

Cooperative Extension

Rethink Your Drink

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The great variety of beverages available makes it difficult to make the healthy choice. People’s choices matter, as the increased consumption of sugary beverages has been linked to high rates of obesity and chronic diseases such as diabetes and heart disease. Health experts recommend reducing consumption of sugary beverages and selecting healthier options.

Water is an ideal beverage. It helps us stay hydrated. It is free or low-cost and it doesn’t contain any calories or sugar. Still, many people prefer sugary, high-calorie beverages to quench their thirst. Added sugar is the main ingredient in soda, lemonade, fruit punch, and in sport and energy drinks. Examples of added sugar are sucrose (table sugar) and high-fructose corn syrup. These sugars add “empty calories” which do not provide any nutritional value to the beverage. In contrast, milk and 100% fruit juices contain naturally occurring sugar (lactose in milk and fructose in juice) but also contain important nutrients (calcium in milk and Vitamin C in juice). Read the “Nutrition Facts Label” on beverages to see how many calories and how much sugar are in a serving. There are about 4 grams of sugar in one teaspoon. For example, a 12 ounce of cola has 39 g of sugar (9 3/4 teaspoons) and 140 calories. Drinking a 12 ounce cola every day over a year will result in consuming 31 pounds of sugar and may result in gaining up to 15 extra pounds.



Make the healthier beverage choice:

- **Choose water.** Use lemon or fresh herbs, fruits or vegetables to add flavor. Try adding slices of cucumber, lime or mango.
- **Read nutrition information** on beverages to identify amounts of sugar, calories and serving size.
- **Drink plain coffee and tea,** which are calorie-free options. Use low-fat or non-fat milk to lighten over cream. Beware of high calorie, flavored coffee “drinks”.
- **Limit 100% juice intake to 4-6 ounces per day.** Young children should have no more than 4 ounces of juice per day. Juice may count for a serving of fruit or vegetable, but eating whole fruits and veggies will provide fiber and fill you up more than juice. Another trick is to dilute juice with water or seltzer.
- **Drink one to three cups a day of non-fat or low-fat milk.** Milk provides calcium, Vitamin D, protein and other nutrients. Calcium-fortified soymilk, nut milks and other milk alternatives are good choices for people with dairy allergies or lactose intolerance.

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Food Safety When Shopping

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Delis, supermarkets, and grocery stores are responsible for providing high quality, safe foods to their customers. This includes handling these foods hygienically and storing them at the proper temperature. You also have responsibilities as a customer to select, pack and transport foods safely. Here are some tips to follow while shopping to keep your foods safe and keep your family free from food poisoning.

Safe tips when food shopping:

- ✓ Check packaging carefully and do not purchase packages with rips, tears or punctures.
- ✓ Purchase hot, refrigerated, or frozen items, including meat, poultry, fish and eggs, at the end of your shopping trip. You can use a cooler or insulated bag to help keep hot foods hot and cold food cold.
- ✓ Prevent cross-contamination by placing raw meat products (e.g. meat, poultry and seafood) in an overwrap plastic bag (some stores provide these), and then use hand sanitizer.
- ✓ Put heavy items at the bottom of the shopping cart and soft food on the top to prevent damage to the packaging.
- ✓ Take frozen, refrigerated or hot foods home as quickly as possible. Do not leave them in the car while you run other errands.
- ✓ When you get home, unload your groceries right away. Refrigerate or freeze all perishable items promptly.

Never buy:

- ✓ Food that is unlabeled or past the sell-by, use-by or other expiration dates.
- ✓ Food in damaged or imperfect packaging (e.g. leaking, rusted cans or pierced packaging).
- ✓ Fresh fruits or vegetables that are bruised, damaged, or spoiled.
- ✓ Cut fruits or vegetables that are not displayed in refrigerated areas.
- ✓ Cracked or dirty eggs.
- ✓ Chilled or frozen foods that are not under refrigeration or hot foods which are not steaming hot.

VISIONS

is a peer reviewed newsletter published three times yearly and sent upon request, without charge.

Published by

Rutgers Cooperative Extension
Department of Family & Community Health Sciences

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Desktop publishing by: Arly Ditto Graphics

Printed March, 2016



For more information:

United States Department of Agriculture, Food Safety and Inspection Service, Safe Food Handling. Kitchen Companion. Available at: http://www.fsis.usda.gov/wps/wcm/connect/6c55c954-20a8-46fd-b617-ecffb4449062/KitchenCompanion_Single.pdf?MOD=AJPERES

Better Health Channel. Food safety when shopping. Available at: http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Food_safety_when_shopping?open.

Fight Bac! Shopping tips. Available at: <http://www.fightbac.org/winter/safe-holiday-meal-tips-and-planning/shopping-tips/>

*Daniele is a PhD student at the University of São Paulo, São Paulo Brazil. She is visiting Dr. Schaffner's lab and developing a quantitative microbial risk assessment for Salmonella in ready-to-eat vegetables.

Common Myths in Nutrition DEBUNKED

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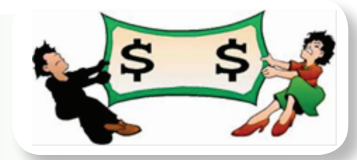
With the abundant amount of information we are fed through magazines, television, and the internet, it can be hard to decipher what's true and what is a myth in the nutrition world. Believing some of these myths can negatively impact our health. Let's clarify some of these myths:

Myth	Truth
Sugar Causes Diabetes	If you do NOT have diabetes, eating sugar will not cause it. The main risk factors for type 2 diabetes are being overweight or obese and an inactive lifestyle. People with type 2 diabetes should monitor their total carbohydrate intake including added sugars.
All Fats are Bad	Fats are not bad! In fact, we need some fat to survive. Some vitamins and nutrients are only absorbed with the help of fat such as: <ul style="list-style-type: none"> • Vitamin A, vitamin D, vitamin E, and vitamin K. • Some fats like mono- and polyunsaturated fats promote good health while others increase the risk for heart disease. Try to eat less saturated fat found in animal products and choose healthier fats such as those from plant-based foods.
Gluten is bad!	Gluten is a protein found naturally in wheat, rye, and barley. Unless you have Celiac Disease or have been advised by your doctor to avoid it, gluten should not cause a problem for you. Cutting gluten out from your diet may prevent you from obtaining important nutrients offered by gluten-containing foods.
Frozen and canned fruits and vegetables are not healthy	Frozen and canned produce can be just as nutritious as fresh produce. They are usually picked and packed at the peak of ripeness when nutrient levels are highest, whereas fresh produce is sometimes picked long before it reaches the store.
Low-fat and fat-free means healthy	Unfortunately, this isn't always the case. Reduced-fat items sometimes compensate by adding more sugar. This can actually increase the calories and sugar content of the food making it more like junk food. Remember to always look at nutrition fact labels to get a better idea of what you are eating.
Red meat causes cancer	Recently, it has been concluded that regular eating of processed meats (like bacon and hotdogs) increases the risk of colorectal cancer. However, that does not mean you will get cancer if you eat meat. Cancer develops for a number of reasons including genetics, lifestyle, diet, stress, etc. Lean red meat is a great source of iron, B-vitamins, zinc, and an excellent source of protein. Maintaining a healthy lifestyle, eating a diet rich in fruits, vegetables and whole grains and consuming lean red meat only a few days of the week will keep your risk for cancer low.
Eggs = high cholesterol Avoid!	Yes, eggs are high in cholesterol, but they do not raise blood cholesterol or increase heart disease risk for the majority of people. A review of studies has shown that healthy people who ate eggs did NOT have a change in their blood cholesterol level. Eggs, especially the yolk, contain an abundance of nutrients that really makes an egg a great source of protein and nutrients. For people who have diabetes and /or heart disease, it is best to limit egg consumption to no more than three yolks per week.

There will always be myths about nutrition as new research develops. Make sure to validate the information you hear. This can be done by checking the information and its sources to ensure that the information is credible, current, and backed with sufficient scientific evidence.

"Stretching" Strategies for Health and Wealth

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The Rutgers Cooperative Extension **Small Steps to Health and Wealth™ (SSHW)** program encourages people to make positive behavior changes to simultaneously improve their health and personal finances. Information about SSHW can be found at <http://njaes.rutgers.edu/sshw/>, including the entire 132-page SSHW workbook, which is available for free downloading.

Note the emphasis on the words "small steps" in the program title. This is significant because "little changes" can really make a difference over time. For example, 100 fewer calories eaten per day translates into about 10 pounds of annual weight loss and \$20 a week of savings grows to over \$1,000 over a year. A small change people can make to improve their health and finances is "stretching" food and beverage consumption so that they simultaneously consume fewer calories and buy things less frequently, thereby saving money. Below are four examples:

- **Water Down Juices** - Mix them with water in a 50/50 or 2:1 juice to water ratio depending on personal preference. Not only will you cut calories according to the mixing proportion that you select (there are 112 calories in 8 oz. of orange juice and 107 calories in 8 oz. of apple juice), but you'll buy juice less frequently. If you purchase 52 fewer cartons of juice at a cost of \$3 each, that's \$156 in savings over the course of a year. An 8-oz. glass of OJ has almost 2.5 times the sugar as a typical piece of fruit!



- **Stretch Wine and Cocktails** - Let's say you're going out to dinner at a restaurant with friends. Order one drink, instead of several, along with a large cup of ice. Your drink will last a lot longer with the ice to refill it and you won't need to order another one, again saving calories (a 5 oz. glass of wine has 100 calories) as well as reducing the chance of a DWI. Assuming everybody pays for only what they consume, you'll save money by buying one drink instead of several. If someone elects not to purchase 104 glasses of wine (two a week) at a cost of \$6 apiece at a restaurant, that's \$624! For even more savings, you could, of course, order free and zero-calorie tap water with a lemon or lime. You can also "ice down" beverages consumed at home to stretch out your supply, similar to the juice example above.



- **Bring Home Leftovers** - Many restaurants and workplace cafeterias serve very large portions. When eating out, bring your own plastic containers (it's more environmentally friendly than taking home Styrofoam) and take half to two-thirds of your meal (depending on the portion size) home for future meals. Again, you'll save a significant number of calories by spacing out a 1,000 + calorie food portion over several meals, especially when you request that sauces be served "on the side." Assuming someone eats out once a week and takes enough food home for two additional meals, that adds up to 104 meals that don't need to be purchased because food from a restaurant or cafeteria is already available. At a conservative estimated cost of \$4 per meal, that's \$416 in annual savings.



- **Split an Entrée or Dessert** - Another way to avoid eating large food portions is for two people to split the calories and cost of an entrée or dessert. Even including restaurant "plate charges" for shared food, the cost savings can be substantial compared to the cost of ordering two separate meals. In addition, two people eat a half portion instead of a full one, thereby halving the calories. This strategy especially works well when you are traveling and taking food home, or even to a hotel room, is not an option. It avoids the mental trap of eating everything on your plate "to get your money's worth." Follow this strategy 52 times a year and save \$15 and you've saved \$780 annually. Another good choice is ordering smaller size and lower cost half-size portions when eating out or appetizers as a meal.



There are many relationships between health and personal finances including the fact that decisions made in one area of your life (e.g., eating patterns) can affect the other (e.g., food and beverage expenses). This article has identified potential annual cost savings of almost \$2,000 from four "stretching" strategies that affect both calories consumed and dollars spent. Perhaps you can think of others. Want to save money? You may not need to look any further than your refrigerator.

Vitamin D - Combatting Deficiency

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As we approach the colder season, we are all more likely to stay inside and snuggle up by the fire as opposed to getting warmed by the Earth's natural heat source: the sun. As a result, our bodies are less likely to produce the "sunshine" vitamin, or Vitamin D, which is synthesized by the skin through modest or ordinary exposure to sunlight. According to the American Journal of Clinical Nutrition, the deficiency of Vitamin D is considered a pandemic.

Vitamin D has several important bodily functions including:

- Keeping bones healthy and preventing bone diseases by maintaining calcium and phosphorus balance
- Protecting against some cancers, type 1 diabetes, multiple sclerosis, and cardiovascular disease
- Gene regulation
- Skin, muscle, pancreas, nerve, parathyroid gland, and immune system cell growth and proliferation



Inadequate vitamin D intake can lead to a disease called osteomalacia, meaning softening of the bones (osteo = bones, malacia = softening of a tissue). Osteomalacia causes muscle weakness leading to a higher risk of falls and fractures, as well as bone pain. A deficiency in vitamin D can also result in the development of osteoporosis, or porous bones. People with osteoporosis, most common in postmenopausal women, have a diminished bone mass with an increased risk of fractures as well.

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Age ¹	Recommendation for M/F ¹	Pregnancy Recommendation ¹	Lactation Recommendation ¹
0-12 months	400 IU (10 mcg)	N/A	N/A
1-13 years	600 IU (15 mcg)	N/A	N/A
14-70 years	600 IU (15 mcg)	600 IU (15 mcg)	600 IU (15 mcg)
71+ years	800 IU (20 mcg)	N/A	N/A

Natural Sources of Vitamin D ¹		
Food	Portion Size	Mcg per serving
Herring	3 oz	13.83
Herring (pickled)	3 oz	5.78
Salmon (pink/canned)	3 oz	5.30
Halibut	3 oz	5.10
Cod liver oil	1 tsp	4.50
Catfish	3 oz	4.25
Mackerel (Atlantic)	3 oz	3.06
Oyster	3 oz	2.72
Shitake mushrooms (dried)	4	2.49
Tuna (light meat/canned in oil)	3 oz	2
Sardines (Pacific/canned in tomato sauce)	1 sardine	1.82
Shrimp	3 oz	1.29
Sardines (Atlantic/canned in oil)	1 sardine	0.33
Egg (cooked)	1 egg	0.26
Fortified sources ¹		
Tofu	1/5 block	1.20
Cow's milk	8 oz	1
Milk (canned evaporated)	4 oz	1
Rice milk	8 oz	1
Soy milk	8 oz	1
Orange Juice	8 oz	1
Pudding (made with fortified milk)	½ cup	0.50
Cereal	¾ cup	0.40
Yogurt	½ cup	0.40

The Face-Off: Dairy vs Non-Dairy Milk!

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The days of having only cow's milk are long gone. Many coffee shops, restaurants, supermarkets and yes, maybe even your neighborhood bodegas are now offering non-dairy options for those who are vegans, lactose intolerant, allergic, or simply do not like the taste of cow's milk. There are many types of non-dairy milk, and you may be wondering about the differences between them. Lets look at some of these different types of milk to help you decide.

Cow's Milk: Cow's milk has many nutrients needed for growth, such as protein and calcium. Protein is necessary to build, repair and maintain tissues, which is why getting enough protein is so important for everyone. Cow's milk is also a rich source of Vitamin D and calcium, which are important for bone health. Be sure to choose fat-free (skim or non-fat) or low fat (1%) milk because whole milk and reduced fat (2%) milk have more calories and saturated fat.

Soy Milk: Soy milk may be the most nutritious of the non-dairy milk types because it is low in saturated fat and calories, and high in protein. The fortified varieties can also be a good source of vitamins (A, D, and B12) and calcium. Keep in mind that while it looks similar to cow's milk, the taste can be "a bit nutty," which may take some getting used to. Try soy milk in smoothies, oatmeal, and cereal. Because sweetened varieties have higher levels of sugar, be sure to read the Nutrition Facts labels, particularly if you have diabetes or are watching your glucose levels.

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Nutrition Facts	
Serving Size 1 cup (8 fl oz) 240 mL	
Servings Per Container 4	
Amount Per Serving	
Calories 90	Calories from Fat 40
% Daily Value*	
Total Fat 4.5g	7%
Saturated Fat 0.5g	3%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 85mg	4%
Potassium 410mg	12%
Total Carbohydrate 4g	1%
Dietary Fiber 2g	8%
Sugars 2g	

Unsweetened soy milk

Nutrition Facts	
Serving Size 1 Cup (240mL)	
Servings Per Container 8	
Amount Per Serving	
Calories 120	Calories from Fat 25
% Daily Value*	
Total Fat 3g	4%
Saturated Fat 0.5g	3%
Trans Fat 0g	
Polyunsaturated Fat 1.5g	
Monounsaturated Fat 0.5g	
Cholesterol 0mg	0%
Sodium 80mg	3%
Potassium 350mg	10%
Total Carbohydrate 21g	7%
Dietary Fiber 2g	8%
Sugars 17g	

Sweetened chocolate soy milk

What's in a glass of milk?

Nutrition Facts (per 1 cup serving) ³	Cow's Milk (1%)	Soy Milk (unsweetened)	Almond Milk (unsweetened)	Coconut Milk (regular)	Rice Milk (regular)
Calories:	102	80	39	552	118
Total fat:	2.4 grams	4 grams	3 grams	57 grams	2 grams
Saturated fat:	1.5 grams	0.5 grams	0 grams	51 grams	0 grams
Carbohydrate:	12 grams	4 grams	1.5 grams	13 grams	23 grams
Sugars:	12 grams	1 grams	0 grams	8 grams	13 grams
Protein:	8 grams	7 grams	1.5 gram	5 grams	1 gram
Calcium: (% of daily requirement)	31%	30%	51%	4%	30%

The Face-Off: Dairy vs Non-Dairy Milk! - continued from page 6

Almond Milk: Almond milk is low in calories, has no saturated fats, and it is a good source of calcium if fortified and vitamins B12, A, D, and E. While whole almonds are a good source of protein, almond milk does not have much protein. Just be sure to enjoy almond milk with other high-protein foods, such as oatmeal, which has up to 7 grams of protein per serving. The texture of almond milk is similar to soy milk, and you may find the taste to be a little less “nutty” than soy milk.

Coconut Milk: Coconut milk is high in calories and saturated fat, and it is not a good source of protein, vitamins and minerals, unless it is fortified with vitamins or minerals. If you enjoy the taste and want to cook with it, you may want to look for a “light” variety, which has less saturated fat and calories than the regular coconut milk.

Rice Milk: Calorie and fat content of rice milk is close to the levels in low fat cow’s milk. Because rice milk has very little protein, try to enjoy it with other foods with more protein.

If your local market does not offer light, low fat or fat-free milk options, it does not hurt to ask the store’s owner if he/she would be willing to stock the varieties you would like to try. The bottom line is that both dairy and non-dairy milk can be a healthy part of your diet. Because most of the dairy and non-dairy milk varieties are fortified with vitamins and minerals, they can be good additions to healthful meals. An important step is to read Nutrition Facts labels and make sure you are getting enough vitamins, minerals and protein, while keeping saturated fat and calorie levels low. To learn how to use the Nutrition Facts labels, go to <http://www.fda.gov/Food/IngredientsPackagingLabeling/LabelingNutrition/ucm274593.htm>.

Sources: Photo by Jessica Ulloa.

- Protein in the diet: <https://www.nlm.nih.gov/medlineplus/ency/article/002467.htm>.
- Institute of Medicine, Food and Nutrition Board. *Dietary Reference Intakes for Calcium and Vitamin D*. Washington, DC: National Academy Press, 2010.
- MyPlate Supertracker at <https://www.supertracker.usda.gov/> and USDA Nutrient Guidelines at <http://ndb.nal.usda.gov/ndb/foods>.

Vitamin D - Combatting Deficiency - continued from page 5



Increased exposure to sunlight, increased intake of foods with a high vitamin D content or foods fortified with the vitamin, or supplementation can combat vitamin D deficiency. In order to prevent osteomalacia and osteoporosis, 10 to 15 minutes of sun exposure on a clear day during the warmer seasons for most adults is recommended. The use of sunscreen, rays being blocked through windows, clothing, and a darker skin tone can all affect penetration of sunlight through the skin. As for foods, many types of fish as well as fortified foods, like milk, are recommended to increase vitamin D intake. The recommended intake for adults is 15 mcg, and 20 mcg for adults over age 70. Due to a lack of high quality Vitamin D sources and low content in popular food and beverage sources, it is difficult to consume the recommended amount of daily Vitamin D for all age groups. Take time to talk to your physician or dietetics professional about a vitamin D supplement. Most of all, don’t assume if a little is good, then more must be better. Follow your health professional’s instructions as to the amount you should take daily.

References:

1. Mahan L K., Escott-Stump S., Raymond J L. *Krause’s Food and the Nutrition Care Process*. 13th Ed. St. Louis, Missouri: Elsevier, 2015.
2. Holick M F., Chen T C. *Vitamin d deficiency: a worldwide problem with health consequences*. *Am J Clin Nutr* 2008; 87(4) 10805-10865.
3. Clipart Panda. <http://www.clipartpanda.com/categories/sun-transparent-background>.

Jump Start Your Day: The Benefits of Breakfast

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While breakfast is often considered the most important meal of the day, many people regularly skip breakfast. Eating breakfast is so important because it refuels the body and provides the energy that is needed to start the day! Studies consistently show that people who eat breakfast tend to maintain a healthy weight because they are less likely to overeat later in the day. Other benefits of eating breakfast include better concentration throughout the day, higher scores on exams for students, and consumption of more essential vitamins and minerals. It may help you to be more awake, alert, and content throughout the day. If you skip breakfast because you are on a tight schedule and can't find time in the morning, you can make breakfast the night before and reheat it in the morning. Another option would be to make a to-go breakfast the night before that you can eat on the run! Do you need quick and healthy breakfast ideas? Try these great ideas from the Academy of Nutrition and Dietetics.



Power-Up with Breakfast Fast, Easy, Healthy Ideas for Your Busy Morning

- A bowl of instant oatmeal made with low-fat milk, topped with dried fruit and chopped nuts
- A parfait made with low-fat yogurt, fresh fruit, and low-fat granola
- A smoothie made with frozen strawberries, a banana, and low-fat milk or yogurt
- A whole-wheat waffle topped with low-fat yogurt and peach slices
- A whole-wheat pita stuffed with a sliced, hard cooked egg and low-fat shredded cheese
- A whole grain tortilla with peanut butter and banana
- A toasted whole wheat bagel with low-fat cream cheese and sliced strawberries
- A toasted whole wheat English muffin with lean ham and low-fat Swiss cheese



Looking for more nutrition tips? Visit the Academy of Nutrition and Dietetics at www.eatright.org/nutritiontipsheets.