After going through this lesson, you will be able to:

- Recognize the general dietary pattern that promotes health and prevents disease as well as other characteristics of a healthy diet;
- Identify factors that determine an individual’s energy needs;
- Differentiate between nutrient- and energy- dense foods;
- Correctly classify foods into the five food groups;
- Recall the recommended proportions of food groups on a plate or in a meal;
- Distinguish characteristics of instinctive eating, overeating, and restrictive eating cycles;
- Identify and practice the BASICS of mindful eating; and
- Compare and contrast your own dietary patterns to those described throughout the lesson.

So, what’s a healthy diet?

**One way to think of a healthy diet is in terms of its nutritional value.**

Nutrition is an evolving science. Researchers continue to learn about how various foods and dietary patterns affect our bodies, our health, and our disease risk. As you’re likely aware, different studies sometimes reveal conflicting results, which can be confusing and annoying, but fortunately, the dietary reference intakes and dietary guidelines are not based on individual studies or what’s most popular in the media. Experts review a lot of studies over time and take into consideration the quality of research methods, sample sizes, and other important factors before making—or modifying—recommendations.

**A healthy diet is one that provides the body with all of the essential nutrients that it needs to function at its best.**

It includes a variety of primarily whole foods and an appropriate amount of energy for your body. The amount of food and nutrients that’s healthy varies from person to person, depending on activity level and a variety of other factors.

**A healthy diet includes all foods.**

There are no good or bad foods per se. All foods, even those that are relatively unhealthy, can fit into a healthy diet. A key concept here is moderation. Too much of anything can be bad. Another key concept is adequacy; we need to get enough without getting too much, which means balancing our food choices.
A healthy diet is also one in which food is enjoyed. Food is often about more than just the nutrients it provides our bodies. It can be an important aspect of cultural and social events, for example, and even an extension or application of one’s values. In our attempt to define a healthy diet, we need to also consider what it means to have a healthy relationship with food—how we think and feel about food, how we make our food choices, and how we eat, for example.

Resources
I asked 8 researchers why the science of nutrition is so messy. Here’s what they said.

Calories refer to the energy provided by food. Daily calorie needs are determined by how much energy is needed for rest—not doing anything but keeping the body operating—plus physical activity. On average, it’s been estimated that most adults need about 2000 calories per day, but different people need different amounts of energy depending on their age, sex, and activity level.

People who regularly consume more calories than they expend are in positive energy balance, and weight gain is likely to occur. People who don’t consume enough calories to meet their energy needs for activity and other normal body functions are in negative energy balance, and weight loss is likely to occur. Being in neutral energy balance means meeting the body’s nutrient needs and maintaining weight, which is what’s recommended for anyone who’s already at a healthy weight. If weight loss is needed or desired in order to achieve a healthy weight, it’s best to aim for slow, steady weight loss by increasing physical activity and slightly decreasing calorie intake while still maintaining adequate nutrients. Restricting calories too much or eliminating certain food groups can cause deficiency in vital nutrients, lead to lethargy, and be hard to maintain over time. Weight loss diets that are too strict are often unsuccessful. They often lead to subsequent overeating and weight gain.
A good strategy for achieving and maintaining a healthy weight is to pay attention to what your body needs and follow the general principles of a healthy diet, which will be covered throughout this lesson. If, for you, this involves making a change, remember to be kind and patient with yourself; real, lasting change generally takes time.

**Resources**
- Estimate Your Personal Calorie Needs

Conflicting information exists about what is the best proportion of fat, carbohydrate, and protein in the diet.

Fat and carbohydrate are often blamed for weight gain and increased obesity rates; therefore, high protein and low carbohydrate diets have become popular. Keep in mind that the acceptable macronutrient distribution ranges are 10-35% from protein, 45-65% from carbohydrate, and 20-35% from fat.\(^1\) We need adequate amounts of all three for good health. If you choose to eat a diet that's relatively high in protein, it's important to still maintain adequate intake of carbohydrate and fat. For example, approximately 25% of calories from protein, 50% from carbohydrate, and 25% from fat is reasonable and can be healthy, particularly if the focus is on lean animal, fish, and plant-based sources of protein, healthy carbohydrates, and unsaturated fats, as was the case in the protein-rich version of the OmniHeart Diet, which was shown to
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improve heart health. High fat diets such as Mediterranean-style diets and the fat-rich version of the OmniHeart Diet, with a focus on healthy unsaturated fats, have also been shown to improve heart health. The main message here is that the type of each of the macronutrients that you choose is just as important if not more important than their overall proportions in the diet.

Resources
Brief Overview of the OmniHeart Trial Diets (including tips and sample menus)

Having a healthy diet is about more than just calories.

What we eat matters! Food density is a helpful concept to consider when choosing foods. Foods can be classified as either nutrient dense or energy dense.

Some proteins, carbohydrates, and fats are better than others in terms of their nutrient content and health benefits. For example, complex carbohydrates provide more fiber and other nutrients than their simple sugar counterparts.

Food density refers to the level of nutrients in proportion to the number of calories in a food. Nutrient dense foods are relatively high in nutrients and low in calories; fruits and vegetables are great examples. A serving of watermelon and a 12-ounce soft drink both have about 150 calories. However, the watermelon is more nutrient dense, because it has vitamin C and fiber, whereas the soft drink contains only simple sugars or empty calories.

Compared to their more nutrient dense counterparts, energy dense foods provide a lot of calories but relatively few healthful nutrients. They are often refined and high in added sugars or fat. For example, consider a candy bar with 250 calories, 12 grams of fat—4.5 grams saturated—1 gram of fiber, 27 grams of sugar, and 4 grams of protein compared to a dark chocolate almond bar with 200 calories, 15 grams of fat—3.5 grams saturated—7 grams of fiber, 5 grams of
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sugar, and 6 grams of protein.\textsuperscript{6,7} With fewer calories and less saturated fat and sugar, and more fiber and protein, clearly the nut bar is more nutrient dense.

In general, a good strategy for consuming nutrient dense foods is to choose natural, whole foods such as brightly or deeply colored fruits and vegetables, whole grains, lean meats, beans, nuts, and eggs, and limit intake of trans fat, added sugar, and alcohol. That's right, alcohol is energy dense. It has seven calories per gram. In fact, it is the only other thing—aside from protein, carbohydrate, and fat—that contributes to caloric intake, but it's not an essential nutrient.

Fruits and Vegetables
Video Transcript
Mark Pereira: Fruits and vegetables, we all know what they are. Some of us eat them, some of us don’t. They seem to be healthful for you for preventing diseases, and preventing obesity for a number of reasons. They’re loaded with things that are good for us, such as water, such as vitamins and minerals and fiber, but the other thing about fresh fruits and vegetables, is what is not in them. You’re going to get essentially no fat, the sugar you get is not going to be highly processed, so it’s going to be the naturally occurring sugars and it’s not going to be too high in volume. And fruits and vegetables are very low in sodium.

Foods closest to their natural state tend to be the most nutrient dense and healthy.

"Eat food, not too much, mostly plants."

Michael Pollen

Remember: when food is processed, nutrients are often either stripped or broken down. Manufacturers sometimes add back lost nutrients, but not always. This seems counterintuitive. Why not just eat food in its natural state? That way, food components remain intact and you get the benefits of the whole food.

Eating a whole food endows more benefits than extracting its various components and consuming them separately— eating an orange as opposed
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to just taking a vitamin C supplement, for example. Plants contain fiber as well as biologically active components called **phytochemicals**, a general term meaning plant chemical. Phytochemicals are not nutrients in the vitamin and mineral sense. Rather, they are biologically active chemicals produced by plants to protect themselves from enemies such as viruses, bugs, and other things that want to eat them. They can also be quite beneficial to humans. Thousands of them have been isolated and characterized from plants, and some are the basis for many commercial and herbal medications used today for the treatment of a wide range of health problems such as high blood pressure, pain, and asthma.

Some of the more well-known phytochemicals include lycopene in tomatoes, isoflavones in soybeans, and carotenoids in carrots and other orange plants, just to name a few.

Some of these compounds can be isolated and put into pills for preventing or treating disease. However, what remains to be discovered is how the plant chemicals work together as part of the plant’s protective mechanism. If one chemical is isolated and removed, the question still remains about the real benefits humans get from consuming that single chemical.

Remember: humans are meant to eat food, not science. Many health enhancing components of food are still undiscovered. It’s not simply the presence of nutrients that matters for human health, but also the way nutrients or biological components of foods work together to produce health-enhancing effects.

**Resources**


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**Dietary Recommendations**

**Video Transcripts**

Mark Pereira: What we’re trying to do with the dietary recommendations is help people make better choices and have improved behavior in terms of what they’re putting in their mouths, so that they will have better health and live longer. You just sort of have to break it down into what do I like to eat, and what is going to be high quality, and what is going to be good for me. Try to take the approach of pre-planning your diet, planning out your meals, avoiding going out to eat too much, avoiding fast food, a diet based on readily available fresh, tasty plant foods that are minimally processed or appropriately processed. Fruits, vegetables, whole grains, these should be the staple of the diet, and they’re generally low in fat, low in sugar, low in
Dietary Recommendations Video Transcripts Cont’d…

Mark Pereira: ... sodium, so they’re at the opposite end of the spectrum than the fast food diet that, you know, the marketers are all telling us to consume on a regular basis. And then, of course, rounding out the diet with ample amounts of high quality food choices that are going to carry some protein, which is going to be really important, obviously, for healthy bodily function and disease prevention. And it doesn’t have to be animal protein; it could be beans and soy products.

Resources:
Dietary Guidelines for Americans

A useful tool for applying the Dietary Guidelines for Americans and planning a healthy diet that includes adequate amounts of all of the essential nutrients is ChooseMyPlate.gov, developed by the U.S. Department of Agriculture. You can visit the website to access free, interactive tools that will help you create your own personalized dietary plan based on your age, sex, height, weight, and activity level; track your dietary intake and physical activity; and more.

The Harvard Healthy Eating Plate is another really useful resource. It’s very similar to MyPlate but has a few differences, which will be noted throughout the lesson. It’s based on the latest nutrition science and not biased by agriculture and food industry lobbyists.

Resources
United States Department of Agriculture’s MyPlate
Harvard School of Public Health’s Healthy Eating Plate
Side-by-Side Comparison of USDA My Plate and Harvard’s Healthy Eating Plate
Daily Food Plans & Worksheets
Return to page 10 of the online lessons or visit the MyPlate Supertracker directly to create daily food plans.

The various sections of MyPlate represent the food groups that help provide all of the essential nutrients that our bodies need:

- Red: Fruits
- Green: Vegetables
- Purple: Protein-rich foods
- Orange: Grains, and
- Blue: Dairy products

Each section of MyPlate also represents the recommended proportion of food to eat from that food group relative to the other food groups: a quarter grains, a quarter protein, half fruits and vegetables—ideally more vegetables than fruits—and dairy on the side. Note that your meals may not look exactly like this, with each of the food groups separated; the idea is to incorporate these relative proportions of the food groups, even if they are combined into a soup, casserole, salad, or other type of dish. If a dish or meal is missing one or more of the groups, consider how you can balance that out with a side or at your next snack or meal. It’s helpful to get into the habit of asking yourself, what’s missing? Or, what might be overrepresented? Consider what your body needs, and balance eating for nourishment with eating for enjoyment.

ChooseMyPlate also encourages variety. Try to eat foods from all food groups and eat a variety of foods from within each group, too. Be adventurous; try new things. This not only improves your nutrition, but it also makes eating more interesting and fun. For example, consider getting a new fruit, vegetable, grain, nut, or seed that you’ve never tried before every time you go to the grocery store.
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Variety

Video Transcript

Mark Pereira: One of the important things that you want to do to keep your life interesting, and to be happy and healthy, is to have variety, to change around the types of physical activity you’re doing, and to change your diet up. You’re going to get bored if you eat the same things every day. Certainly mix it up and try to keep variety and expand your taste buds, and so forth. You can explore different cultures and different ways of eating to keep it interesting.

Remember: all foods can fit into a healthy diet.

The key is to try not to overindulge in any one food, particularly those high in saturated or trans fats, added sugars, cholesterol, and salt. The same goes for beverages such as alcohol, soda, specialty coffee drinks, and other sugar-sweetened beverages.

Moderation

Video Transcript

Julia: I grew up in a really strict household. My mother didn’t allow me to have pop, candy, fast food, any fried food, no chips, none of that stuff. I wasn’t allowed to have it. So, when I got out on my own, I would go to the cafeteria; of course you can pick whatever you want, and unfortunately there were the fries, there was the cappuccino machine, there was the hot chocolate, there was the pop, there was everything that I wasn’t allowed to have growing up in the household. So, I kind of got a little too happy and I was drinking -- there was this one thing I would drink every day. It was this amazing cappuccino/hot cocoa mix I made, and literally my pants size went up two sizes by the end of a semester. Moderation is the key in life, so I think that was what I learned is moderation.

Vegetables are extremely nutrient dense.

Variety is important here because different vegetables provide different vitamins and minerals. Generally, the darker and brighter in color a vegetable is, the more nutrient dense it is. Shoot for getting at least one serving of dark green or yellow/orange vegetables every day; think spinach, kale, broccoli, sweet potatoes, and peppers. Try to limit your intake of starchy vegetables such as potatoes to no more than one serving per day—or less—because of their high glycemic load, which means they cause a rapid and high increase in blood
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sugar. The Harvard Healthy Eating Plate actually doesn’t count potatoes as a vegetable.9

Note that fresh, frozen, and canned vegetables all count. When using canned, look for the no salt added variety or rinse them to remove some of the excess sodium. You may also want to look for brands that don’t use Bisphenol A—commonly known as BPA—in the can lining. BPA is an industrial chemical in polycarbonate plastics and epoxy resins that are used in many food containers and cans. Some research has shown that it can leak into food and beverages stored in such containers, and it may have negative health effects, though The Food and Drug Administration currently considers it safe at very small levels.

Here are some simple strategies for increasing vegetable intake:

- Have raw veggies with hummus for a snack; it’s pretty convenient!
- Steam frozen or raw vegetables in the microwave—quick and easy!
- Have at least one vegetable at lunch, another with dinner, and another as a snack throughout the day.
- Have a salad or vegetable-based soup for either lunch or dinner.
- Prepare a vegetable-based stir-fry; it’s quick, easy, nutritious, and delicious!
- Add chopped vegetables to pasta sauce or lasagna.
- Add vegetables like spinach, kale, and celery to smoothies.

Resources

Harvard School of Public Health’s Healthy Eating Plate
Summary of Research about Vegetables, Fruits, and Disease
Table of Glycemic Index and Glycemic Load for 100 Foods
Glycemic Index Diet: What’s Behind the Claims?
What is BPA, and what are the concerns about BPA?
Information about BPA from the National Institute of Environmental Health Sciences
Information about BPA from the U.S. Food and Drug Administration:

ChooseMyPlate - Vegetables
Return to page 16 of the online lessons or review the ChooseMyPlate vegetable recommendations directly.
Fruits are another great nutrition bargain.
They provide a variety of nutrients and fiber relative to the number of calories they provide. Some examples of very nutritious fruits are berries and citrus fruits, like grapefruit. Try to include a variety of fruits in your diet instead of always choosing the same ones. As with vegetables, different fruits offer different nutrients.

Some good strategies for increasing fruit intake are to:

- Eat a serving of fruit with breakfast.
- Top cereal, pancakes, or other foods with fruit instead of syrup or other high-sugar toppings.
- Take fruit with you for a healthy snack on the go.
- Add fruit to salads.
- Freeze grapes for a refreshing treat.
- Consider fruit your dessert; it’s naturally sweet!

Any type of fruit is a good choice. Fresh, frozen, canned, and dried fruits all count, but do be careful when choosing canned fruits; buy those canned in their own juice or water as opposed to syrup, or at least choose extra light syrup as opposed to heavy syrup. Check the label on dried fruits, too, as many of them contain added sugar. Be conscious of your portion size. Also, if you drink juice, it’s recommended that you limit your intake to no more than one serving per day, and avoid juices that have a lot of added sugar or artificial flavors. Instead, choose 100% juice.

Resources
Summary of Research about Vegetables, Fruits, and Disease

ChooseMyPlate - Fruit
Return to page 19 of the online lessons or review the ChooseMyPlate fruit recommendations directly.
Many Americans consume enough grains, but they’re often refined versions of grain products, as opposed to whole grains.

MyPlate encourages people to get at least half of their servings of grain from whole grains, as opposed to refined ones, because they are more nutrient dense. Recall that whole grains are those in which all parts of the grain seed—the bran, germ, and endosperm—remain intact. Flours and grain products can be considered whole grain as long as 100% of the original kernel is still present after the grain has been processed—whether it’s been cracked, crushed, rolled, extruded, or cooked.

Some examples of grains include:

- Wild rice
- Brown rice
- Oats, including oatmeal
- Quinoa
- Buckwheat
- Barley
- Amaranth
- Corn, including popcorn
- Rye
- Wheat, including varieties such as spelt, farro, Kamut, and durum and forms such as bulgur and wheatberries

Read food labels to determine whether or not grain products like bread, pasta, and tortillas are made from whole grains. Look for foods that say they are made from 100% whole grains or have whole wheat, whole oats, brown rice, or other whole grains listed first on the ingredient list, and try to choose grain products that have at least three grams of fiber per serving or a carbohydrate to fiber ratio of less than 10:1.
Many Americans consume just grains or primarily grains at meals and snacks, as opposed to complementing them with other food groups like vegetables and protein-rich foods. Yet another large group of Americans have cut out grains altogether. This is a problem because whole grains provide a variety of essential nutrients, and cutting all grains out of the diet may increase the risk of being deficient in things like fiber and B vitamins; plus, it may not be very enjoyable! Even people with celiac disease or severe gluten sensitivity can include grains in their diets; they just need to avoid grains with gluten in them. There are many gluten-free grains; some examples include quinoa, rice, buckwheat, and corn.

**Resources**

- Summary of Research about Whole Grains and Disease
- The Whole Grains Council
- Article and Tips about Gluten-Free Diet

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**ChooseMyPlate - Grain**

Return to page 22 of the online lessons or review the [MyPlate grain recommendations](https://app.choosemyplate.gov) directly.

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**Protein-rich foods include meat, poultry, fish, eggs, beans, nuts, seeds, and some whole grains.**

This is a good thing because it reminds us that there are many sources for protein in our diet. As with all of the other food groups, keep in mind that variety is important. Try different options within the protein food group to improve your nutrient intake and keep things interesting. Also try to spread your protein intake out throughout the day, including some at each meal and most if not all snacks; this will help with feelings of fullness and maximize absorption and utilization.

If you eat animal-based sources of protein, keep the following things in mind to improve the nutrient density of your choices:

- Choose lean meats like chicken and turkey.
- Choose baked or broiled meats instead of fried ones.
- Limit red meat and processed meats such as bacon, sausage, jerky, and luncheon meats, and if you do eat luncheon meats, choose low-fat ones like roasted turkey instead of high-fat ones like bologna or salami.

Red and processed meats have been shown to increase the risk of cancer, heart disease, diabetes, and early death.¹¹,¹²,¹³
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Fish is an excellent choice in the protein category, and it’s recommended that we eat at least two servings of fish rich in omega-3 fatty acids—for example, salmon, lake trout, and tuna—each week because it’s been shown to benefit heart health.\textsuperscript{14,15} While it’s possible to get omega-3 fatty acids from other food sources, such as flaxseed and walnuts, fish appears to offer the most benefit in terms of heart health. It’s recommended that young children and women who are pregnant, breast-feeding, or trying to become pregnant limit their intake of fish high in mercury; swordfish and canned tuna are examples. Salmon is an excellent choice all around because it’s high in omega-3 fatty acids and low in mercury.

\textbf{Resources}

\begin{itemize}
  \item \textit{Summary of Research about Protein and Disease Article: Omega-3 in Fish: How Eating Fish Helps Your Heart}
  \item \textit{Environmental Working Group’s Consumer Guide to Seafood}
  \item \textit{Environmental Defense Fund’s Seafood Selector: Eco-Friendly and Healthy Farmed or Fresh Fish: Which is Healthier?}
  \item \textit{American Institute for Cancer Research: Information about Grilling and Cancer and Tips to Decrease Risk}
  \item \textit{Is charring meat on the grill a cancer danger? (includes tips to decrease risk)}
\end{itemize}

Eggs have gotten a bad rap over the years due to the cholesterol contained in their yolks, but researchers of several studies and meta-analyses have concluded that there is no evidence for an association between average consumption of up to one egg per day and heart disease among the general population.\textsuperscript{16,17,18} This is good news because eggs are an excellent and inexpensive source of protein, B vitamins, choline, and other essential nutrients. It may very well be that consuming more than one egg per day is perfectly safe, but unfortunately there is insufficient data available in the current literature to draw clear conclusions on intakes higher than one egg per day. Further, the available research does not clearly distinguish between or make recommendations about whole eggs vs. egg yolks and whites. Finally, note that there does appear to be a positive association between egg consumption and cardiovascular disease risk among people with type 2 diabetes, but the extent of and mechanisms behind this risk remain unclear and further research is needed. It also remains unclear whether or not egg
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consumption may contribute to or is protective against the onset of type 2 diabetes.\textsuperscript{19,20} The Harvard School of Public Health advises people with diabetes or heart disease to limit their intake of egg yolks to no more than three per week.\textsuperscript{21}

Finally, don’t forget that there are many excellent plant-based sources of protein, including beans, nuts, seeds, and even some grains such as quinoa and amaranth. Nuts—walnuts and almonds, for example—are high in calories, but the fat is polyunsaturated and they are packed with other nutrients, so they are a great choice; just keep an eye on portion size. Other meat alternatives include tofu, tempeh, mock duck—also known as seitan—and textured vegetable protein. It’s not necessary to eat a lot of meat, or any for that matter, to meet protein requirements or even achieve a high protein diet, if that’s desired. It’s also worth noting that moderating our consumption of animal products is good not only for our health, but the environment, too.\textsuperscript{22}

\textbf{Resources}

- Health.com Slideshow of Vegan and Vegetarian Protein Sources
- Recipes for Plant-based Sources of Protein I
- Recipes for Plant-based Sources of Protein II
- Recipes for Beans

\textbf{ChooseMyPlate – Protein Foods}

Return to page 25 of the online lessons or review the \textit{MyPlate protein recommendations} directly.

\textbf{MyPlate recommends that we all try to get two to three servings of dairy products per day, primarily for their high calcium content.}\textsuperscript{6}

Dairy is also a good source of protein. Greek yogurt is a particularly good choice compared to other yogurts because it’s much higher in protein. It’s a good idea to choose plain yogurt because flavored yogurts tend to be very high in sugar; you can flavor plain yogurt yourself by adding some fruit and perhaps even a small amount of honey or pure maple syrup, for example. It can also be used as a substitute for sour cream when making vegetable dips.

Try these tips for meeting the dairy recommendation:

- Include milk as a beverage at meals.
- Use milk instead of water to prepare oatmeal or other hot cereals.
- Put yogurt in smoothies.
- Top casseroles, soups, or vegetables with shredded cheese.
Maybe you or someone you know has lactose intolerance. Eating and drinking dairy products can cause stomach upset and other symptoms for people who are lactose intolerant because they produce insufficient amounts of lactase, the enzyme that helps digest lactose—milk sugar. Some suggestions for people who are sensitive to lactose are to:

- Consume only a small amount of dairy at a time.
- Choose fermented dairy products, such as yogurt, cottage cheese, or aged hard cheeses, which are generally more tolerable because the bacteria used to ferment them have already digested much of their lactose.
- Buy lactose-free dairy products or ones that have lactase added to them—for example, Lactaid.

If you’re lactose intolerant, vegan, or want to avoid dairy for any other reason, sufficient calcium can be consumed in other ways. Fortunately, many foods are high in calcium, including:

- Firm tofu
- Edamame—immature soybeans still in the pod
- White beans and black-eyed peas
- Canned salmon and sardines
- Kale, collard and turnip greens, broccoli, bok choy, and seaweed
- Dried figs
- Almonds
- Oranges
- Blackstrap molasses

Additionally, many products are fortified with calcium, including soy, rice, and nut milks, orange juice, and breakfast cereals; just check the label to make sure you’re choosing one that’s fortified.

Note that the Harvard Healthy Eating Plate recommends we limit our dairy intake to no more than one to two servings a day because intakes above that may increase the risk of prostate, ovarian, and other hormone-related cancers, though further research is needed.23,24,25

Resources
National Dairy Council
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Information about Lactose Intolerance
14 Non-Dairy Foods High in Calcium – Slideshow

ChooseMyPlate - Dairy
Return to page 27 of the online lessons or review the MyPlate dairy recommendations directly.

Resources
14 Non-Dairy Foods That are High in Calcium

Remember: fat is an essential nutrient that provides essential fatty acids and fat-soluble vitamins, and it’s recommended that it make up 20-30% of our total daily calories.

But, it’s important to pay attention to the type of fat we consume. It’s recommended that we limit our intake of saturated fat to less than 7-10% of our total calories, and avoid trans fats altogether.\(^\text{26,27}\) Fortunately, due to pressure from public health organizations, consumers, and the Food and Drug Administration, many food manufacturers and restaurants have stopped using partially hydrogenated oils. However, until they are banned, it’s important to check food labels. We want to get fat from healthy unsaturated sources, ideally consuming a relatively low ratio of omega-6 to omega-3 fatty acids. The Harvard School of Public Health recommends we eat at least one good source of omega-3 fatty acids each day.\(^\text{28}\) As mentioned before, fatty fish like salmon is an excellent source of omega-3 fatty acids. Plant-based sources include walnuts, flaxseed, chia seed, hemp seed, leafy greens, soybeans and other beans, winter squash, and members of the cabbage family such as cauliflower.

Some suggestions for healthy fat intake include:

- Avoiding trans fats such as stick margarine, shortening, or lard;
- Avoiding sunflower, corn, soybean, and cottonseed oils, which are high in omega-6 fatty acids and instead choosing olive, flaxseed, or canola oils, which have a better fat profile;
- Eating fatty fish and plant-based sources of protein often;
- Limiting consumption of red and processed meats, cream, ice cream, and baked goods made with partially hydrogenated oils;
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- Choosing foods that are steamed, baked, or broiled instead of fried; and
- Choosing foods that are naturally low in fat as opposed to low, reduced, or non-fat food products, which tend to be quite high in sugar because manufacturers often replace the fat with sugar or refined carbohydrates.

Be sure to check the nutrition facts panel and list of ingredients to get a better sense of the overall nutritional composition of the food.

**Resources**
- Fats & Cholesterol
- Fat Facts and Relationship to Health and Disease
- Know Your Fats
- Tips for Cooking with Fats and Oils

**Sodium is an essential mineral needed for muscle and nerve activity.** It helps maintain the right acid-base balance in body fluids and an appropriate amount of water in blood and body tissues. Adequate intake of sodium for young adults is 1500 mg per day.\(^{29,30}\) Not getting enough sodium in the diet can lead to headaches, weakness, muscle cramps, and swelling. Sodium deficiency is rare in Americans, however. Many Americans consume way more sodium than is necessary, despite the fact that very few foods contain much sodium naturally. Most of the sodium in a typical American diet comes from highly processed food. **Processed food** is any food that has been altered by a food manufacturer. Examples of processed foods that are particularly high in sodium include things like frozen meals, boxed mixes, canned soups, snack foods, salad dressings and other condiments, and cheese—particularly American cheese. Another common source of sodium in the diet is table salt, which is about 40% sodium and 60% chloride.

Getting too much sodium in the diet is associated with high blood pressure, heart disease and stroke, kidney problems, stomach cancer, and even bone loss and osteoporosis.\(^{27,28,31}\) The upper limit for sodium is 2300 mg, and it’s therefore recommended that we limit our intake to no more than 2300 mg per day; individuals with high blood pressure, diabetes, or chronic kidney disease,
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African Americans, and people over the age of 50 are at particularly high risk for developing health problems associated with high salt consumption, so it’s recommended they limit their sodium intake to no more than 1500 mg per day. The American Heart Association actually recommends that all Americans limit sodium consumption to 1500 mg per day. Note that restricting sodium may be counter-productive for some athletes; if you’re an athlete who sweats heavily, we suggest you consult a dietitian to discuss your particular needs.

We encourage you to start checking the sodium content on food labels, if you don’t already; you’ll likely be surprised at how much sodium is in some food products. Look for low sodium, no salt added, or salt free varieties when buying soups and other canned or processed foods, and remember: whole foods like fruits and vegetables are naturally low in sodium, so they’re an excellent choice! Also be mindful of the amount of salt you may be adding during food preparation or at the table. If you want to reduce your salt intake, consider seasoning your food with natural herbs and spices, a salt substitute, or a salt-free seasoning.

Resources
- Information about Sodium from the American Heart Association
- Debate over Sodium Recommendations
- Information about the Institute of Medicine’s Report on Sodium Recommendations

While it’s normal to crave sweets with added sugar, it’s best to limit their intake because they are energy dense, not nutrient dense.

For instance, think of licorice: lots of sugar and not much else. Some people claim that high-sugar foods give them energy. This might be somewhat true in the short run, but remember that consumption of high-sugar foods is generally followed by an eventual sugar crash, resulting in sleepiness and low energy—an unpleasant rollercoaster ride. Also, keep in mind that eating high-sugar foods, particularly those that stick to the teeth, is a risk factor for tooth decay—yet another good reason to limit their intake.

To reduce sugar consumption:
- Choose water or unsweetened tea or coffee as a beverage instead of soda or other sugar-sweetened beverages.
- Limit intake of snacks and desserts made with added sugar; choose fruit instead.
- Choose breakfast cereals and bars carefully; check and compare food labels.
Sleep, Eat & Exercise

Note that some foods high in sugar are also high in unhealthy fats—for example, cake, cookies, pie, candy bars, and ice cream. So, they give you a double whammy of empty calories. Having and enjoying some of these things sometimes is part of a healthy diet, but the point is to keep their intake relatively low compared to the wide variety of nutritious foods that our bodies need.

**Resources**
- List of Relatively Healthy (low-sugar) Cereals
- List of Relatively Healthy (low-sugar) Granola Bars

In an attempt to avoid or reduce sugar intake, many people have turned to artificial or high-intensity sweeteners, non-caloric or low-calorie alternatives to real sugar.

The Food and Drug Administration—FDA—has approved six of them: saccharin, aspartame, sucralose, neotame, advantame, and acesulfame potassium—also known as Ace-K. What has made artificial or high-intensity sweeteners so attractive is that they are generally much sweeter than naturally occurring sugars, which means less needs to be used to make foods sweet, and they don’t raise blood sugar. The downside is that none of them tastes quite like real sugar, and some of them can’t be used for cooking or baking. Further, despite their approval by the FDA, there is ongoing debate about whether or not they contribute to increased risk for cancer, obesity, or other health problems.

Stevia, an herb found in Central and South America, has become a popular all-natural sugar alternative. While the FDA has not approved whole-leaf and crude forms of stevia, it has not objected to the use of highly purified steviol glycosides obtained from stevia leaves. To see if a product is made with stevia, check the ingredient label for: stevia, stevia extract, stevia leaf extract, rebaudioside A, Reb A or steviol glycosides. Stevia in the Raw®, Truvia®, and SweetLeaf® are examples of Stevia-based sweeteners.

Sugar alcohols such as xylitol, sorbitol, mannitol, lactitol, erythritol, and maltitol are actual sugar molecules with an alcohol group on them. Note that this is not the same type of alcohol as what’s found in alcoholic beverages. Like other sugars, sugar alcohols are sweet. However, they provide fewer calories than regular sugar and are converted to glucose more slowly, which means they don’t cause sudden spikes in blood sugar like regular sugar does. Further, they don’t contribute to tooth decay like regular sugar does and are therefore commonly used in gums and candies. A downside of sugar alcohols is that they can cause bloating and diarrhea if consumed in large amounts.

**Resources**
- Artificial sweeteners and other sugar substitutes
- Are artificial Sweeteners Safe?
- The Evidence Supports Artificial Sweeteners over Sugar
Do you think about what you drink?
If not, we encourage you to do so. Many beverages contain empty calories and unnecessary caffeine. Soda, energy drinks, mochas and other specialty coffee drinks, lemonade, and fruit punch are all examples of beverages that are high in calories and sugar, and sometimes unhealthy fats, without offering any real nutritional value. They are certainly energy dense—not nutrient dense. Even diet soda isn’t as healthy as plain water, given the added caffeine in it and potential side effects of artificial sweeteners.

Thus, try to limit your intake of these drinks and, when you do have them, be sure to consider them in the context of your overall daily caloric intake. If you drink juice, choose 100% citrus juice—like orange or grapefruit—or another 100% juice that’s been fortified with Vitamin C. If you drink coffee, consider having it black as opposed to adding cream, and reserve specialty coffee drinks for an occasional indulgence. Your wallet will thank you, too.

If you drink alcohol, also give that some consideration. Remember: alcohol is energy dense—not nutrient dense—and can result in negative consequences if used irresponsibly. If you do choose to drink alcohol, the Surgeon General and Dietary Guidelines recommend consuming it in moderation.\(^43\) This means no more than one drink per day for women and two drinks per day for men.\(^43,44\) A standard drink is defined as 12 oz. of beer, 8-9 oz. of malt liquor, 5 oz. of wine, or 1.5 oz of 80-proof liquor.\(^45\) Each of these generally provides about 100-150 calories, but note that mixed drinks may contain more depending on what’s mixed with the alcohol.\(^44\) Also note that, while alcohol is a liquid, it has a dehydrating effect. And keep in mind, if you’re under 21, it’s illegal to consume any amount of alcohol.

All things considered, water is the body’s best fluid replacement.
Water is an essential nutrient, and carrying a water bottle with you throughout the day can be helpful toward maintaining hydration.

For economic and environmental reasons, we suggest that you purchase a reusable water bottle that you refill throughout the day as opposed to repeatedly buying and using disposable plastic bottles—even if you do recycle them. If you buy a plastic reusable bottle, we recommend that you choose one that’s BPA-free. Bottles made from stainless steel and glass are good options, too.

While there are many claims that bottled water is better than municipal tap water, that’s not usually true. The bottled water industry creates demand for its product through use of marketing which attempts to persuade consumers that bottled water is purer and healthier than tap water, even though the U.S. federal government requires more rigorous safety monitoring of municipal sources of tap water than it does of bottled water.\(^{46, 47}\) Another difference—one probably important for most college students—is that bottled water costs more. It’s also worse for the environment. The production and transportation of bottled water uses up to two thousand times more energy than treatment of tap water, and on top of all this, 3/4 of PET water bottles are not recycled and end up in landfills.\(^{48}\) PET stands for polyethylene terephthalate, which is a clear, shatterproof plastic that’s designated with the recycling number 1. While bottles and other food containers made of PET are considered safe and approved by the U.S. Food and Drug Administration, they are meant for single use. Studies have found PET and the toxin DEHA in water samples from
reused water bottles made from PET. So, if you do buy bottled water, you should recycle the bottle after its first use and not reuse it. Ultimately, when it comes to deciding between bottled and tap water, filling your own reusable bottle with tap water is a good choice.

Resources
- BPA Facts from the National Institute of Environmental Health Sciences
- BPA Facts from the U.S. Food and Drug Administration
- What is BPA, and what are the concerns about BPA?

The recommendation for fiber is 38 g per day for adult males and 25 g per day for adult females. Fiber is important for good health and fortunately is contained in many of the food groups. Here are some suggestions for incorporating high-fiber foods into your diet:

- Start your day with a whole grain like oatmeal or quinoa or a high-fiber breakfast cereal—one that offers 5 or more grams of fiber per serving, and ideally less than 5 grams of sugar.
- Eat at least one vegetable or fruit at every meal. Apples, bananas, oranges, pears, and berries are good sources of fiber, as are artichokes, peas, spinach, beets, Brussels sprouts, and carrots, just to name a few.
- Eat more beans, lentils, nuts, and seeds. For example, add lentils to canned soup, nuts to a salad, or black beans to nachos.
- Choose whole-grain breads, pastas, and other grain products as opposed to their refined counterparts. Look for products that have at least three grams of fiber per serving or a carbohydrate to fiber ratio of less than 10:1.
- Make snacks count. Fresh and dried fruit, raw ready-to-eat vegetables, nuts, and plain popcorn are all good choices.
- Incorporate ground flaxseed or wheat germ by sprinkling it on cereal, mixing it into yogurt, or adding it to homemade baked goods.
- Substitute whole-grain flour for half or all of the white flour when baking.
- If you drink citrus juice, buy a medium or high pulp version.
Sleep, Eat & Exercise

While it’s important to get enough fiber, and for many this means increasing intake, note that a large, abrupt increase in fiber intake can lead to unpleasant gastrointestinal distress—gas, bloating, and potentially diarrhea. To avoid these consequences, it’s important to increase fiber consumption gradually so that the body has a chance to adjust. It’s also important to drink an adequate amount of water to avoid constipation. Finally, note that many food manufacturers add inulin to products; this is a type of insoluble fiber that can cause bloating, abdominal cramping, gas, and loose, frequent stools in some people.  

Resources
Chart of High-Fiber Foods

It’s ideal to get the nutrients we need from our food rather than from pills or powders.

Remember, the various components of whole foods interact in ways that can’t necessarily be replicated in supplements, and scientists haven’t even identified or figured out how to extract all of those components yet.

Oddly, and unfortunately, dietary supplements and herbal remedies are not reviewed and approved for safety and effectiveness by the Food and Drug Administration before they are marketed to consumers because they are not drugs. Supplement manufacturers are required to have evidence that their product is safe, and they are supposed to follow labeling guidelines to avoid misleading consumers with claims on their labels, but unfortunately, unbiased scientific evidence for many dietary supplements and herbal remedies is severely lacking, as is their regulation. Some supplements and herbal products have been found to contain things that aren’t on the ingredients list—contaminants and fillers—and some don’t actually include what they claim to offer, meaning that they’re impure and their labels inaccurate; even more concerning is that some of their components are actually toxic and pose health risks to consumers.  

It’s generally recommended to stay away from herbal remedies and megavitamin supplements. Many herbal remedies contain ingredients that have not been adequately tested for safety and effectiveness, and remember, most of the vitamins and minerals have upper limits, which means that we need to avoid getting too much of them. A good way to get enough but not too much is to focus on
eating a balanced diet that incorporates a variety of foods from all of the food groups. That said, some individuals—such as pregnant women, people with certain medical conditions, and those who for whatever reason aren’t getting what they need from their diets—may need to supplement. Some health professionals actually recommend that everyone take a basic multivitamin and mineral supplement as a sort of insurance because so many Americans are not consuming adequate amounts of a number of micronutrients—including calcium, magnesium, iron, and vitamin D, for example. Other reasons include soil depletion and the fact that so many of our fruits and vegetables are picked before peak ripeness. But, it’s not an official recommendation and continues to be debated.

If you think you may benefit from a dietary supplement, talk to a dietitian, physician, pharmacist, or other trusted healthcare provider who can help you determine if it’s really necessary—after all, why spend money on something you don’t need? If you’re going to take a supplement, we recommend that you avoid taking more than 100% of the RDA—particularly of the fat-soluble vitamins—and that you choose a brand that has a seal of approval from U.S. Pharmacopeia, ConsumerLab.com, or NSF International. These organizations offer quality testing to help assure consumers that the product was manufactured properly, contains the ingredients the label says it does, and does not contain harmful levels of contaminants.

Finally, note that dietary supplements may interact with certain medications, so it’s particularly important that you discuss your use of them with your healthcare provider if you take any medications. They can also interact with each other, so if you happen to take more than one it may be best to take them at different times throughout the day.

Resources
National Institutes of Health Office of Dietary Supplements
Dietary Supplement Warnings and Consumer Updates from the U.S. Food and Drug Administration
ConsumerLab.com
U.S. Pharmacopeia
NSF International
The Best Multivitamins and What They Should Contain
Tips for Dietary Supplement Users
Should I Take a Multi-Vitamin?
Video about Storing Vitamins Properly
What’s Really in Herbal Supplements? (video)
So, at this point you may be wondering, what is the best diet for overall health?

Well, Katz and Meller tackled this question in a mammoth literature review and concluded that, “a diet of minimally processed foods close to nature, predominantly plants, is decisively associated with health promotion and disease prevention.” After carefully reviewing the health outcomes of a wide range of diets and dietary patterns, the take-home message from Katz and Meller’s review is that there is no one healthiest diet. A healthy diet is not based on a rigid or prescribed set of rules. Rather, it’s a general dietary pattern characterized by:

- mostly plants including fruits, vegetables, whole grains, nuts, seeds, beans, and legumes;
- healthy fats like olive and canola oils;
- fish—particularly fatty fish—and other seafood, and moderate amounts of lean meat, poultry, and dairy, if desired; and
- limited trans and saturated fats, simple sugars, refined starch, and processed foods.

This dietary pattern is consistent with a Mediterranean-style diet, which has been associated with increased longevity and preserved cognitive function and decreased risk for obesity, metabolic syndrome, cardiovascular disease, cancer, and potentially neurodegenerative disease, inflammation, and asthma. It’s also consistent with the Diabetes Prevention Program, which showed a decreased incidence of type 2 diabetes, and the DASH and OmniHeart diets, which reduced blood pressure, total and LDL cholesterol levels, and estimated coronary heart disease risk. Katz and Meller also noted that vegetarian and vegan diets, when carefully constructed to ensure adequate intake of all essential nutrients, have been associated with health benefits related to, for example, overall diet quality, inflammation, cardiovascular disease risk factors, cancer risk, body composition, and insulin sensitivity.

Further, Katz and Meller noted that an authentic Paleolithic diet—characterized by a focus on fruits, vegetables, nuts, seeds, eggs, and lean meats, and avoidance of processed foods—has been shown to be better in terms of body composition and metabolic health compared to the typical Western diet, which is high in saturated and trans fats, added sugars, sodium, and processed foods. However, the Paleo way of eating cuts out all grains, including whole grains; keep in mind that whole grains have been associated with better overall diet.
quality, better weight management, decreased cancer risk, and improvement in other chronic disease risk factors. Unfortunately, many people who attempt or claim to follow a Paleo diet don’t actually do so; rather, they consume a largely meat-based diet, which is not in line with Katz and Meller’s conclusion that a heavily plant-based diet is ideal. Finally, a recent study by De Souza, Swain, Appel, and Sacks that compared a handful of popular diets and the OmniHeart diets to the Food and Nutrition Board’s acceptable macronutrient distribution ranges—AMDRs—concluded that the Zone and South Beach diets, in addition to Mediterranean-style diets, while technically outside the current AMDRs for fat and/or carbohydrate, are similar in concept to the protein- and fat-rich OmniHeart diets and may offer similar health benefits related to heart disease, diabetes, and cancer risk.4

Again, having a healthy diet is not about following a specific diet or set of rules; it’s about incorporating the healthy dietary pattern outlined above into your lifestyle, depending on your individual needs and goals.

**Resources:**
- Brief Overview of the OmniHeart Trial Diets (including tips and sample menus)
- Mediterranean Diet
- Harvard School of Public Health’s Healthy Eating Plate

**While this lesson has outlined the general characteristics of a healthy diet, it’s important to recognize that a healthy diet for one person may not look the same as a healthy diet for another.**

Sometimes certain health conditions require a deviation from what is generally considered healthy. For example, celiac disease requires the avoidance of gluten-containing grains and products and lactose intolerance requires the avoidance of many dairy products. Other conditions that may not be as serious as something like celiac disease, but are quite common and certainly a concern for individuals who suffer from them, include things like irritable bowel syndrome (IBS) and gastroesophageal reflux disease (GERD). It’s important to know that these conditions can often be treated effectively by dietary changes or other lifestyle modifications, such as improved sleep and stress management. If you regularly experience gastrointestinal distress—abdominal cramping or pain, bloating, diarrhea, constipation, or heartburn, for example—and particularly if it interferes with your functioning and quality of life, it’s worth meeting with a trusted healthcare provider to discover the problem and learn how to address it.

**Resources**
- Normal Bowel Movements
- The Scoop on Poop

**A Healthy Diet**
Now that we’ve defined a healthy diet from a nutritional standpoint, we’ll turn our attention to other aspects of a healthy diet, including when, why, and how we eat, and what it means to have a healthy relationship with food.

Let’s start with meal frequency. It’s widely believed and promoted that eating frequently throughout the day—for example, four to five meals or snacks, including breakfast—is ideal for appetite control, weight management, and metabolic health; however, this is based largely on observational data and professional practice. According to recent intervention studies included in a comprehensive literature review done by a team of researchers led by Amy Hutchison, this eating pattern—frequent meals—may not actually be superior to eating fewer—for example, two to three—times during the day, particularly if consuming frequent meals and snacks leads to over-consumption of total calories. Clearly, more research is needed to determine optimal meal frequency. In the meantime, we recommend consuming regular meals that honor your hunger cues and total calorie needs, and consuming a majority of your calories during the day as opposed to during the evening or nighttime hours, as restricting caloric intake to the evening hours has been shown to be detrimental to metabolic health.

When, what, and how much we eat depends, in large part, on appetite and satiety.

Of course, time, money, convenience, emotions, and social activities can also play a role.

Appetite represents the desire to eat food. It can be physical or psychological. The physical desire to eat is experienced as hunger. If we’re hungry, our stomachs growl or hurt to signal that we should eat something. We might get light-headed or even grumpy if we haven’t eaten for a while. We probably can’t concentrate...
very well, either. After eating, hunger pangs and the growling stomach should go away. Sometimes our desire to eat certain foods has nothing to do with whether or not we’re actually hungry. We might have a craving for chocolate, bananas, pickles, or macaroni and cheese, for example. Or, we may think we’re hungry when we’re actually thirsty. Appetite is driven by our past experiences and is a powerful motivator to eat, even when we’re not hungry.

**Satiety** is the feeling of fullness or satisfaction after we eat. Infants and toddlers are generally very good at listening to their body’s natural satiety cues and stopping eating if they are full. Unfortunately, many adults are not so good at this; they’ve been influenced by social and environmental factors that encourage ignoring these natural cues. Like appetite, satiety is both physical and psychological.

**Many people don’t recognize—or choose to ignore—their natural cues for hunger and satiety.**

Maybe they skip breakfast and lunch and wait until the end of the day to eat, which could be an example of ignoring hunger. Or, maybe they eat so much that their stomach is over-full and actually aches; this is an example of ignoring satiety.

Why is this? Some potential reasons include:

- Being encouraged or feeling the need to finish everything that’s on the plate
- Being rewarded with food for accomplishments
- Having an irregular meal and snack routine growing up
- Being served and consuming large portion sizes
- Living in an environment where food is constantly available or being in a situation where it’s not consistently available
- Having a history of restrictive dieting or growing up in a family where food restriction was common

Familial, social, and environmental experiences like these train our appetite over time. If we continuously ignore our physical hunger and satiety cues over time, we gradually lose the ability to recognize when we are truly hungry or full. This in turn affects when and how much we eat.
Sleep, Eat & Exercise

Asking ourselves a series of questions about our eating behavior—outlined by Rebecca Johnson, in her presentation, "Eat what you love, love what you eat”—can help us assess our relationship with food.57

- Why do I eat?
- When do I feel like eating?
- What do I eat?
- How do I eat?
- How much do I eat?
- Where or how do I invest my energy?

Johnson noted that people who are in what’s considered an instinctive eating cycle generally eat for fuel when the body is hungry, eat whatever they choose—taking into consideration what they want and what their body needs—eat intentionally and mindfully, eat just enough to satisfy hunger—and simply notice, let go and move on if they do occasionally overeat—and use the energy from the food they’ve consumed to enjoy a full, active life.

In contrast, Johnson pointed out that people in an overeating cycle generally eat based on external or emotional cues—because they’re stressed, bored, or fatigued, for example, or simply because the food is available or others are eating—regardless of whether or not they’re actually physically hungry.57 They are apt to choose tempting or comfort foods and may eat fast, on-the-go, mindlessly, or perhaps even secretly. They tend to eat until the food is gone or to a point of physical discomfort, as opposed to stopping when comfortably full and satisfied; they may not even be able to recognize their body’s hunger and fullness cues and may never really feel satisfied. They end up consuming more than their body needs and this excess fuel gets stored in the body.

According to Johnson, another common cycle is the restrictive eating cycle. People in a restrictive eating cycle generally eat according to rules they’ve adopted about when, what, and how much to eat.57 For example, they may follow a specific diet and eat according to whatever rules the diet indicates. They may eat on a very specific schedule and focus more on the clock than on their body’s actual hunger cues. They’re likely to eat only what they consider to be good foods that are allowed by the diet—avoiding those that are considered to be bad. They may count, weigh, or measure all of their food, eating only the amount that’s prescribed by whatever diet or set of rules they’ve chosen to follow. This amount of food may be how much the body needs, but it may also be not enough or too much. People in a restrictive eating cycle are generally disconnected from their body’s cues or choose to ignore them because they’re eating according to rules as opposed to listening to what their body is telling them. If they eat what they consider to be too much or a food that’s not allowed, they’re likely to feel guilty. They tend to focus a lot of time and energy on managing their diet and may be very preoccupied with food.
They’re also likely to spend their energy on exercise, but as opposed to exercising for enjoyment and taking care of the body, they’re likely to view it as a chore, a way to earn the right to eat more, or punishment for eating too much. Their exercise is generally very regimented and focused on burning calories.

Finally, Johnson noted that people aren’t necessarily in only one of these cycles all of the time. It’s actually quite common for people to yo-yo between the restrictive and overeating cycles—sometimes over a period of time, but sometimes within the same day or even within the same meal. This can lead to weight cycling, disordered eating, and a decreased sense of wellbeing and quality of life. She concluded that a healthier place to be is the instinctive—otherwise known as mindful—eating cycle.

**Resources**

- [Am I Hungry? What is Mindful Eating](#)

**While it’s generally recommended and beneficial to eat regular meals and snacks throughout the day, it’s important to pay attention to how our bodies feel in addition to paying attention to the clock.**

Get into the habit of asking yourself, “am I hungry?” and “hungry for what?” Try to focus on eating when you’re hungry, eating slowly, and stopping when you’re full. Listening to your body is a valuable skill to develop. Keeping in mind the BASICS of mindful eating can help:

- Breathe and do a belly check for hunger and satiety before you eat. How hungry are you? What are you hungry for? Are you not actually hungry at all? Consider whether you may be thirsty, tired, or stressed.
- Assess your food with all of your senses. How does it look, smell, and taste? Notice its texture. Consider where it came from. Is it what you really want?
- Slow down. Notice each bite and pause between bites.
- Investigate your hunger throughout the meal. Stay present to the food and to your body’s cues. Note that it’s OK to stop eating when you feel full or become disinterested in the food, even if what’s on your plate isn’t gone.
- Chew your food thoroughly.
- Savor your food. Enjoy the food and the experience of eating it.

Notice that the BASICS of mindful eating involve being present to your body and to the food itself. It’s the opposite of mindless eating. It’s paying attention to what you’re eating while you’re eating it, as opposed to eating mindlessly while on-the-go, sitting in front of the TV or computer, or doing homework, for example.
What does it mean to have a healthy relationship with food?

**Video Transcript**

Marya Hornbacher: A healthy relationship with food really means you can enjoy it. That means not eating too much, not eating too little, not controlling what you eat by feeling that you have to only eat this particular kind of food. An unhealthy relationship with food is one where we’re thinking too much about it, or not thinking enough about it.

Marya Hornbacher: When we hear healthy eating, we hear low-fat, low-cal, low-cholesterol. And sometimes that’s true, sometimes that’s accurate. Healthy is also a psychological state about eating, and psychologically, we need to feel okay about eating. We need to feel like it’s not a crime. The important thing is listening to your body and then also just letting yourself enjoy food.

**Resources**

- Tasting Mindfulness BASICS of Mindful Eating
- Center for Mindful Eating Principles of Mindful Eating Handout
- Mindful Meeting Marathon Infograph
- Awareness Checklist
- 40 Mindful Eating Mantras
- Mindful Eating-O-Meter
- Mindful Eating Quiz
- Mindful Eating iPhone App Instructions (Video)
- Am I Hungry? What is Mindful Eating?

**Suggest Readings**

- Eat What You Love, Love What You Eat: A Mindful Eating Program to Break Your Eat-Repent-Repeat Cycle by Michelle May, MD:
- Eating Mindfully: How to End Mindless Eating and Enjoy a Balanced Relationship With Food by Susan Albers, PsyD, and Lilian Cheung, DSc, RD:
- Every Bite Is Divine by Annie Kay, MS, RD, RYT:
- Intuitive Eating: A Revolutionary Program That Works by Evelyn Tribole, MS, RD, and Elyse Resch, MS, RD, FADA:
- Mindful Eating: A Guide to Rediscovering a Healthy and Joyful Relationship With Food by Jan Chozen Bays, MD:
- Savor: Mindful Eating, Mindful Life by Thich Nhat Hanh and Lilian Cheung DSc, RD:
- Mindless Eating: Why We Eat More Than We Think by Brian Wansink, PhD:
What does it mean to have a healthy relationship with food? Video Transcript Cont’d...

Dianne Neumark-Sztainer: We want to be making healthy food choices. But eating a healthy diet means also having some unhealthy foods within it. I strongly believe that. I think that we really want to learn to incorporate cakes, cookies, ice creams, whatever it is, into our eating plans, but make them the accessory and not the mainstay. Really, the essence of food is to keep us alive, to keep us healthy, and to be enjoyed. To be enjoyed with friends, family, and when we’re by ourselves.

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A Healthy Diet


Sleep, Eat & Exercise


