. The juice and fibers will separate in the thawing process, and the results are not at all desired. However, freezing a cooked or processed pear (such as pear sauce) to which sugar has been added will work. Pear pie fillings can also be pre-baked and frozen. Make sure the pears are in a tightly sealed container prior to freezing to help reduce freezer burn.

## What are other good uses for pears besides eating them fresh or in salads?

Pears are very versatile. In addition to eating whole and sliced, pears can be baked, poached, roasted, and grilled with delightful results. They can be used as ingredients in baked goods. Pears are also delicious in preserves, jams and chutney. Anything that can be done with an apple can be done with a pear!

#### What do I do with my pears when I get them home?

If pears are ripe, use them right away or refrigerate for up to 5 days to slow further ripening. If they are firm, leave them at room temperature. Be sure to check them daily to catch them at perfect ripeness.

You can also arrange them in a fruit bowl and place them on the kitchen counter, dining room table, or even in the living room so you can enjoy their beauty as they ripen. Did you ever notice that realtors love to use decorative bowls of pears in homes they're trying to sell? They're beautiful!

#### **Consumer Handouts**





#### USA Pears 2016-2017 Season Calendar at a Glance

Be sure to tag us @USAPears to get more likes, engagements, and reach for your pear-posts!

Монтн	Event	Date
July	Pears are in the orchard getting ready to be delicious!	Month long
August	Pears Are Back! Growers working hard in the orchard, picking the pearfect, tasty fruit.	Month long
September	Back to school — new pear school recipes available at <u>www.usapears.org</u>	Month long
	Pears are portable — protect them on the go with nifty <u>pear packers</u> !	Month long
	Whole food snacking with PEARings – ideas at <u>www.usapears.org</u>	Month long
	Fruits and Veggies More Matters Month	Month long
	Whole Grains Month – Whole grains and pears make a sustaining, fiber-full pair!	Month long
	National Peanut Day – Pears and healthy fats make a whole and filling snack!	September 13
	National Women's Health & Fitness Day	September 28
October	Start of the season for winter pears like Anjou, Comice, Concorde, and Bosc	Month long
	International Walk to School Day	October 5
	USA Pears attends FNCE	October 15-18
	Halloween pear decorating with Dia de los Muertos (Day of the Dead) stickers	October 31
	Sweet, juicy pears make an yummy substitute for Halloween candy	October 31
November	10 varieties of pears in season!	Month long
	Healthy, whole-food snacking during the holidays	Month long
	American Diabetes Month – Pears and Diabetes	Month long
	Thanksgiving - holiday pear <u>recipes</u> abound from stuffing to pie and everything in between!	November 24
December	National Pear Month with all 10 varieties available – Contact USA Pears for promotion ideas and support	Month long
	Christmas	December 25
	New Year's Eve pear bites and cocktails with fresh fruit	December 26-31



January	New Year's resolutions	Month long
	pears are part of a healthy diet	Month long
	<u>smoothies</u>	Month long
	Stay cozy with delicious pear soups!	Month long
February	Heart Month - Anjou pears are Heart Check certified by the American Heart Association	Month long
	National Wear Red Day from the American Cancer Society	February 5
	To get your Pizza Pie Day fix, try <u>this easy recipe</u> for fresh pears on pizza!	February 9
	Valentine's Day — Share the pear love!	February 14
March	<u>National Nutrition Month</u> - Did you know? Pears are an excellent source of fiber, a good source of vitamin C, with antioxidants and potassium making them a smart addition to any recipe or snack!	Month long
	Anjou, Red Anjou, and Bosc still going strong! Healthy pear <u>salads</u> , slaws and spring recipes	Month long
	National Peanut Butter Lover's Day – Pears' fiber and carbohydrates with peanut butter's <u>rich fats</u> make a great snack!	March 1
	National School Breakfast Week	March 7-11
	St. Patty's Day	March 17
	National Diabetes Alert Day – Pears can be part of a healthy diet for people with diabetes and at risk for diabetes	March 22
April	Spring salad, slaws, and sautés are better with Anjous! Add a little extra fiber and a sweet, satisfying crunch to your <u>spring recipes</u> !	Month long
	USA Pears will be at Produce for Better Health Foundation's Annual Conference	April 4-6
	Happy Grilled Cheese Sandwich Day! Sweeten your sandwich with a tasty Anjou!	April 12
	Every Kid Health Week	April 25-29
Мау	Anjou USA Pears are still available!	Month long
	Family Wellness Month	Month long
June	Anjou USA Pears are still available!	Month long

pbh.

#### **Tasty Recipes with Pears**



Easy Oven Packet Caribbean Tilapia with Pears and Carnival Roasted Potatoes



<u>Indian Fruit Salad</u>



<u>Pear Bistro Salad</u>



Savory Pear Salad



Sweet Potato-Pear Soup



Grilled Steak and Peppers Salad with Pears



Grilled Chicken and Pear Avocado Toast



Marinated Pear and Toasted Farro Salad





pbh



Nutrition Fa Serving 2 slices (3/4 size	
Amount per serving	50
Calories	50
% Da	ily Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 10mg	0%
Total Carbohydrate 13g	5%
Dietary Fiber 1g	4%
Total Sugars 10g	
Includes 0g Added Sugars	0%
Protein 1g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron 0mg	0%
Potassium 120mg	2%
Vitamin C 30mg	35%
*The % Daily Value tells you how much a nut serving of food contributes to a daily diet. 2,0 day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Prote	in 4

# PINEAPPLE

#### How to Select

Choose pineapples with dark green leaves, heavy for size. Avoid soft or dark spots and dry-looking leaves.

#### How to Store

Eat as soon as possible.Refrigerate cut pineapple for 2-3 days.

#### Links to More Information

<u>Cutting Pineapple</u> <u>Making a Pineapple Drink</u> <u>Peeling Pineapple</u> <u>Selecting Pineapple</u> <u>Storing & Using Pineapple</u>

#### Social Media Posts

Pineapple's many uses – in salsa and slaw, on fruit kabobs, in stir-fry, on pizza, grilled & by the chunk! <u>http://ow.ly/S3dwv</u>

#TipoftheDay Help kids make frozen fruit kabobs using pineapple chunks, bananas, grapes and kiwis.

Nom Nom! A burger with a lil' twist! The fam will enjoy these juicy Turkey Burgers w/ Spinach and Pineapple: <u>http://ow.ly/OIIdf</u>

Pumped for PINEAPPLES? Here's your GOLDEN ticket to a POWERFUL morning...a Power Gold Smoothie: <u>http://ow.ly/zOvUr</u>

A tasty treat the whole family will love! FRUIT and VEGGIE popsicles! Try this Pineapple-Mango Popsicle recipe + other yummy combos: <u>http://ow.ly/AfP5U</u>



fat free, saturated fat free, cholesterol free very low in sodium high in vitamin C

#### **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Pineapple is fat free.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Pineapple is very low in sodium.
- Diets low in sodium may reduce the risk of high blood pressure. Pineapple is very low in sodium.

• Pineapple, as part of a low sodium diet, may reduce the risk of high blood pressure.

#### Dietary Saturated Fat & Cholesterol & Risk of **Coronary Heart Disease:**

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Pineapple contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Pineapple is high in vitamin C.

#### Healthy Recipes with Pineapple



Grilled Pineapple Ginger Glazed Chicken



Pineapple Avocado Chicken Salad

Thai Pineapple & Chicken





Asian Chicken and Pineapple Noodle Bowl



Pineapple Passion Fruit Pizza

**Pineapple Salsa** 

Seared Cod with Pineapple Slaw

#### Dole Food Company, Inc. | Dole.com



DoleNutrition





DolePins

Del Monte Fresh Produce N.A., Inc. | FreshDelMonte.com













Nutrition Facts Serving size 2 medium (151g)		
Amount per serving Calories	70	
% Daily Value*		
Total Fat 0g	0%	
Saturated Fat 0g	0%	
Trans Fat 0g		
Cholesterol 0mg	0%	
Sodium 0mg	0%	
Total Carbohydrate 19g	7%	
Dietary Fiber 2g	7%	
Total Sugars 16g		
Includes 0g Added Sugars	0%	
Protein 1g		
Vitamin D 0mcg	0%	
Calcium 0mg	0%	
Iron Omg	0%	
Potassium 230mg	4%	
Vitamin A 20mcg	2%	
Vitamin C 6mg	6%	
*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.		
Calories per gram: Fat 9 • Carbohydrate 4 • Proteir	14	

# PLUM

#### How to Select

Choose plump plums with smooth skins. Avoid bruises and soft spots.

#### How to Store

Store unripe plums in paper bag until ripe. Refrigerate ripe plums.

#### Links to More Information

Dried Plums Selecting & Storing Plums Using Plums

#### Social Media Post

Off the tree, or in a chutney -- plums are sweet! Check out our TOP TEN ways to enjoy: <u>http://ow.ly/</u> <u>DPeR301Pk9P</u>





fat free saturated fat free cholesterol free sodium free

#### **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Plums are fat free.

#### Sodium & Hypertension:

• Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Plums are sodium free.

- Diets low in sodium may reduce the risk of high blood pressure. Plums are sodium free.
- Plums, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Plums contains no saturated fat or cholesterol.

#### Healthy Recipes with Plums



Berry Plum Salad



Plum Sauce

#### Robinson Fresh | Robinsonfresh.com

Vespeakfresh





#### trition Facts 8 Medium (147g) Serving size Amount per serving 50 Calories % Daily Value\* Total Fat 0g 0% 0% Saturated Fat 0g Trans Fat 0g Cholesterol Omg 0% Sodium Omg 0% Total Carbohydrate 11g 4% 7% Dietary Fiber 2g Total Sugars 8g Includes 0g Added Sugars 0% Protein 1g Vitamin D 0mcg 0% 2% Calcium 20mg Iron 0mg 0% Potassium 170mg 4% Vitamin C 96mg 110% \*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice. Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

# **STRAWBERRY**

#### How to Select

Choose shiny, firm strawberries with a bright red color. Caps should be fresh, green and intact. Avoid shriveled, mushy or leaky berries.

#### How to Store

Do not wash strawberries until ready to eat. Store in refrigerator for 1-3 days.

#### Links to More Information

Endless Uses for Strawberries More Uses for Strawberries Selecting & Storing Strawberries Using Strawberries

#### Social Media Posts

**#TipoftheDay:** Cut strawberries into heart shapes.

**#DidYouKnow** one acre of land grows about 50,000 pounds of strawberries?

Frozen strawberries are a tasty addition to just about any smoothie. Enjoy this Drop of Sunshine Smoothie recipe: <u>http://ow.ly/z0DzB</u>

**#MeatlessMonday** MANIA! Get a scoop of this scrumptious Strawberry Sundae Salad: <u>http://ow.ly/</u> <u>QiCn301P8cN</u>

Today is the perfect day to enjoy this Spinach, Strawberry & Pecan Salad: <u>http://ow.ly/NF3h301P9PS</u>

Chef Alex Caspero, RD shares unique ways to use strawberries! Check this out --> <u>http://ow.ly/4nawix</u>

What's juicy, sweet, red & ripe? That's right... STRAWBERRIES! For Nat'l Strawberry Month, @Fruit\_Veggies has 10 ways to enjoy! http://ow.ly/Mb1W5



fat free saturated fat free cholesterol free sodium free high in vitamin C

#### **Health Claims**

#### Dietary Fat & Cancer:

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Strawberries are fat free.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
  Strawberries are sodium free.
- Diets low in sodium may reduce the risk of high blood pressure. Strawberries are sodium free.

• Strawberries, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Strawberries contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Strawberries are high in vitamin C.





#### Healthy Recipes with Strawberries



Rigatoni with Chicken and Pesto with Spinach Fresh Fruit Salad



Strawberry Mango Feta Toast



<u>Strawberry, White Bean and</u> <u>Edamame Salad</u>



Salmon, Avocado and Strawberry Rice Bowl



<u>Strawberry Mozzarella Chicken</u> <u>Pasta Salad</u>



Banana Strawberry Nut Butter Crepes



Produce for Better Health Foundation • MoreMatters.org • PBHFoundation.org



<b>Nutrition Fa</b>	cts
Serving 1 cup (21 ch	
size	(140g)
Amount per serving	
	100
Calories '	100
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 26g	9%
Dietary Fiber 1g	4%
Total Sugars 16g	
Includes 0g Added Sugars	0%
Protein 1g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron 0mg	0%
Potassium 350mg	8%
Vitamin C 9mg	10%
*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet 2,000 calories a day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Protein	n 4

# SWEET CHERRY

#### How to Select

Select firm, red cherries with stems attached. Avoid soft, shriveled or blemished cherries.

How to Store Refrigerate cherries for up to 10 days.

#### Links to More Information

How the Bing Cherry Got Its Name Pitting Cherries Selecting Cherries Selecting & Storing Rainier Cherries Using Bing Cherries

#### Social Media Posts

Take your taste buds to the SWEETER side! Try this Brown Rice Pilaf w/Cherries & Pine Nuts: <u>http://ow.ly/</u> XDFMv

This salad is a true GEM! Try this Rubies and Greens Salad! It's LIGHT, TASTY, & TANGY! <u>http://ow.ly/UaT-V301PaN4</u>




fat free saturated fat free cholesterol free sodium free good source of vitamin C

## Health Claims

#### Dietary Fat & Cancer:

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Cherries are fat free.

#### Sodium & Hypertension:

• Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Cherries are sodium free.

- Diets low in sodium may reduce the risk of high blood pressure. Cherries are sodium free.
- Cherries, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Cherries contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Cherries are a good source of vitamin C.

## Healthy Recipes with Cherries



Pineapple Passion Fruit Pizza



Rubies and Greens









#### Nutrition Facts Serving size 2 cups (280g) Amount per serving 80 Calories % Daily Value Total Fat 0g 0% Saturated Fat 0g 0% Trans Fat 0g Cholesterol 0mg 0% Sodium Omg 0% 8% Total Carbohydrate 21g Dietary Fiber 1g 4% Total Sugars 20g Includes 0g Added Sugars 0% Protein 1g Vitamin D 0mcg 0% Calcium 20mg 2% 6% Iron 1mg Potassium 270mg 6% Vitamin A 75mcg 8% Vitamin C 15mg 15% The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice. Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

# WATERMELON

### How to Select

Choose symmetrical watermelons with dried stems and yellowish undersides, heavy for size.

### How to Store

Store whole watermelons at room temperature. Refrigerate cut watermelons in airtight container for use within 5 days.

## Links to More Information

Preparing Watermelon Edible Watermelon Art Elegant & Special Occasions with Watermelon Grilling Watermelon Making Watermelon Popsicles Preparing Watermelon Selecting Watermelon Watermelon Drinks

## Social Media Posts

#DidYouKnow Watermelon is 92% water? Learn more about this juicy fruit --> http://ow.ly/NyVyp

80 cal - 0 fat - Vit A, C, B6, B1 - Potassium - Fiber --> For Nat'l Watermelon Month stay hydrated with the "real" smart water: http://ow.ly/yh5xp

Tangy, sweet, and savory! For Nat'l Watermelon Month, try this Roasted Beet, Watermelon and Medjool Date Salad: http://ow.ly/O2Een

Get the party started with these Grilled Scallops & Watermelon Kebabs! http://ow.ly/O2IhH

Relaxation in full effect! A day at the pool wouldn't be complete without a glass of Watermelon Pina Colada: http://ow.ly/05vbX

Any way you slice it, WATERMELON is WONDERFUL! Don't believe us? Just watch --> http://ow.lv/peAv-301JYLM #NationalWatermelonMonth



fat free saturated fat free cholesterol free sodium free good source of vitamin C

## **Health Claims**

#### Dietary Fat & Cancer:

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Watermelon is fat free.

#### Sodium & Hypertension:

 Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
Watermelon is sodium free.

- Diets low in sodium may reduce the risk of high blood pressure. Watermelon is sodium free.
- Watermelon, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Watermelon contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Watermelon is a good source of vitamin C.

## Healthy Recipes with Watermelon



Hot and Sweet Watermelon



Watermelon Breakfast A Go-Go



Watermelon Pyramid



Watermelon Gazpacho

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## ARTICHOKE

## Sponsored By:



### How to Select

Search for artichokes that feel heavy and firm. Exterior should have a healthy green color, compact center leaves and an overall look of freshness (not dehydrated).

During the winter months (December to February), artichokes may have a blotchy colored or white-blistered exterior appearance due to colder temperatures and frost. Connoisseurs believe these "Frost-Kissed" artichokes are more tender and have a flavorful, nutty zest.

### How to Store

For refrigerated storage, slice a dime width off the artichoke stem, sprinkle with water and refrigerate in an airtight plastic bag. It's best to cook them within five to seven days after purchase.

Serving size 1 me	edium (128g
Amount per serving	
Calories	60
	% Daily Value
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 120mg	5%
Total Carbohydrate 13g	5%
Dietary Fiber 7g	25%
Total Sugars 1g	
Includes 0g Added Su	gars 0%
Protein 4g	
Vitamin D 0mcg	0%
Calcium 56mg	4%
Iron 2mg	10%
Potassium 474mg	10%
Vitamin C 15mg	15%
Vitamin K 19mcg	15%
Phosphorus 115mg	10%
Magnesium 77mg	20%
Zinc 1mg	10%
Copper 0.3mg	35%
Manganese 0.3mg	15%
Molybdenum 6mcg	15%
*The % Daily Value tells you how mu serving of food contributes to a daily day is used for general nutrition advi	diet. 2,000 calories a

1 1 1 1 1

Cooked artichokes should be cooled completely and covered before refrigerated, where they can keep for up to a week.

Artichokes are great cooked the night before planned use. Reheat in the oven or microwave before serving, stuffing, grilling or using as an ingredient in another dish or eat chilled with your favorite dipping sauce.





## Know Your Artichoke Sizes



## Links to More Information

Ocean Mist Farms preparation, cooking and serving

PBH Artichoke Nutrition, Selection, and Storage

Preparing Artichokes

Using Artichoke Hearts

Selecting Artichokes

More Ways to Use Artichokes

## Social Media Posts

Need some ideas on making artichokes? We've got some tasty recipes just for you! <u>AllAboutArtichokes.</u> <u>com/recipes</u>

Artichokes are packed with vitC, magnesium, & potassium -- did we mention they're delicious too?

Get a <sup>1</sup>/<sub>4</sub> of the recommended daily fiber you need from eating just one medium artichoke!

Artichokes contain 4 grams of protein, a sizeable amount for a vegetable.

Learn how to remove an artichoke's fuzzy center --> watch this --> <a href="http://ow.ly/XK7A302w5eT">http://ow.ly/XK7A302w5eT</a>

Find out when artichokes are in season: <u>http://ow.ly/</u> <u>bMk1302w64t</u> Here's something new just for you! Try the Fail Proof Artichoke: <u>http://ow.ly/dERc302w73X</u>

Easy baked artichokes. Yes! It IS that easy! <u>http://</u> ow.ly/Qvfz302w7gH

Check out this recipe 4 easy grilled artichokes and kick-up your next barbeque or picnic! http://ow.ly/7L3o302w7wG

Did u know an artichoke has a heart? Check out it's other parts and learn about the anatomy of an artichoke: <u>http://ow.ly/GZEz302wdvW</u>

Here's a list of our favorite artichoke recipes of the year <u>http://www.oceanmist.com/artichokes/the-best-ar-tichoke-recipes-of-2014/</u>

## **Nutrient Content Claims**

fat free, saturated fat free, cholesterol free low in sodium good source of vitamin C good source of molybdenum good source of manganese good source of vitamin K good source of vitamin K good source of zinc good source of phosphorous good source of potassium high in magnesium high in copper high in fiber

Artichokes are fat free, saturated fat free, cholesterol free, and low in sodium. They are a good source of vitamin C, vitamin K, iron, zinc, phosphorous, potassium, molybdenum, and manganese. They are also an excellent source of fiber, magnesium, and copper.



## **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Artichokes are fat free.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Artichokes are low in sodium.
- Diets low in sodium may reduce the risk of high blood pressure. Artichokes are low in sodium.
- Artichokes, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Diseas:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Artichokes contain no saturated fat or cholesterol.

## Fiber-Containing Grain Products, Fruits, and Vegetables and Cancer:

Low fat diets rich in fiber-containing grain products, fruits, and vegetables may reduce the risk of some of cancers, a disease associated with many factors. Artichokes are high in fiber.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Artichokes are a good source of vitamin C and high in fiber.

#### Additional Nutrition Messaging

Artichokes are a delicious way to get nutrients that research shows we typically lack in our diets including fiber, vitamin C, magnesium and potassium.

**Fiber**: One medium artichoke has 7 grams of dietary fiber – that's a quarter of the recommended daily amount – for only 60 calories.

**Protein**: Artichokes contain 4 grams of protein – a sizable amount for a vegetable.

**Probiotics**: Artichokes contain a unique form of fiber know as inulin. Inulin is one of the most available and the more promising prebiotics in the food supply; it's also the preferred form of prebiotic used in animal and human research studies.

**Antioxidants:** Artichokes are one of the highest vegetable sources of antioxidants.

Artichokes contain phytonutrients, or plant compounds that have antioxidant properties and promote human health. Some of the most powerful, polyphenol-type antioxidants are found in artichokes:

**QUERCETIN:** A flavonoid that works as an anti-carcinogen and antioxidant to protect against cancer and heart disease.

**RUTIN:** A flavonoid that promotes vascular health, helps prevent cell proliferation associated with cancer, and has anti-inflammatory and anti-allergenic properties.

**ANTHOCYANINS:** Color pigments in artichokes that are associated with a lower risk of certain cancers, urinary tract health, memory function and healthy aging.

**GALLIC ACID:** An antioxidant also found in red wine and black tea. It has been shown to inhibit cell proliferation in prostate cancer cells.

**LUTEOLIN AND CYNARIN:** Polyphenol antioxidants that may lower cholesterol levels. Artichokes contain cynarin, which may also help in regeneration of liver tissue.

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#### CAFFEIC ACID AND CHLOROGENIC ACID: Contain

anti-cancer, antimicrobial, anti-LDL (bad cholesterol) and antiviral properties.

**SILYMARIN:** This antioxidant may aid the liver in regenerative tissue growth.

#### A Summary of Artichoke Health Benefits

http://www.oceanmist.com/artichokes/wp-content/uploads/ sites/2/2016/06/AllAboutArtichokeNutrition.OMF2015-Final-RD.pdf

### Typical Consumer Questions about Artichokes

#### How do I COOK an artichoke?

See demonstrations here: <u>http://www.oceanmist.com/</u> <u>artichokes/prepare-cook-serve-artichokes/</u>

#### How do I eat an artichoke?

See a demonstration here: <u>http://www.oceanmist.com/</u> <u>artichokes/how-to-eat-an-artichoke-gifographic/</u>

#### Are canned artichokes as nutritious as fresh artichokes?

Artichokes packaged in jars are often marinated in oil, which means you will get added fat and calories. You'll also avoid added sodium and sugar if you opt for fresh, cooked artichokes or a precooked, frozen option.

#### What are the nutrition benefits of artichokes?

The artichoke is a nutrient-rich vegetable. One medium artichoke is a good source of vitamin C, iron, zinc, and potassium, and they are also an excellent source of fiber and magnesium. Artichokes also are a natural source of antioxidants. In fact, research shows cooked Ocean Mist artichokes are one of the highest antioxidant sources among all fresh vegetables.<sup>1</sup>

1. Halvorsen BL, et. al. Content of redox-active compounds (ie, antioxidants) in foods consumed in the United States. *Am J Clin Nutr.* 2006;84:95-135.

## How to Merchandise Artichokes in the Store

The artichoke is a natural complement to the produce department. Artichokes have a rich, deep-green color that complements other produce items and "stack" well for building large end-cap displays. If handled properly, Ocean Mist artichokes will look and taste fresh for up to two weeks. It is important to keep them cool and moist.

There is no "cookie-cutter" answer as to how a store should display fresh artichokes as it depends on your display resources, space allotment and sales velocity. To get started, here are some display tips to help merchandise artichokes:

- It is recommended for artichokes to be refrigerated while on display at 34° Fahrenheit or 1° Celsius.
- Do not re-trim stems. Ocean Mist Farms harvests each artichoke with two and a half-inch stems to retain the natural moisture. Re-trimming will cause artichokes to lose up to 30 percent of their moisture and weight, and stems will darken within seconds of re-trimming.
- Asparagus trays or bowls work well as merchandising tools to keep stems hydrated.
- Remove any damaged petals.
- Merchandise artichokes on their sides, stem-to-stem, for easier handling by you and your shoppers.
- Place next to lemons for both color blocking and encouraging an impulse purchase. Lemons are commonly used in preparing fresh artichokes.
- Create side displays in other departments such as in the meat and fish department . . . again to prompt an impulse purchase as a meal solution. Artichokes make the perfect side dish with any meat, poultry or fish dish.
- Side dipping ingredients such as mayo, balsamic vinegar and ready-to-eat sauces make a great cross promotion and encourage impulse purchase as meal solutions.
- Offer many sizes for increased sales. Shoppers use different sizes for different recipes.



## Healthy Recipes with Artichokes



Artichoke Ceviche in Belgian Endive



Grilled Artichokes



Roasted Herbed Artichokes



Chili-Chokes



Chimichurri Yogurt



Crab Smashed Potato Stuffed Artichokes





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Nutrition Fa	acts
	ars (93g)
	ais (889)
Amount per serving	20
Calories	20
% 🗅	aily Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium Omg	0%
Total Carbohydrate 4g	1%
Dietary Fiber 2g	7%
Total Sugars 2g	
Includes 0g Added Sugars	0%
Protein 2g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron 0mg	0%
Potassium 230mg	4%
Vitamin A 25mcg	2%
Vitamin C 9mg	10%
*The % Daily Value tells you how much a r serving of food contributes to a daily diet. 2 day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Pro	otein 4

## ASPARAGUS

#### How to Select

Choose odorless asparagus stalks with dry, tight tips. Avoid limp or wilted stalks.

#### How to Store

Refrigerate asparagus for up to four days by wrapping ends of stalks in wet paper towel and placing in plastic bag.

### Links to More Information

Asparagus - Broiled & More! Asparagus - Grilled & More! Selecting Asparagus Storing Asparagus

### **Social Media Posts**

**#TipoftheDay:** Add lots of lettuce, tomatoes, onions, sprouts, or other vegetables including zucchini, asparagus, & mushrooms. DELISH!

A zesty start to lead any meal in the right direction! Try our Asparagus Tapas next time you entertain: <u>http://ow.ly/uPHgK</u>

When life gives you lemons...make lemonade! Or enjoy this savory side dish, Asparagus w/Lemon Sauce: <u>http://ow.ly/AfKEH</u>





fat free saturated fat free cholesterol free sodium free low in calories good source of vitamin C

## **Health Claims**

#### Dietary Fat & Cancer:

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Asparagus is fat free.

#### Sodium & Hypertension:

 Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
Asparagus is sodium free.

- Diets low in sodium may reduce the risk of high blood pressure. Asparagus is sodium free.
- Asparagus, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Asparagus contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Asparagus is a good source of vitamin C.

## Healthy Recipes with Asparagus



<u>Grilled California Asparagus and Shrimp</u> <u>Quinoa Salad with Lemon Vinaigrette</u>



<u>Asparagus, Mandarin Orange,</u> <u>Chicken and Rice Salad</u>



Asparagus with Lemon Dijon Sauce



Chilled Asparagus with Mustard Herb Vinaigrette

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Amount per serving Calories	25
% D Total Fat 0g	aily Value* 0%
Saturated Fat 0g	0%
Trans Fat 0g	•
Cholesterol Omg	0%
Sodium 40mg	2%
Total Carbohydrate 6g	2%
Dietary Fiber 2g	7%
Total Sugars 4g	
Includes 0g Added Sugars	0%
Protein 1g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron 1mg	6%
Potassium 220mg	4%
Vitamin A 10mcg	2%
Vitamin C 114mg	130%

Fat 9 • Carbohydrate 4 • Protein 4

## **BELL PEPPER**

### How to Select

Choose firm, brightly colored peppers with tight skin that are heavy for their size. Avoid dull, shriveled or pitted peppers.

### How to Store

Refrigerate bell peppers in plastic bag for use within 5 days.

## Links to More Information

<u>Grilling Bell Peppers</u> <u>Preparing Bell Peppers</u> <u>Selecting & Storing Bell Peppers</u> <u>Using Bell Pepper</u>

## Social Media Posts

#DidYouKnow Paprika is a dried powdered form of bell pepper, and can be made from any color of bell pepper!

Available year-round, bell peppers kick any dish up a notch! This Grilled Halibut w/Roasted Pepper Salad is sure to please: <u>http://ow.ly/qfzml</u>





fat free saturated fat free cholesterol free low in sodium low in calories high in vitamin C

## **Health Claims**

#### Dietary Fat & Cancer:

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Bell peppers are fat free.

#### Sodium & Hypertension:

• Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Bell peppers are low in sodium.

- Diets low in sodium may reduce the risk of high blood pressure. Bell peppers are low in sodium.
- Bell peppers, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Bell peppers contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Bell peppers are high in vitamin C.





## **Healthy Recipes with Bell Peppers**



Broccoli Omlette



European Salad



Grilled Steak and Peppers Salad with Pears



Easy Oven Packet Caribbean Tilapia with Pears and Carnival Roasted Potatoes



Brown Rice with Sizzling Chicken and Vegetables



Mushroom Steak Fajitas



Asian Mango Chicken Wraps



Grilled California Asparagus and Shrimp Quinoa Salad with Lemon Vinaigrette



Avocado, Potato, and Grilled Chicken Salad



Garden Cannellini Bean Salad



Pesto Chicken Vegetable Kebabs



Grilled Chicken and Avocado Quinoa Pilaf



Fiesta Frescada Wraps and **Bellafina Boats** 



Yellow Potato and Red Pepper Shrimp Sauté



Garden Frittata



Bell Pepper and Vidalia<sup>®</sup> Onion Stratta



Rainbow Bell Pepper Boats with Garbanzo Beans and Kale



Grilled Pineapple Ginger Glazed Chicken



Asian Chicken and Pineapple Noodle Bowl



Grilled Chicken Lettuce Wraps with **Blueberry Bell Pepper Relish** 

## Red Sun Farms | redsunfarms.com



shopredsun









## BROCCOLI

How to Select Choose odorless broccoli heads with tight, bluish-green florets.

How to Store Refrigerate broccoli and use within 3-5 days.

### Links to More Information

Selecting Broccoli Using Broccoli

### Social Media Posts

**#TipoftheDay:** If the broccoli is great, pair it with baked chicken today, and use the leftover chicken for Wednesday's Cesar salad. Yummy!

Get this one-skillet meal to the table in 30! Herbed Chicken w/ Broccoli sounds delicious for dinner! Don't you agree? <u>ow.ly/TUjU3</u>

Amount per serving Calories	45
	% Daily Value
Total Fat 0.5g	19
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol Omg	0%
Sodium 80mg	3%
Total Carbohydrate 8g	3%
Dietary Fiber 3g	119
Total Sugars 2g	
Includes 0g Added Sug	gars 0%
Protein 4g	
Vitamin D 0mcg	0%
Calcium 60mg	4%
Iron 1mg	6%
Potassium 460mg	10%
Vitamin A 15mcg	2%
Vitamin C 132mg	150%

5 ways cabbage, broccoli, kale & cauliflower may fight inflammation. <u>http://ow.ly/S360b</u>

**#TipoftheDay:** Adding frozen veggies like chopped spinach or broccoli to your pasta dishes is a great way to add 1 more serving to your day!

More Broccoli & Cheese Please! The whole fam will enjoy this tasty side dish: <u>http://ow.ly/MEhU3</u>

It's a **#MeatlessMonday** showdown! You haven't had broccoli until you try this Chili-Garlic Roasted Broccoli: <u>http://ow.ly/BPcvX</u>

Your meal is now complete! Enjoy this Penne Shrimp & Broccoli recipe! **#Yummers**: <u>http://ow.ly/zOKhr</u>





low in fat saturated fat free cholesterol free low in sodium good source of fiber good source of potassium high in vitamin C

## **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Broccoli is low in fat.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
  Broccoli is low in sodium.
- Diets low in sodium may reduce the risk of high blood pressure. Broccoli is low in sodium.
- Broccoli, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Broccoli contains no saturated fat or cholesterol.

## Fiber-Containing Grain Products, Fruits, and Vegetables and Cancer:

Low fat diets rich in fiber-containing grain products, fruits, and vegetables may reduce the risk of some of cancers, a disease associated with many factors. Broccoli is a good source of fiber.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Broccoli is a good source of fiber and high in vitamin C.

## Potassium & High Blood Pressure/Stroke (Authoritative Statement):

Diets containing foods that are a good source of potassium and that are low in sodium, like broccoli, may reduce the risk of high blood pressure and stroke.





## Healthy Recipes with Broccoli



Herbed Chicken with Broccoli



Brown Rice with Sizzling Chicken and Vegetables







Broccoli Mandarin Salad



Broccoli Red Pepper Stir-Fry

Chinatown Vegetable Medley



Vegetable Frittata



Crazy, Curly Broccoli Bake



Broccoli Omlette

Seneca Foods Corporation | Senecafoods.com

🍯 SenecaFoods





Nutrition Fac	
Amount per serving Calories	30
% Daily	Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol Omg	0%
Sodium 60mg	3%
Total Carbohydrate 7g	3%
Dietary Fiber 2g	7%
Total Sugars 5g	
Includes 0g Added Sugars	0%
Protein 1g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron 0mg	0%
Potassium 250mg	6%
Vitamin A 275mcg	30%
Vitamin C 6mg	6%
*The % Daily Value tells you how much a nutrient serving of food contributes to a daily diet. 2000 ca day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4	

CARROT

#### How to Select

Choose well-shaped, smooth, firm, crisp carrots with deep color and fresh, green tops. Avoid soft, wilted or split carrots.

### How to Store

Refrigerate carrots in plastic bag with tops removed up to 2 weeks.

### Links to More Information

<u>Cutting Carrots</u> <u>Pickled Carrots</u> <u>Selecting & Storing Carrots</u> <u>Using Carrots</u>

## Social Media Posts

Pick a peck of pickled...carrots? **#Watch** this video to learn how to pickle carrots and jalapeno peppers: <u>http://ow.ly/OIIBX</u>

Craving CARROTS and don't feel like crunching? Put them in a blender, pour, sip, and enjoy!





fat free saturated fat free cholesterol free low in sodium low-calorie high in vitamin A

## **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Carrots are fat free.

#### Sodium & Hypertension:

• Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Carrots are low in sodium.

- Diets low in sodium may reduce the risk of high blood pressure. Carrots are low in sodium.
- Carrots, as part of a low sodium diet, may reduce the risk of high blood pressure.

#### Dietary Saturated Fat & Cholesterol & Risk of **Coronary Heart Disease:**

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Carrots contain no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Carrots are high in vitamin A.

## **Healthy Recipes with Carrots**



Mediterranean Potato Soup

Brown Rice with Sizzling Chicken and Vegetables



Grilled Lamb Salad



Asian Mango Chicken Wraps



Avocado Super Summer Wrap

Pineapple Avocado Chicken Salad



Rolly Veggie Cannelloni



Asian Chicken and Pineapple Noodle Bowl

## Grimmway Farms | Grimmway.com



GrimmwayFarms





grimmwayfarms





## CAULIFLOWER

#### How to Select

Choose cauliflower with compact, creamy white curdsand bright green, firmly attached leaves. Avoid brown spots or loose sections that are spread out.

#### How to Store

Refrigerate cauliflower in plastic bag up to 5 days.

### Links to More Information

How to Cut Cauliflower Rescuing Overcooked Cauliflower Selecting & Storing Cauliflower Spicy Cauliflower

### Social Media Posts

5 ways cabbage, broccoli, kale & cauliflower may fight inflammation. <u>http://ow.ly/S360b</u>

Unsure on how to freeze cauliflower? We got you covered: <u>http://ow.ly/g8hn304dOsa</u>

### **Nutrient Content Claims**

Nutrition Facts Serving 1/6 medium head (99g)

25

0% 0%

0%

1%

2%

7%

0%

0%

2%

0%

6%

70%

% Daily Value\*

size

Amount per serving

Saturated Fat 0g Trans Fat 0g Cholesterol 0mg

Total Carbohydrate 5g

Includes 0g Added Sugars

\*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.

Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

Dietary Fiber 2g

Total Sugars 2g

Calories

Total Fat 0g

Sodium 30mg

Protein 2g Vitamin D 0mcg

Iron 0mg

Calcium 20mg

Potassium 270mg

Vitamin C 60mg

fat free saturated fat free cholesterol free very low in sodium low in calories high in vitamin C





## **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Cauliflower is fat free.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Cauliflower is very low in sodium.
- Diets low in sodium may reduce the risk of high blood pressure. Cauliflower is very low in sodium.
- Cauliflower, as part of a low sodium diet, may reduce the risk of high blood pressure.

#### Dietary Saturated Fat & Cholesterol & Risk of **Coronary Heart Disease:**

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Cauliflower contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Cauliflower is high in vitamin C.

### Healthy Recipes with Cauliflower



Aromatic Roasted Cauliflower Soup

Chinatown Vegetable Medley



Sesame Garlic Vegetable Medley

Spicy Cauliflower Tapas





CANE .	

## CELERY

### How to Select

Choose straight, rigid celery stalks with fresh leaves. Avoid pithy, woody or limp stalks. Should smell fresh, not musty.

### How to Store

Refrigerate celery in a plastic bag for a week or more

## Links to More Information

Making Celery Salads Selecting Celery Storing Celery Using Celery

## Social Media Posts

Celery adds a wealth of nutrition to any dish! Don't miss the opportunity because you're out. Dried Celery is a great substitute in many soups, stuffings, and casseroles.

Nutrition Fac	
Amount per serving	15
Calories	<u>15</u>
% Daily	Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 115mg	5%
Total Carbohydrate 4g	1%
Dietary Fiber 2g	7%
Total Sugars 2g	
Includes 0g Added Sugars	0%
Protein 0g	
Vitamin D 0mcg	0%
Calcium 40mg	4%
Iron Omg	0%
Potassium 260mg	6%
Vitamin A 25mcg	2%
Vitamin C 9mg	10%
*The % Daily Value tells you how much a nutrier serving of food contributes to a daily diet. 2,000 day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4	1

A good source of Vitamin C, CELERY brings the perfect crunch and flavor to any meal or snack. Enjoy it in this Classic Veggie Soup: <u>http://ow.ly/AfWm9</u>





fat free saturated fat free cholesterol free low in sodium a low calorie food good source of vitamin C

## **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Celery is fat free.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Celery is low in sodium.
- **Healthy Recipes with Celery**



Celery with Apricot Blue Cheese Spread

Potato Skins with Buffalo Chicken



Shrimp Confetti Salad Sandwich with Grapes



Apple & Chicken Salad

- Diets low in sodium may reduce the risk of high blood pressure. Celery is low in sodium.
- Celery, as part of a low sodium diet, may reduce the risk of high blood pressure.

#### Dietary Saturated Fat & Cholesterol & Risk of **Coronary Heart Disease:**

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Celery contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Celery is a good source of vitamin C.

Braised Celery with Herbs

Rainbow Slaw Salad



Duda Farm Fresh Foods, Inc. | dudafresh.com Dandyfreshproduce dandyfreshproduce DandyFresh dandy fresh



<b>Nutrition Fac</b>	ts
Serving size 1/3 medium (	99g)
Amount per serving	
Calories	10
% Daily V	/alue* 0%
	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol Omg	0%
Sodium Omg	0%
Total Carbohydrate 2g	1%
Dietary Fiber 1g	4%
Total Sugars 1g	
Includes 0g Added Sugars	0%
Protein 1g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron Omg	0%
Potassium 140mg	2%
Vitamin A 10mcg	2%
Vitamin C 6mg	6%
*The % Daily Value tells you how much a nutrient i serving of food contributes to a daily diet. 2000 cal day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4	

## CUCUMBER

### How to Select

Choose firm, well shaped cucumbers with dark green color, heavy for size.

How to Store Refrigerate cucumbers in plastic bag up to 1 week.

## Links to More Information

Preparing Cucumber

Using Cucumber

Selecting Cucumber

Pickling Cucumber

### Social Media Posts

In just 5 min & 3 ingredients, you got yourself a tasty snack! These Cucumber Canoes are adorable: <u>http://ow.ly/MEwn0</u>

A quick, refreshing, no-stove delight! Try a different kind of soup -- Mango Cucumber Soup: <u>http://ow.ly/</u><u>AfDcP</u>

**#TipoftheDay:** Try adding diced tomatoes, cucumbers and onions to your turkey-dogs.





fat free saturated fat free sodium free cholesterol free a low calorie food

### **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Cucumbers are fat free.

#### Sodium & Hypertension:

 Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Cucumbers are sodium free.

## Healthy Recipes with Cucumber



Garden Cannellini Bean Salad

Watermelon Gazpacho

Mango Cucumber Soup

Avocado Garden Salad



West Coast Pita Treat

Corner Kick Pita Pocket

Garden Goodies Salad

- Diets low in sodium may reduce the risk of high blood pressure. Cucumbers are sodium free.
- Cucumbers, as part of a low sodium diet, may reduce the risk of high blood pressure.

#### Dietary Saturated Fat & Cholesterol & Risk of **Coronary Heart Disease:**

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Cucumbers contains no saturated fat or cholesterol.







## GREEN (SNAP) BEAN

#### How to Select

Choose fresh, well colored beans that snap easily when bent.

#### How to Store

Refrigerate green beans in plastic bag, use within 1 week.

### Links to More Information

Selecting and Storing Green Beans

Using Green Beans

Purchasing and Storing Green Beans

Southern Style Green Beans

### **Social Media Posts**

A side dish that steals the spotlight! Green Beans & Potatoes compliments any meal: <u>http://ow.ly/EuRM2</u>

Nutrition Fa	
Amount per serving	
Calories	20
	aily Value
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 5g	2%
Dietary Fiber 3g	11%
Total Sugars 2g	
Includes 0g Added Sugars	0%
Protein 1g	
Vitamin D 0mcg	0%
Calcium 40mg	4%
Iron 0mg	0%
Potassium 200mg	4%
Vitamin A 10mcg	2%
Vitamin C 6mg	6%
*The % Daily Value tells you how much a m serving of food contributes to a daily diet. 2 day is used for general nutrition advice.	
Calories per gram:	

Fat 9 • Carbohydrate 4 • Protein 4





fat free saturated fat free cholesterol free sodium free low in calories good source of fiber

## **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Green beans are fat free.

#### Sodium & Hypertension:

• Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Green beans are sodium free.

- Diets low in sodium may reduce the risk of high blood pressure. Green beans are sodium free.
- Green beans, as part of a low sodium diet, may reduce the risk of high blood pressure.

#### Dietary Saturated Fat & Cholesterol & Risk of **Coronary Heart Disease:**

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Green beans contains no saturated fat or cholesterol.

#### Fiber-Containing Grain Products, Fruits, and Vegetables and Cancer:

Low fat diets rich in fiber-containing grain products, fruits, and vegetables may reduce the risk of some of cancers, a disease associated with many factors. Green beans are a good source of fiber.

### Healthy Recipes with Green Beans



Green Beans and Roasted Potatoes with Romesco Vinaigrette



Technicolor Vegetable Saute

## Melissa's/World Variety Produce, Inc. | Melissas.com



**F** MelissasProduce **MelissasProduce**  melissasproduce





### Seneca Foods Corporation | Senecafoods.com

SenecaFoods





	4	
Nutrition Facts Serving 1/12 medium head (84g) size		
Amount per serving	-05	
Calories	25	
% Da	ily Value*	
Total Fat 0g	0%	
Saturated Fat 0g	0%	
Trans Fat 0g		
Cholesterol 0mg	0%	
Sodium 20mg	1%	
Total Carbohydrate 5g	2%	
Dietary Fiber 2g	7%	
Total Sugars 3g		
Includes 0g Added Sugars	0%	
Protein 1g		
Vitamin D 0mcg	0%	
Calcium 40mg	4%	
Iron Omg	4% 0%	
Potassium 190mg	4%	
Vitamin A Omcg	0%	
Vitamin C 42mg	45%	
*The % Daily Value tells you how much a nul serving of food contributes to a daily diet. 20 day is used for general nutrition advice.	trient in a	
Calories per gram: Fat 9 • Carbohydrate 4 • Prote	ein 4	

## **GREEN CABBAGE**

#### How to Select

Choose green cabbage heads with compact leaves that are heavy for their size.

How to Store Refrigerate green cabbage for up to 7 days.

## Links to More Information

<u>Cooking Cabbage</u> <u>Cutting & Using Cabbage</u> <u>Selecting & Storing Cabbage</u>

## Social Media Post

A side of surprise. This Cabbage Fruit Salad features the season's best and is ready in 10min: <u>http://ow.ly/s9Q0s</u>





fat free saturated fat free cholesterol free very low in sodium low in calories high in vitamin C

## **Health Claims**

#### Dietary Fat & Cancer:

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Cabbage is fat free.

#### Sodium & Hypertension:

 Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
Cabbage is very low in sodium.

- Diets low in sodium may reduce the risk of high blood pressure. Cabbage is very low in sodium.
- Cabbage, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Cabbage contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Cabbage is high in vitamin C.

## Healthy Recipes with Green Cabbage



Grilled Lamb Salad



Asian Mango Chicken Wraps



Pineapple Avocado Chicken Salad



Rainbow Slaw Salad



Southwestern Coleslaw

### Robinson Fresh | Robinsonfresh.com



Wespeakfresh



## **GREEN ONION**

### How to Select

Choose stalks with fresh, green tops and slightly white ends.

### How to Store

Refrigerate green onions in plastic bag for use as soon as possible.

## Links to More Information

Using Green Onions

Selecting and Storing Green Onions

### **Social Media Posts**

Check out nutrition information for green onions and tips on how to select, store & prepare them: <u>http://ow.ly/1oJx301PloR</u>



fat free saturated fat free cholesterol free very low in sodium low in calories

## **Health Claims**

#### Dietary Fat & Cancer:

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Green onions are fat free.

#### Sodium & Hypertension:

 Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
Green onions are very low in sodium.

## Healthy Recipes with Green Onion



Salmon Burgers and Sweet Potato Oven Fries



Potato Skins with Buffalo Chicken



Asian Mango Chicken Wraps



<u>Avocado, Potato, and Grilled</u> <u>Chicken Salad</u>



Garden Cannellini Bean Salad

- Diets low in sodium may reduce the risk of high blood pressure. Green onions are very low in sodium.
- Green onions, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Green onions contains no saturated fat or cholesterol.

Avocado Breakfast Bruschetta



Grilled Pineapple Ginger Glazed Chicken



Asian Chicken and Pineapple Noodle Bowl



Salmon, Avocado and Strawberry Rice Bowl

## Braga Fresh Family Farms | bragafresh.com

🔰 BragaFresh

JosiesOrganics





<b>Nutrition Fa</b>	cts
Serving 1/6 medium head	l (89g)
size	,
Amount per serving	
	10
Calories	
	y Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol Omg	0%
Sodium 10mg	0%
Total Carbohydrate 2g	1%
Dietary Fiber 1g	4%
Total Sugars 1g	
Includes 0g Added Sugars	0%
Protein 1g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron 0mg	0%
Potassium 125mg	2%
Vitamin A 15mcg	2%
Vitamin C 4mg	4%
*The % Daily Value tells you how much a nutrie serving of food contributes to a daily diet. 2000 day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Protein	4

## **ICEBERG LETTUCE**

#### How to Select

Choose plump heads, heady for their size, with tightly closed leaves. Pull back one leaf to check heart for any black blemishes. During winter, white blistered or bronze appearance does not affect quality.

### How to Store

Refrigerate in plastic bag up to one week. Keep dry to prevent mold growth.

## Links to More Information

Selecting and Storing Iceberg Lettuce

Using Iceberg Lettuce

## Social Media Posts

It all starts with this. Here's how to make the perfect salad: <u>http://ow.ly/i2mY301Plyl</u>

#TipoftheDay: Mix iceberg lettuce with spinach and other leafy greens.





fat free saturated fat free cholesterol free very low in sodium low in calories

## **Health Claims**

#### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Iceberg lettuce is fat free.

#### Sodium & Hypertension:

• Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Iceberg lettuce is very low in sodium.

- Diets low in sodium may reduce the risk of high blood pressure. Iceberg lettuce is very low in sodium.
- Iceberg lettuce, as part of a low sodium diet, may reduce the risk of high blood pressure.

#### Dietary Saturated Fat & Cholesterol & Risk of **Coronary Heart Disease:**

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Iceberg lettuce contains no saturated fat or cholesterol.

## Healthy Recipes with Iceberg Lettuce



Mushroom Steak Fajitas



Chicken and Vegetable Summer Rolls

### Ventura Foods | Maries.com

Mariesdressing







mariesdressing





<b>Nutrition Fa</b>	cts
Serving 1 1/2 cups shredded	
size	(85g)
Amount per serving	
Calories	15
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 35mg	2%
Total Carbohydrate 2g	1%
Dietary Fiber 1g	4%
Total Sugars 1g	
Includes 0g Added Sugars	0%
Protein 1g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron 1mg	6%
Potassium 170mg	4%
Vitamin A 325mcg	35%
Vitamin C 4mg	4%
*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Protein	4

## LEAF LETTUCE

#### How to Select

Choose lettuce with crisp leaves. Avoid brown edges.

### How to Store

After purchase, rinse well and dry with paper towels. Refrigerate leaf lettuce in plastic bag up to 1 week.

### Links to More Information

Lettuce & Sandwiches Preparing Salad Greens Storing Baby Lettuces Storing Leaf Lettuce Using Baby Lettuces

## Social Media Posts

**#DidYouKnow** the term Leaf Lettuce describes the varieties of lettuce with leaves that branch from a single stalk in a loose bunch rather than forming a tight head? The leaves are crisper and more full-flavored than those of the Head Lettuce varieties.





fat free saturated fat free cholesterol free very low in sodium low in calories high in vitamin A

## **Health Claims**

#### Dietary Fat & Cancer:

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Leaf lettuce is fat free.

#### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Leaf lettuce is very low in sodium.
- Diets low in sodium may reduce the risk of high blood pressure. Leaf lettuce is very low in sodium.
- Leaf lettuce, as part of a low sodium diet, may reduce the risk of high blood pressure.

## Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Leaf lettuce contains no saturated fat or cholesterol.

#### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber,

Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Leaf lettuce is high in vitamin A.





## Healthy Recipes with Leaf Lettuce



Clementine, Raisin & Goat Cheese Sandwich



European Salad



Tuna Apple Salad Sandwich







**Burger and Shoestring Fries** 



Shrimp Confetti Salad Sandwich with Grapes



Garden Cannellini Bean Salad



Vidalia<sup>®</sup> Onion and Tomato Salad with Grilled Tuna



Fiesta Frescada Wraps and **Bellafina Boats** 



Apple & Chicken Salad



Grilled Chicken Lettuce Wraps with **Blueberry Bell Pepper Relish** 






# MUSHROOM

### How to Select

Choose well shaped mushrooms with firm texture. Avoid spots and slime.

### How to Store

Refrigerate mushrooms in original container or paper bag up to 1 week.

### Links to More Information

Portabella Mushroom Burger Portabella Mushroom Pizza Selecting & Storing Mushrooms Using Mushrooms

### Social Media Posts

**#TipoftheDay:** Add lots of lettuce, tomatoes, onions, sprouts, or other vegetables including zucchini, asparagus, & mushrooms. DELISH!

Nutrition Facts about 5 servings per container Serving 5 medium (84g/3.0oz) size Amount per serving 20 Calories % Daily Value Total Fat 0g 0% Saturated Fat 0g 0% Trans Fat 0g 0% Cholesterol 0mg Sodium 15mg 1% 1% Total Carbohydrate 3g Dietary Fiber 1g 3% Total Sugars 0g Includes 0g Added Sugars 0% Protein 3g Vitamin D 0mcg 0% Calcium 3mg 0% Iron 0.5mg 2% Potassium 300mg 6%

\*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Label provided by Mushroom Council.

**#TipoftheDay:** Choose a Portobella mushroom burger instead of a ground beef burger.

**#MeatlessMonday** perfection: Carmelized Mushroom & Vidalia Onion Risotto is a full meal...deliciously and nutritiously! <u>http://ow.ly/p1Wm2</u>

Chef hat not required! Sweet Potato Pancakes w/ Balsamic Mushrooms make for a nutritious brunch to show off for your family. <u>http://ow.ly/p1Xea</u>

Need a quick dinner idea? Mushroom Sloppy Joes! Get everything you need to recreate this #healthy plate: <u>http://ow.ly/fhID1</u>

This Hass Avocado Stuffed Mushrooms recipe is an awesome appetizer to accompany any party! <u>http://ow.ly/yYlfz</u>

Bring something new to the table with this Salmon Steamed w/Tomato, Asparagus, and Mushrooms recipe. Is your mouth watering yet? <u>http://ow.ly/z1ibT</u>



### Nutrient Content Claims

fat free saturated fat free cholesterol free very low in sodium low in calories sugar free

### **Health Claims**

### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Mushrooms are fat free.

### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Mushrooms are very low in sodium.
- Diets low in sodium may reduce the risk of high blood pressure. Mushrooms are very low in sodium.
- Mushrooms, as part of a low sodium diet, may reduce the risk of high blood pressure.

### Dietary Saturated Fat & Cholesterol & Risk of **Coronary Heart Disease:**

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Mushrooms contains no saturated fat or cholesterol.

### Healthy Recipes with Mushrooms



Curried Chicken with Raisins and Mushrooms



Sweet Potato Pancakes with Balsamic Maple Mushrooms

Mushroom Beef Sloppy Joes



Broccoli Omlette



Mushroom Steak Fajitas







Caramelized Mushroom and Vidalia<sup>®</sup> Onion Risotto



Cool Quesa



Mushroom Bruschetta

### Giorgio Fresh Mushrooms | Giorgiofresh.com





freshandfoods





Nutrition Facts Serving size 1 medium (148g)		
Amount per serving Calories	45	
% Daily	Value*	
Total Fat 0g	0%	
Saturated Fat 0g	0%	
Trans Fat 0g		
Cholesterol 0mg	0%	
Sodium 5mg	0%	
Total Carbohydrate 12g	4%	
Dietary Fiber 3g	11%	
Total Sugars 9g		
Includes 0g Added Sugars	0%	
Protein 1g		
Vitamin D 0mcg	0%	
Calcium 40mg	4%	
Iron 1mg	6%	
Potassium 190mg	4%	
Vitamin C 12mg	15%	
*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.		
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4		

# ONION

### How to Select

Choose onions that are firm and dry with bright, smooth outer skins.

### How to Store

Store whole onions in a cool, dark, well ventilated place for use within 4 weeks. Refrigerate cut onions in a tightly sealed container for use within 2-3 days.

### Links to More Information

<u>Cutting Onions</u> <u>Cutting Onions Without Crying</u> <u>Selecting & Storing Onions</u> <u>Using Onions</u>

### Social Media Posts

It's beginning to TASTE a lot like Christmas! Try this Roasted Turkey Tenderloin w/Onion-Apple Compote from @Fruit\_Veggies: <u>http://ow.ly/UODOd</u> **#TipoftheDay:** Try adding diced tomatoes, cucumbers and onions to your turkey-dogs.

Excite your palate with a Lime-Marinated Onion Salad! Delicious on the side of many southwestern foods: <u>http://ow.ly/tZDFk</u>

Need a quick cool off? Try this refreshing Grilled Peach Salad w/ Spinach & Red Onion Vinaigrette: <u>http://ow.ly/zk6OZ</u>

Don't cry, dry your eyes! Slice, dice, or chop your onions without shedding a tear! #Watch this --> <u>http://ow.ly/UeVSQ</u>

### **Nutrient Content Claims**

fat free saturated fat free cholesterol free very low in sodium good source of fiber high in vitamin C



### **Health Claims**

### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Onions are fat free.

### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
   Onions are very low in sodium.
- Diets low in sodium may reduce the risk of high blood pressure. Onions are very low in sodium.
- Onions, as part of a low sodium diet, may reduce the risk of high blood pressure.

# Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Onions contains no saturated fat or cholesterol.

# Fiber-Containing Grain Products, Fruits, and Vegetables and Cancer:

Low fat diets rich in fiber-containing grain products, fruits, and vegetables may reduce the risk of some of cancers, a disease associated with many factors. Onions are a good source of fiber.

### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Onions are a good source of fiber and an excellent source of vitamin C.





### Healthy Recipes with Onion



Mediterranean Potato Soup



<u>Herbed Garden Pizza</u>



Brown Rice with Sizzling Chicken and Vegetables



Burger and Shoestring Fries



Grilled Lamb Salad



Mushroom Steak Fajitas

Shrimp Confetti Salad Sandwich with Grapes



### Mushroom Beef Sloppy Joes

Watermelon Gazpacho





<u>Apple Corn Chili</u>



Yellow Potato and Red Pepper Shrimp Sauté



<u>Garden Frittata</u>

26 26 26 26 26 26



Bell Pepper and Vidalia® Onion Stratta





Roasted Brussels Sprouts, Potatoes, and Chicken



Potato, Black Bean, and Kale Skillet





Strawberry, White Bean and Edamame Salad

Potato Spinach Lasagna



Grilled Shrimp with Cantaloupe Avocado Salsa



Grilled Pineapple Ginger Glazed Chicken



Shredded Brussels Sprouts and Chunck Apple Sauté with Pork Tenderloin



Pan Seared Salmon & Apple Salad



Rolly Veggie Cannelloni



Grilled Chicken Lettuce Wraps with Blueberry Bell Pepper Relish



Caramelized Mushroom and Vidalia<sup>®</sup> Onion Risotto

\*\*\*\*



### Nutrition Facts

Serving size 1 potato (148g/5.3oz)

Amount Per Serving Calories	110
	% Daily Value*
Total Fat Og	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol Omg	0%
Sodium Omg	0%
Total Carbohydrate	26g <b>9%</b>
Dietary Fiber 2g	7%
Total Sugars 1g	
Includes 0g Addeo	d Sugars <b>0%</b>
Protein 3g	
Vitamin D 0g	0%
Calcium 20mg	2%
Iron 1.08mg	6%
Potassium 620mg	13%
Vitamin C 27mg	30%
Vitamin B <sub>6</sub> 0.2 mg	12%
The % Daily Values (DV) tells you h in a serving of food contributes to a calories a day is used for general n	daily diet. 2,000
Calories per gram: Fat 9 · Carbohydrate 4 ·	Protein 4

Label provided by Potatoes USA

# POTATOES



### How to Select

Look for clean, smooth, firm-textured potatoes with no cuts, bruises or discoloration.

### How to Store

Store potatoes in a cool, well-ventilated place.

Colder temperatures lower than 50 degrees, such as in the refrigerator, cause a potato's starch to convert to sugar, resulting in a sweet taste and discoloration when cooked. If you do refrigerate, letting the potato warm gradually to room temperature before cooking can reduce the discoloration.

Avoid areas that reach high temperatures (beneath the sink or beside large appliances) or receive too much sunlight (on the countertop).

Perforated plastic bags and paper bags offer the best environment for extending shelf-life.

Keep potatoes out of the light.

Don't wash potatoes before storing. Dampness promotes early spoilage.

### Links to More Information

PotatoGoodness.com/NutritionProfessionals



### Social Media Posts

Facebook





Rise and shine, its tater time! Brighten up your breakfast with this recipe for <u>Kaleidoscope Potato Pancakes.</u>

Going gluten-free? Potatoes make a great sub for gluten products in everything from pizza and pasta to soups and stews! Try this recipe for <u>Potato</u> <u>Bruschetta</u>



Less than 3% of Americans are currently meeting their recommendations for potassium. But have no fear, potatoes are here! One medium-sized potato has more potassium than a banana, and good thing, because potassium is an important electrolyte that aids in muscle, cardiovascular and nervous system function.



Pesto and potatoes make the perfect pair in this recipe for Pesto Parmesan Stackers! For a twist, layer potatoes with your favorite flavors—from garlic and olive oil to mozzarella and marinara. <u>Potatogoodness.com/recipes/</u> <u>pesto-parmesan-potato-stackers/</u>



Hosting a party? A mashed potato bar (or try a Hash Bash!) is a convenient way to get potatoes on every plate. Simply set up a table complete with mashed potatoes and all the healthy fixings (salsa, chives, Greek yogurt, even veggies to mix in) and watch your guests enjoy! <u>Watch the video here.</u>



**Potato Fun Fact:** During the Alaskan Klondike gold rush, (1897-1898) potatoes were practically worth their weight in gold. Potatoes were valued for their vitamin C. And gold, at that time, was more plentiful than nutritious foods!



Pass the Potato Salad this Summer! New research shows potatoes offer additional nutritional benefit when cooked and cooled. <u>Potatogoodness.com/food-developers/resources/</u>



These <u>Baked Pizza Potatoes</u> pack quite the nutrition punch! A kid-friendly fav for the whole family, they make a great entrée or mid-day snack. Yum!

### Twitter

Potato salad, please! We're loving this Spring Potato Salad recipe featuring red potatoes. <u>Potatogoodness.com/recipes/spring-potato-salad/</u>

**#Didyouknow** In October 1995, the potato became the first vegetable to be grown in space?

Freshen up your fries with this recipe for Roasted Potato Fries with Avocado Aioli: <u>Potatogoodness.com/</u> <u>recipes/roasted-potato-fries-with-avocado-aioli/</u>

Potatoes are an excellent source of vitamin C (30% of the DV) which is more than one medium tomato or sweet potato. **#themoreyouknow** 

Go green with this delicious and nutritious Mashed Potatoes Verde: <u>Potatogoodness.com/recipes/pota-</u> toes-verde/

To maintain the most nutrition in a cooked potato, steaming and microwaving potatoes are best. **#ProTip** 

Crazy for color? This Purple Potato Salad is a vibrant dish you can make in 30 minutes or less! <u>Potatogoodness.com/recipes/purple-potato-sal-ad-with-beets-and-arugula/</u>

The energy to get you from A to B, and nutritional benefits from A to Z - potatoes have it all! <u>Potatogoodness.com/nutrition-professionals/resources/</u>

From weekend warrior or elite athlete, there's a potato option (and potato type) for every performance lifestyle!



How tasty is this Green Beans & Potatoes side dish for #MeatlessMonday? VERY! <u>ow.ly/EuRM2</u>

Don't hate the spud...white potatoes are a healthy choice! <u>http://ow.ly/S35jh</u>

**#TipoftheDay:** Add one more! Cut up veggies like carrots, zucchini and potatoes. Add them to your favorite meatloaf or soup recipes!

It's crockpot season! Come home to this comforting Quick & Healthy Slow Cooker Chicken & Potatoes: <u>http://ow.ly/ExhrV</u>

Who says savory soup has to take a long time? This Mediterranean Potato Soup is quick n overflowing w/ veggies: <u>http://ow.ly/p211E</u>

SCORE! For less than \$20, you can feed your family of four this delicious n nutritious Yellow Potato n Red Pepper Shrimp Sauté: <u>http://ow.ly/r60oT</u>

Pizza with a twist! Try these Quick and Healthy Baked Pizza Potatoes! So yummy! <u>http://ow.ly/SirCV</u>

Fix that Mexican food craving w/ these Chili & Lime Chicken Potato Tacos! A trip across the border for a fraction of the cost: <u>http://ow.ly/s9P5K</u>

Add some spice to your life with this Potato, Black Bean, and Kale Skillet: <u>http://ow.ly/I30y4</u>

### **Nutrient Content Claims**

excellent source of vitamin C good source of potassium sodium and cholesterol free good source of vitamin B6 fat-free

### **Health Claims**

• Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Potatoes are sodium free.

- Diets low in sodium may reduce the risk of high blood pressure. Potatoes are sodium free.
- While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Potatoes contain no saturated fat or cholesterol.
- Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, vitamin A, or vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors.
   Potatoes are an excellent source of vitamin C.

Potatoes are free ot fat, saturated fat, sodium, and cholesterol. They are also a god source of potassium and high in vitamin C.

### **Typical Consumer Questions**

### Are potatoes good for you?

Yes, potatoes are naturally fat free, cholesterol free, and sodium free. In addition, potatoes are an excellent source of vitamin C, and those eaten with the skin are a good source of potassium. Foods that are good sources of potassium and low in sodium, such as potatoes, may reduce the risk of high blood pressure and stroke.

### Are all varieties of potatoes equally nutritious?

All varieties of potatoes are nutritious and, while both the type and amounts of nutrients may vary slightly depending on the variety, the differences are minimal. So minimal in fact, the FDA nutrition label for potatoes represents a composite of varietals ("market-basket approach") based on typical US consumption patterns (i.e., 70% Russet, 18% white and 12% reds). Based on the FDA label the following claims can be made for the potato:

- $\bullet$  An excellent source (> 20% of the DV) of vitamin C
- A good source (>10% of the DV) of potassium
- A good source (> 10% of the DV) of vitamin B6
- Low in sodium (< 140 mg/serving) and cholesterol
- Fat free (< .5 g fat/serving)
- Contains 2 grams of fiber with the skin



### Are carbs bad for you?

No, carbohydrate-rich foods provide significant amounts of essential vitamins, minerals and water. Vitamin C and the mineral potassium are particularly plentiful in fruits and vegetables. Moreover, fiber, which is found in abundance in fruits, vegetables and whole grains is associated with a number of potential health benefits including that it may:

- Creating a feeling of fullness which may aid in weight loss
- Lowering blood cholesterol levels and may decrease the risk of heart disease
- Maintaining bowel regularity
- Binding harmful micro-organisms in the colon.

### Are potatoes fattening?

No. A 5.3-ounce potato has only 110 calories and no fat. Experts agree weight gain occurs when an individual consumes more calories than he or she expends.

### Are French fries and potato chips healthy?

Staple foods such as fruits, vegetables and whole grains should be eaten every day, while fried foods and high fat snacks should be viewed as occasional treats. One food, even one meal, does not make or break a healthful diet. Understanding the impact that fried foods, like fries and chips, or high-fat foods like ice cream and cookies, have on your overall eating pattern makes it possible for you to "make room" for them as occasional indulgences.

### What about potatoes and the Glycemic Index?

The Glycemic Index (GI) is a rating system that assigns a numerical value to carbohydrate-rich foods, based on their impact on blood glucose. Russet potatoes have been historically classified as high on the GI; however, research suggests that the GI of potatoes is highly variable depending upon the type of potato (e.g., red, russet, yellow), how the potato is prepared (e.g., baked, boiled, cooled) and what else is consumed with the potato. The 2015-2020 Dietary Guidelines for Americans recommends focusing on healthy food patterns (characterized by liberal consumption of fruits and vegetables) and makes no mention of the GI as a tool for dietary



planning. Americans are encouraged to consume a balanced diet that contains a wide variety of foods while staying within their energy requirements.

### Should people with diabetes avoid foods like potatoes? What about people trying to lose weight?

After an extensive review of the scientific research regarding carbohydrate intake and diabetes, the American Diabetes Association concluded that, for people with diabetes, the total amount of carbohydrate in meals and snacks, rather than the type, is more important in determining the blood sugar (Glycemic) response. Similarly, the Department of Health and Human Services (HHS) and the Department of Agriculture (USDA) concluded that, when it comes to weight management, it is calories that count, not the proportion of carbohydrates, proteins, and fats.

### If you peel potatoes, do they lose all nutrients?

No. The notion that all of the nutrients are found in the skin is a myth. While the skin does contain approximately half of the total dietary fiber, the majority (> 50%) of the nutrients are found within the potato itself.

# Are sweet potatoes more nutritious than white potatoes?

There's a common misperception is that sweet potatoes are far healthier than potatoes. But gram for gram, both vegetables should consider themselves in good company. They are very similar in nutrient content for fiber, protein, vitamin B6 and iron; however, potatoes contain far more vitamin C and potassium, where as sweet potatoes tout their beta carotene and calcium.



### **Consumer Handouts**



Spring Potato Salad Recipe Card



Potato Lasagna Recipe Card



Grilled Pesto Potato Salad Recipe Card

### Statements for Use in the Media

Potatoes are a nutrition powerhouse. One medium potato (5.3 oz) with the skin contains 30 percent of the daily value for vitamin C; as much or more potassium (620mg) than bananas, spinach, or broccoli; 12 percent of the daily value of vitamin B6; and various other important vitamins and minerals.

### Healthy Recipes with Potatoes



Mediterranean Potato Soup



Easy Oven Packet Caribbean Tilapia with Pears and Carnival Roasted Potatoes



Potato Skins with Buffalo Chicken

Avo Chie

Avocado, Potato, and Grilled Chicken Salad



Scalloped Potatoes and Chicken with Fennel



<u>Yellow Potato and Red Pepper</u> <u>Shrimp Sauté</u>



<u>Garden Frittata</u>



Roasted Brussels Sprouts, Potatoes, and Chicken



Potato, Black Bean, and Kale Skillet

Potato Spinach Lasagna



Crab Smashed Potato Stuffed Artichokes





y Spudnutrition









**O** 



Nutrition Fa Serving size 7 radishe	
Amount per serving Calories	10
Total Fat 0g	ly Value* 0%
Saturated Fat 0g <i>Trans</i> Fat 0g	0%
Cholesterol 0mg Sodium 55mg	0% 2%
Total Carbohydrate 3g Dietary Fiber 1g	1% 4%
Total Sugars 2g Includes 0g Added Sugars	0%
Protein 0g	
Vitamin D 0mcg Calcium 20mg	0% 2%
Iron 0mg Potassium 190mg	0% 4%
Vitamin C 18mg	20%
*The % Daily Value tells you how much a nutri serving of food contributes to a daily diet. 2000 day is used for general nutrition advice.	
Calories per gram: Fat 9 • Carbohydrate 4 • Proteir	n 4

# RADISHES

### How to Select

Choose smooth, brightly colored, medium sized radishes. Attached tops should be green and fresh looking.

### How to Store

Refrigerate radishes in plastic bag for use within 1 week. Remove tops before storing.

### Links to More Information

Selecting & Storing Radishes

Using Radishes

### Social Media Posts

**#DidYouKnow** The Daikon Radish is a long, slender veggie widely used in Asia?

New twist on coleslaw – use Daikon Radish instead of cabbage.

Add cubed daikon radishes to your next pot roast or pan of roasted veggies – Yummy!

**#DidYouKnow** Radishes come in red, pink, white, and black colors, and some varieties can grow to 100 pounds or more?

### **Nutrient Content Claims**

fat free saturated fat free cholesterol free low in sodium low in calories excellent source of vitamin C



### **Health Claims**

### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Radishes are fat free.

### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
   Radishes are low in sodium.
- Diets low in sodium may reduce the risk of high blood pressure. Radishes are low in sodium.
- Radishes, as part of a low sodium diet, may reduce the risk of high blood pressure.

# Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Radishes contains no saturated fat or cholesterol.

### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Radishes are high in vitamin C.



### Braga Fresh Family Farms | bragafresh.com



BragaFresh JosiesOrganics

### Duda Farm Fresh Foods, Inc. | dudafresh.com

Dandyfreshproduce

🔰 dandy\_fresh









Serving size 1/2 me	annun (agð
Amount per serving	20
Calories	20
	% Daily Value
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol Omg	0%
Sodium Omg	0%
Total Carbohydrate 4g	1%
Dietary Fiber 2g	7%
Total Sugars 2g	
Includes 0g Added Sug	ars 0%
Protein 1g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron Omg	0%
Potassium 260mg	6%
Vitamin A 15mcg	2%
Vitamin C 18mg	20%
*The % Daily Value tells you how muc serving of food contributes to a daily of day is used for general nutrition advic	h a nutrient in a diet. 2000 calories a

Fat 9 • Carbohydrate 4 • Protein 4

# SUMMER SQUASH

### How to Select

For all squash varieties, choose glossy, small-to medium-sized squash, heavy for size.

### How to Store

Refrigerate summer squash for use within 3-4 days.

### Links to More Information

Selecting Summer Squash

<u>Types of Squash</u> (difference between summer & winter squash)

<u>Cutting Zucchini</u>

Ideas for Using Squash

### **Social Media Posts**

**#DidYouKnow** squash is technically a fruit as the seeds are inside the fruit; however it is considered a vegetable in cooking?

Squash is in season and there are many ways to enjoy! Try Squash w/Tomato-Garlic Sauce 4 a quick, easy dinner: <u>http://ow.ly/p1W3x</u>

Baked breads are a great way to get kids to fall in love with a new veggie! Serve this delicious Squash Nut Bread as a healthy dessert: <u>http://ow.ly/sZSag</u>



### Nutrient Content Claims

fat free saturated fat free cholesterol free sodium free low in calories high in vitamin C

### **Health Claims**

### Dietary Fat & Cancer:

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Summer squash is fat free.

### Sodium & Hypertension:

• Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Summer squash is sodium free.

- Diets low in sodium may reduce the risk of high blood pressure. Summer squash is sodium free.
- Summer squash, as part of a low sodium diet, may reduce the risk of high blood pressure.

# Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Summer squash contains no saturated fat or cholesterol.

### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber,

Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Summer squash is high in vitamin C.

### Healthy Recipes with Summer Squash



Pesto Chicken Vegetable Kebabs



Yellow Potato and Red Pepper Shrimp Sauté



<u>Grilled Pineapple Ginger Glazed</u> Chick<u>en</u>



<u>Pasta Primavera</u>



Sesame Garlic Vegetable Medley

Snowboard Swooshin' Squash



Tagliatelle Style Vegetables with Tomato Red Pepper Sauce







# SWEET CORN

### How to Select

Choose ears with green husks, fresh silks and tight rows of kernels.

### How to Store

Refrigerate corn with husks on for use as soon as possible or within 1-2 days.

### Links to More Information

Corn Lollipops Cutting Corn Kernels Selecting Corn

### Social Media Posts

Grab some freeze dried sweet corn and add to your traditional recipes.

**#DidYouKnow** the average ear of corn has 800 kernels, arranged in 16 rows? There is one piece of silk for each kernel.

Bring them home for the holidays with this hearty and delicious Apple Corn Chili: <u>http://ow.ly/r60Ak</u>

Take corn to another level! Enjoy this Corn on the Cob w/Chili Lime Butter: <u>http://ow.ly/mRpGk</u>





### Nutrient Content Claims

low in fat saturated fat free cholesterol free sodium free

### **Health Claims**

### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Sweet corn is low in fat.

### Sodium & Hypertension:

 Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Sweet corn is sodium free.

### Healthy Recipes with Sweet Corn



Shrimp Confetti Salad Sandwich with Grapes



Apple Corn Chili



Fiesta Frescada Wraps and Bellafina Boats



Grilled Chicken Lettuce Wraps with **Blueberry Bell Pepper Relish** 



terol.

Bean and Cheese Quesadilla

Diets low in sodium may reduce the risk of high blood

pressure. Sweet corn is sodium free.

reduce the risk of high blood pressure.

**Coronary Heart Disease:** 

• Sweet corn, as part of a low sodium diet, may

Dietary Saturated Fat & Cholesterol & Risk of

While many factors affect heart disease, diets low in

saturated fat and cholesterol may reduce the risk of this

disease. Sweet corn contains no saturated fat or choles-



**Cheesy Corn Potatoes** 

Corn and Black Bean Salsa

Corn on the Cob with Lime Butter

Snowboard Swooshin' Squash



Dandyfreshproduce

dandy fresh



dandyfreshproduce







# SWEET POTATOES

### How to Select

Choose firm, small-to medium-sized potatoes with smooth skin. Avoid cracks, soft spots and blemishes.

### How to Store

Store sweet potatoes in a cool, dark place for use within 3-5 weeks.

### Links to More Information

**Choosing Sweet Potatoes** Difference Between Sweet Potato & Yams

Using Sweet Potatoes

### Social Media Posts

@Fruits\_Veggies knows how to get the holidays off to a delicious & healthy start! Try this Sweet Potato and Apple Casserole: http://ow.ly/UMcuF

Have a party in the pot for #MeatlessMonday! Enjoy this Black Bean & Sweet Potato Chili: http://ow.ly/U8z6N

**#DidYouKnow** there's a difference between a sweet potato & a yam? Your Produce Man solves the mystery: http://ow.ly/emVY1

trition Facts

Includes 0g Added Sugars

\*The % Daily Value tells you how much a nutrient in a

day is used for general nutrition advice. Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

serving of food contributes to a daily diet. 2000 calories a

1 medium (130g

100

0%

0%

0%

3% 8%

14%

0%

0%

2% 6%

10%

35%

20%

% Daily Value

A sweet start to a delicious dinner! Impress your guests with this Sweet Potato-Pear Soup: http://ow.ly/EuQuP

Chef hat not required! Sweet Potato Pancakes w/ Balsamic Mushrooms make 4 a nutritious brunch to show off 4 ur family. http://ow.ly/p1Xea

Cinnamony-sweet potato bites make a robust appetizer for parties or a quick little snack just for u! Get the recipe: <u>http://ow.ly/uFVth</u>

### Nutrient Content Claims

fat free, saturated fat free, cholesterol free low in sodium good source of fiber good source of potassium high in vitamin A high in vitamin C



### **Health Claims**

### **Dietary Fat & Cancer:**

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Sweet potatoes are fat free.

### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors.
   Sweet potatoes are low in sodium.
- Diets low in sodium may reduce the risk of high blood pressure. Sweet potatoes are low in sodium.
- Sweet potatoes, as part of a low sodium diet, may reduce the risk of high blood pressure.

# Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Sweet potatoes contains no saturated fat or cholesterol.

### Healthy Recipes with Sweet Potatoes



Salmon Burgers and Sweet Potato Oven Fries



Sweet Potato Pancakes with Balsamic Maple Mushrooms



Eggs over Kale and Sweet Potato Grits



Low fat diets rich in fiber-containing grain products, fruits, and vegetables may reduce the risk of some of cancers, a disease associated with many factors. Sweet potatoes are a good source of fiber.

### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Sweet potatoes are high in vitamins A and C.

# Potassium & High Blood Pressure/Stroke (Authoritative Statement):

Diets containing foods that are a good source of potassium and that are low in sodium, like sweet potatoes, may reduce the risk of high blood pressure and stroke.



Mashed Sweet Potatoes and Turnips

Rockin' Sweet Potato Poppers



Sweet Potato-Pear Soup





# TOMATOES

### How to Select

Choose tomatoes with bright, shiny skins and firm flesh.

### How to Store

Store at room temperature away from direct sunlight, for use within 1 week after ripe. Tomatoes taste best if not refrigerated; refrigerate only if you can't use them before they spoil.

### Links to More Information

Making a BLAST Sandwich Seeding & Using Tomatoes

Selecting & Storing Tomatoes

Storing & Using Tomatoes

Using Grape Tomatoes

Using Tomatoes

Varieties of Tomatoes

### **Social Media Posts**

Boil diced or crushed tomatoes in a veggie or chicken broth for the base of a homemade tomato soup! Add fresh herbs and spices to make your own unique recipe.

Nutrition Fac

1 medium (148g

25

0% 0%

0%

1%

2% 4%

0%

0% 2%

6%

8%

6%

25%

% Daily Value

Serving size

Calories

Total Fat 0g

Sodium 20mg

Protein 1g Vitamin D 0mcg

Calcium 20mg Iron 1mg

Potassium 340mg

Vitamin A 50mcg

Vitamin C 24mg

Amount per serving

Saturated Fat 0g Trans Fat 0g Cholesterol 0mg

Total Carbohydrate 5g

Includes 0g Added Sugars

\*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.

Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

Dietary Fiber 1g Total Sugars 3g

**#TipoftheDay** When the weather turns cooler try making soup to warm you up! Canned tomato juice makes a tasty base for vegetable soup broth.

**#TipoftheDay:** Try adding diced tomatoes, cucumbers and onions to your turkey-dogs.

**#DYK** There are 25,000 varieties of tomatoes such as beefsteak, cherry, & plum? #Watch these videos to learn more --> <u>http://ow.ly/hy1u304dOTy</u>

Squash is in season and there are many ways to enjoy! Try Squash w/Tomato-Garlic Sauce 4 a quick, easy dinner: <u>http://ow.ly/p1W3x</u>

For #MeatlessMonday enjoy this ROBUST and SAVORY Tomato-Pepper Pasta: <u>http://ow.ly/MyRoL</u>



The possibilities are ENDLESS when eating TOMA-TOES! For National Tomato Month, go beyond tomato sauce & enjoy these 10 ways: <u>http://ow.ly/BP4Ke</u>

Canned tomatoes are the perfect addition to soup bases for added flavor and texture. Try this Zesty Tomato Soup: <u>http://ow.ly/AHUt2</u>

Short on time for dinner? Canned tomatoes are ready to use! Chopped garlic + olive oil + canned tomatoes + fresh basil = quick pomadoro!

### Nutrient Content Claims

fat free saturated fat free cholesterol free very low in sodium low in calories high in vitamin C

### Fruits & Vegetables & Cancer:

Low fat diets rich in fruits and vegetables (foods that are low in fat and may contain dietary fiber, Vitamin A, or Vitamin C) may reduce the risk of some types of cancer, a disease associated with many factors. Tomatoes are high in vitamin C.

### **Health Claims**

### Dietary Fat & Cancer:

Development of cancer depends on many factors. A diet low in total fat may reduce the risk of some cancers. Tomatoes are fat free.

### Sodium & Hypertension:

- Diets low in sodium may reduce the risk of high blood pressure, a disease associated with many factors. Tomatoes are very low in sodium.
- Diets low in sodium may reduce the risk of high blood pressure. Tomatoes are very low in sodium.
- Tomatoes, as part of a low sodium diet, may reduce the risk of high blood pressure.

# Dietary Saturated Fat & Cholesterol & Risk of Coronary Heart Disease:

While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease. Tomatoes contains no saturated fat or cholesterol.





### Healthy Recipes with Tomatoes



European Salad



Herbed Garden Pizza



Potato Skins with Buffalo Chicken







Mushroom Steak Fajitas



Shrimp Confetti Salad Sandwich with Grapes



Pesto Chicken Vegetable Kebabs



<u>Vidalia<sup>®</sup> Onion and Tomato Salad</u> with Grilled Tuna



Fiesta Frescada Wraps and Bellafina Boats









Cool Quesa





# Section 4: Additional PBH Resources

# PBH's Award-winning Websites

more





- Be sure to check out items in our **Retail Section** including the **Fruit & Veggie Opportunity Gap** worksheet (to determine the potential for increasing your company's ROI through increased fruit and vegetable sales).
- Join or view our **webinars** for CPEU's from the Commission on Dietetic Registration.
- Visit the **Public Sector** section of our 'influencer' website for new and useful information, including our *Fruit & Veggie Connection* Magazine and Social Media Sample Tweets.





MORE! HALF YOUR PLATE WITH FRUITS &

# Consumer Website FruitsAndVeggiesMoreMatters.org

- Visit our **Fruit & Veggie Nutrition Database** for selection, storage, nutrition, and preparation tips.
- Search through our **Fruit & Vegetable Recipe Database** for over 1,000 healthy meal and snack ideas.
- Post activities that are going on in your local stores or community at **Fruit and Veggie Happenings.**
- The popular Fruit & Vegetable Video Center section features 300 videos with Michael Marks, Your Produce Man, demonstrating how to select, store, and prepare fruits and veggies.
- Learn more about PBH's **MyPlate Makeover Challenge** Encourage your customers to participate by sharing their ideas about ways they are eating more fruits and vegetables.

# Website for kids ages 2-8 FoodChamps.org

This fun, interactive website with games, activities, and recipes was designed especially for children ages 2-8.



# Customizable Materials

PBH offers a wide variety of free downloadable materials and resources that can be customized to fit your company's marketing needs and style formats.\*



These weekly articles provide consumers with timely and accurate information about fruit and veggie "rumors."



### Retail Marketing Materials

These resources include fact sheets, "shell" press releases, ad slicks, drop-in ad messages, school tour materials, Spanish materials, and seasonal marketing tools with fruit and veggie of the month recipes and columns including materials like **Take Your Child to the Supermarket** Promotion Materials!



### Quick Recipes: 30 Minutes or Less

Check out our easy-to-prepare recipes that are perfect for today's busy lifestyle, including our Seasonal Recipe Archive.

### Fruits & Veggies On A Budget

The perfect resource for meal planning, shopping, storage, preparation, and cooking tips designed to help consumers get the most from their money when buying fruits and veggies!

### Weekly Menus & Shopping Lists

Printable menus as a quick store tour or customer give-away!

### Social Media

PBH offers monthly ready to use, or customizable, social media posts. Use these in your own efforts or pass them along to your social media or marketing team.

### Webinars

PBH offers informative webinars about various fruit and vegetable topics for Registered Dietitians/Nutritionists. Continuing professional education units (CPEU) are available.

### Free Nutrition Education Materials

Download and distribute a wide array of fruit and vegetable nutrition education materials including activity books, games, posters, brochures, books, recipe cards, and more!



### FoodChamps.org

This website for kids offers great resources for you to share with Moms, including free downloadables of **Printable Recipe Cards** and an activity sheet for a **Supermarket Scavenger Hunt.** 

**Note:** You have our permission to reprint any of these materials. When using any materials from these websites, please give PBH credit as the source of information by including the following tagline, "Courtesy of FruitsAndVeggiesMoreMatters.org" or "Courtesy of Produce for Better Health Foundation."

\*Within reason, advanced notice, and our ability to fit into our current work schedule, we may be able to help you with minor customization if you don't have easy access to your own design staff.



# Social Media Tools

It's easy to stay connected with PBH (and get great ideas and content, whenever you need them) via our social media outreach.



Like us on Facebook
Fruits & Veggies—MoreMatters



Follow us on Twitter
Fruits\_Veggies



Join us on Pinterest **fvmorematters** 



Follow us on Instagram and tag us in your fruit & veggie pics. **fruitsandveggiesmorematters** 



Check out our weekly Mom's blog, Stem and Stalk . . . Let's Talk

# Sign up for PBH's Online Publications

All of the following publications are available via direct email from PBH or online at one of our websites. Be sure to sign up for our emails and check our websites for instant access to these informative materials!

### Get More Info

As a health professional, be sure to sign up to receive information about our free webinars, social media posts, and *Fruit & Veggie Connection* Magazine.

### Stay Informed

Sign up for free (consumer-focused) newsletters, reminders and tips, including recipe of the week, weekly menu ideas, gardening reminders, and more.

### Retail Matters

PBH's quarterly newsletter is filled with retail-specific information about marketing fruits and veggies which can help you improve your company's bottom line. View back issues at *Retail Matters Archives*. To have your name added to the *Retail Matters*' mailing list, email your contact information to **akissel@pbhfoundation.org**.

### PBH Direct!

This monthly email keeps you up to date on PBH happenings. To receive this newsletter, send your contact information to **akissel@PBHFoundation.org.** 



### Fruit & Veggie Connection

A PBH magazine published twice a year for health professionals that helps summarize relevant and important information related to fruit and vegetables.



# PBH Grant Program



Produce for Better Health Foundation (PBH) is offering \$50,000 in grant funding annually to encourage enhanced collaboration between supermarkets and university nutrition & dietetic programs with a specific emphasis on training nutrition and dietetic students to deliver grocery store tours. Grants will be limited to \$5,000 per internship program per semester.

The application submission deadline is April 30 for the fall semester and September 30 for the spring semester. For more information see the **Request for Proposal**.

# PBH Industry Awards



### Supermarket Role Models and Champions

Each year at our annual meeting, PBH recognizes those companies and organizations that have consistently shown a wide range of support for the Fruits & Veggies—More Matters<sup>®</sup> public health initiative. Learn more about **PBH's criteria** for becoming a Fruits & Veggies More Matters' Supermarket Role Model or Champion.

### Supermarket Dietitian of the Year

Created in 2013, the PBH **Supermarket Dietitian of the Year** (SDA) recognizes supermarket dietitians and retail health and wellness staff who support PBH and the Fruits & Veggies—More Matters<sup>®</sup> national health campaign and brand. The call for nominations will begin at the end of November and will be accepted from December 1-January 31. The top supermarket RDs and/or health and wellness staff will be chosen by February 5 and will be honored at PBH's Annual Conference and in PBH Direct!, *Retail Matters,* trade release, etc. Honorees will be invited to attend PBH's Annual Conference, with complementary travel, hotel, and registration provided by the foundation.

# Supermarket Insider's Viewpoint



You'll find expert supermarket advice online in our Insider's Viewpoint columns. These weekly columns can also be found on PBH's Facebook page and Twitter platforms. Previous columns are also available online at Insider's Viewpoint Archives.

To participate in our regular supermarket dietitian's column, email **epivonka@pbhfoundation.org.** 



# PBH Research Reports and Consumer Surveys

PBH regularly conducts literature reviews, surveys, and consumer research related to fruit and vegetable consumption. The data, analysis, and findings are used to help advance the consumption of fruits and vegetables as a way to improve America's public health. These and other reports are available online at **PBH Research**.



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### Moms' Attitudes and Beliefs Related to Fruit & Vegetable Consumption 2007-2015

Using data from PBH's annual survey of Moms with kids 10 and under from 2007-2015, this cumulative report was created to help identify sales and communication strategies regarding fruit and vegetables. The report also includes key insights into the awareness of the Fruits & Veggies—More Matters<sup>®</sup> brand and how that awareness translates to sales and increased consumption.

### 2015 Dads' vs. Moms' Attitudes Related to Fruit & Vegetable Consumption

Does Dad differ from Mom when it comes to getting the family to eat fruits and vegetables? PBH's latest report addresses this question, and more.

### State of the Plate: 2015 Study on America's Consumption of Fruits & Vegetables

This report provides key insights and trends in consumption of fruit and vegetables over the past 5years, including a look at future consumption projections.



### National Action Plan to Promote Health Through Increased Fruit and Vegetable Consumption, 2015 Report Card

This report card examines the progress that has been made in the strategies outlined in the 2005 National Action Plan.

# Primary Shoppers' Attitudes and Beliefs Related to Fruit & Vegetable Consumption, 2012 vs 2014

PBH conducted a survey of primary shoppers in 2012, including both male and female shoppers over the age of 18. A follow-up survey was conducted in 2014. This report compares changes over time and identifies key differences among populations by gender, age, and income.

### Behavioral Economics and the Psychology of Fruit and Vegetable Consumption: A Scientific Overview, 2012

This report outlines marketing displays, tools, incentives, and promotions can make it easier for consumers to make fruit and vegetable consumption decisions that support long-term health.



# Additional PBH Reference Materials







### PBH's Annual Conference: The Consumer Connection April 5-7, 2017

*The Consumer Connection* conference unites companies and individuals for a noteworthy 3-day conference full of high-energy sessions, one-on-one business meetings, upto-date research, and a variety of interactive events designed specifically to help YOU connect.

### **PBH Annual Report**

This report highlights PBH's activities during the previous year, including our latest research and survey findings and PBH's outreach efforts involving consumers and members of the fruit and vegetable industry.

### Fruits & Veggies—More Matters Brand Guidelines

PBH encourages licensees to use the Fruits & Veggies— More Matters logo and brand in their advertising, product packaging, promotional materials, POS signs, etc. These Brand Guidelines are used by PBH to ensure that all logo uses meet these standards, protecting the integrity of the Fruits Veggies—More Matters brand and logo.

# As always, please feel free to contact PBH directly if you have any questions or need assistance.

For nutrition/research inquiries: Elizabeth Pivonka at 302-235-2329 ext 315 or epivonka@PBHFoundation.org

For graphics/licensing inquiries: Kristen Stevens at 302-235-2329 ext 312 or kstevens@PBHFoundation.org

For general membership inquiries: Cyndy Dennis at 302-235-2329 ext 330 or cdennis@PBHFoundation.org







# PROFESSIONAL AMBASSADORS

Today over half of all US adults — 66 percent — and a third of children and adolescents are either overweight or obese. Health costs associated with Americans' growing waistlines are astronomical, even without taking into account other diet-related diseases. Corresponding with escalating health care costs is \$7.3 billion spent annually in food advertising, with only 2% of all advertising spent on promoting fruits and vegetables.

Meanwhile, recommendations for fruit and vegetable intake have increased as a result of a growing body of research that suggests numerous potential benefits for prevention of disease, yet most Americans still need to double their fruit and vegetable consumption each day. Growers lack marketing dollars to advertise their products and have supported Produce for Better Health Foundation (PBH) with voluntary contributions since 1991 to help increase fruit and vegetable consumption.

PBH has developed programs and materials for consumers, health professionals, the media (including social media), growers, supermarkets, and other thought leaders to encourage greater fruit and vegetable consumption and advocate for the Fruits & Veggies—More Matters® national health campaign and program.

PBH is now launching a program to encourage our younger generation of nutrition professionals to join with us as a PBH Professional Ambassador to help us increase fruit and vegetable consumption for America's health! To be a PBH Professional Ambassador, we ask you to do 10 of any of these items outlined on the following page.



Sign-up as a PBH Professional Ambassador

### **Become Familiar With PBH Resources**

- □ Consumer website: <u>FruitsAndVeggiesMoreMatters.org</u>
  - □ <u>Video Center</u>
  - □ <u>Recipes</u>
  - □ Supermarket RD Insider Viewpoint
  - Daily Fruit & Vegetable News Feed
  - □ <u>My Community Sharing Site</u> (Market your own programs here, see what's happening in your local area, find other national programs)
  - □ <u>About the Buzz</u> (consumer articles about fruits/veggie "rumors")
  - □ Plate Makeovers
- □ Influencer website: PBHFoundation.org
- □ Kids website: FoodChamps.org

### **Stay Informed**

- □ Sign-up for Consumer e-communications
- □ Sign up for health professionals materials: <u>Fruit & Veggie Connection Magazine & Webinars</u>
- □ Watch one of our <u>Recent Webinars</u>
- □ Review our <u>All Forms</u> document

### **Follow Us!**

- □ Fruits & Veggies—More Matters on Facebook
- □ Fruits & Veggies—More Matters on Twitter
- Participate in a monthly PBH Twitter party 4 pm ET, 1st Wed each month
- □ Fruits & Veggies—More Matters on Pinterest
- Fruits & Veggies—More Matters on Instagram

### **Share with Friends!**

- □ Actively retweet/repost from PBH social media platforms
- □ Encourage friends to participate in a monthly PBH Twitter party 4 pm ET, 1st Wed each month
- Promote Fruits & Veggies—More Matters<sup>®</sup> Month in September
- Promote fruits and veggies during National Nutrition Month<sup>®</sup> in March
- □ Post your own fruit/vegetable cooking demos
- □ Post photos/recipes of your favorite fruit/veggie dishes

- Share in Your Cafeteria!
- Talk with dining services about current efforts to offer healthy, tasty fruit and vegetable menu items
- Encourage that vegetable options be bundled into grab and go meals
- Encourage fun, creative, age-appropriate names for daily fruit/veggie options
- Encourage that fruit options be displayed attractively near registers
- □ Encourage that healthier menu options be displayed or promoted prominently
- □ Encourage more veggies as part of entrees
- □ Rebalance desserts: e.g. strawberries, or chocolate dipped strawberries instead of chocolate cake with one berry on top
- □ Promote Fruits & Veggies—More Matters Month
- □ Promote fruits and veggies during National Nutrition Month

### Share in your Community!

- Promote Fruits & Veggies—More Matters at community or college fairs
- □ Similarly promote fruits and veggies during National Nutrition Month
- □ Include fruit and vegetable tips in your blog
- □ Share tips on proper fresh produce storage
- □ Share tips around '<u>healthy eating on the go</u>'
- □ Share tips on 'eating on a budget'

### What else?

 Tell us about other great stuff you've done to help promote fruits and vegetables and Fruits & Veggies—More Matters (Please attach a separate page.)

Check the items on this form you have completed during the calendar year and submit it to development@PBHFoundation.org by December 1 each year. You will receive a PBH Ambassador Certificate.

You might also win a free trip in the spring (to someplace warm) and have a chance to meet leaders in the effort to increase fruit and vegetable consumption at our annual conference.





### Produce for Better Health Foundation

Produce for Better Health Foundation (PBH) is a non-profit 501 (c) (3) consumer education foundation whose mission is to motivate Americans to eat more fruit and vegetables to improve public health. PBH partners with government agencies like Centers for Disease Control and Prevention (CDC), non-profit organizations, health professionals, educators, and members of the fruit and vegetable industry to promote increased consumption of fruit and vegetables. We leverage private industry and public sector resources, influence policymakers, motivate key consumer influencers, and promote fruit and vegetables directly to consumers.



### Fruits & Veggies—More Matters®

Managed by PBH, Fruits & Veggies—More Matters is the nation's largest public-private fruit and vegetable nutrition education initiative. The foundation of Fruits & Veggies—More Matters is a brand logo and messaging designed to motivate Americans to eat more fruit and vegetables. Fruits & Veggies—More Matters materials and messages are widely featured in print, on websites, and on social media platforms like Facebook, Twitter, Pinterest, YouTube, and blogs. Since its inception in 2007, it is estimated that the Fruits & Veggies—More Matters logo has been seen an average of 336 times by every American.



