



KEYS TO EMBRACING AGING

Eating Smart and Healthy

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Eating is an activity that most of do at least three times a day. We eat because food appeals to our taste buds. We eat because it is a social activity. We also eat because food is good for us. Eating provides our body with energy so that we can breathe and function. It also has an impact on our overall health. Nutritious foods, combined with physical activity, help us maintain a healthy body and protect us against various illnesses, disorders and chronic conditions, such as heart disease, stroke, type 2 diabetes, bone loss, cancer, dementia and obesity (CDC, 2011; USDA, 2011). Diet and nutrition can also help reduce high blood pressure, lower cholesterol, manage arthritis, maintain healthy skin, hair and nails, and manage diabetes (USDA, 2014). It is never too late to start eating well. Smart, nutritious eating contributes to health and well-being at any age.

HOW TO EAT SMART AND HEALTHY

Examine your relationship with food.

- **Find healthy alternatives.** Do you turn to unhealthy foods when you are stressed? If so, find a substitute food or activity. For example, instead of grabbing a candy bar to de-stress, eat a carrot, go for a walk or call a friend to relieve the stress.
- **Think of food in terms of nutrition.** Are you eating because you are hungry, need the energy, you are bored or because you are in a social setting? Instead of eating just to eat, think about food in terms of what it does to keep your body healthy and functioning. Before you eat that cookie, ask yourself if it will help your body function better.
- **Seek help if you have an unhealthy relationship with food.** Are you an emotional eater, turning to food when you are stressed out, angry or sad? Do you withdraw from food as a way to maintain control? Unhealthy food relationships are destructive both mentally and physically and can cause severe long-term health problems. Overeating and undereating are eating disorders classified and treated as mental health illnesses. Unhealthy relationships with food occur for a number of reasons including genetic predisposition, societal pressures on appearance, body image and poor diet practices (Eating Disorders Coalition, 2008). Professionals, such as therapists/counselors, medical providers, nutritionists and university health services, can help you work through the problem or prescribe the appropriate care. Unhealthy food relationships are treatable.

Eat a variety of nutritious foods.

It is important to eat a variety of nutritious foods from all of the food groups. The United States Department of Agriculture's (USDA) newest nutrition guide is called MyPlate. MyPlate reinforces that a well-balanced, well-portioned meal should include approximately 30 percent grains, 30 percent vegetables, 20 percent fruits and 20 percent protein, in addition to a small portion of low-fat dairy, such as a cup of low-fat/nonfat milk or a cup of yogurt. MyPlate also recommends reductions in sodium and sugar intake.

- **Fruits and vegetables** – The USDA recommends filling half your plate with fruits and vegetables (USDA, 2011). Fruits and vegetables are keys to promoting health, especially those that are rich in vitamins, nutrients and antioxidants such as berries, citrus fruits, tomatoes, broccoli and spinach. People who eat generous amounts of fruits and vegetables can reduce the risk of chronic disease, including stroke, heart diseases, diabetes and certain cancers (CDC, 2011). Fruits and veggies can also help you manage weight and reduce the risk of obesity.

- **Grains** – The USDA recommends that at least half of the grains you eat should be whole grains versus refined grains (2011). Whole grains are made from the entire grain kernel, which includes bran, germ and endosperm. Refined grains are those that have been milled to have the bran and the germ removed. While this improves shelf life, crucial dietary components such as fiber, iron and many B vitamins are taken out. Whole grains such as oats, whole wheat crackers, bread and pasta, wild and brown rice provide an instant boost of fiber, which can relieve constipation, make you feel fuller longer and help keep your weight under control. Whole grains are also associated with improvement in cholesterol levels, lower blood pressure, reduced risk of heart disease and prevention of certain cancers (Mayo Clinic, 2014).
- **Protein** – Approximately one quarter of your plate should contain protein (USDA, 2011). Protein is a nutrient that the body needs to grow, repair and maintain itself. Protein acts as a foundation for bones, muscles, cartilage, skin and blood. By choosing lean or low-fat protein choices, you are building a strong foundation and receiving multiple vitamins and minerals such as B vitamins, vitamin E, iron, zinc and magnesium. Both animal and plant foods contain protein; thus diets should include a variety of lean meats, poultry, beans, peas, nuts and eggs to improve nutrient intake and health benefits (USDA, 2011). It is also important to eat at least 2 servings of fish per week. Seafood contains significant amounts of beneficial nutrients that prevent heart disease, specifically the omega-3 fatty acids (AHA, 2012).
- **Calcium and vitamin D** – From the time we are born and throughout our lifetime, we need calcium. Calcium helps cells and nerves function, blood clot, muscles contract, the heart beat and bones and joints stay strong (NIH, 2011). Additional health benefits of calcium include a decreased risk of osteoporosis, cardiovascular disease, type 2 diabetes and hypertension. Dairy products, which are great sources of calcium, include milk, plain yogurt and cheese. To avoid empty calories and excess fat, choose fat-free or low-fat products and avoid foods that have been sweetened by added sugars (flavored milk, yogurt and frozen desserts) (USDA, 2011). Some non-dairy products that contain calcium include broccoli, almonds, kale, soy and oranges. In general, if you are not drinking 3 cups of milk daily, starting at age 9, or taking calcium supplements, you are likely not getting enough calcium (USDA, 2011).

Vitamin D helps the body absorb and metabolize calcium more effectively. Vitamin D comes from fortified dairy products, cod liver oil and fatty fish as well as exposure to direct sunlight (about 15 minutes a day).

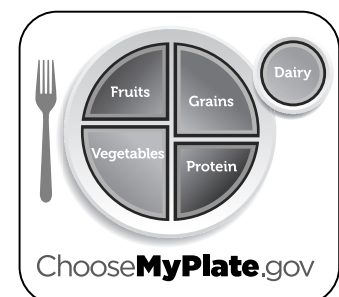
The amount of calcium you need each day depends on your age. The National Institutes of Health and Institute of Medicine recommend the following amounts of daily calcium in milligrams (mg):

0-6 months (ideally breast milk)	200 mg
7-12 months (ideally breast milk)	260 mg
1-3 years	700 mg
4-8 years	1,000 mg
9-18 years	1,300 mg
19-50 years	1,000 mg
51-70 years	1,000 mg (men); 1,200 mg (women)
71+ years	1,200 mg
Pregnant and breastfeeding teens	1,300 mg
Pregnant and breastfeeding adults	1,000 mg

Sources: NIH Dietary Supplement Fact Sheet: Calcium retrieved from <http://ods.od.nih.gov/factsheets/Calcium-QuickFacts/>; Institute of Medicine: Dietary Reference Intakes for Calcium and Vitamin D retrieved from <http://www.iom.edu/Reports/2010/Dietary-Reference-Intakes-for-Calcium-and-Vitamin-D.aspx>.

MyPlate

- make half of your plate fruits and vegetables
- make the other half of your plate grains and protein
- make at least half of your grains whole grains
- try lean meats, skinless poultry, fish, beans, eggs and nuts
- choose low-fat or fat-free milk and dairy products
- enjoy limited amounts of fats, cholesterol, sodium and added sugars (USDA, 2012)



Don't skip breakfast.

Many people don't make time, think they don't need breakfast or may not even feel hungry enough in the morning to eat. But breakfast is the most important meal of the day. A small nutritious breakfast, such as a piece of fruit and a cup of green tea, is better than no breakfast. Research demonstrates that children who eat breakfast perform better and have fewer behavior problems in school (Affenito, 2007). In addition, a well-balanced breakfast:

- provides you with energy and increases physical activity during the day.
- gets your metabolism started for the day and keeps it active throughout the morning.
- reduces hunger later in the day and prevents you from overeating.
- positively affects mood, patience and cognitive performance.

Control your portions.

The amount you eat is just as important as what you eat. Too many calories, fat and bad cholesterol are often a result of people putting too much food on their plate, taking seconds or eating until they feel full (Clover Way, 2013). A **portion** is the amount of food you put on your plate; whereas, a **serving** is a specific amount of food defined by a common measurement, such as a cup or a tablespoon. For example, one serving size of cooked pasta is a half cup. But the typical portion we are likely to eat is at least double this – especially in a restaurant. To help with portion control, pay close attention to appropriate serving sizes and the number of servings you eat (Clover Way, 2013).

Everything in moderation.

You may decide you are going to give up bad fat or sugar completely. Most of us will eventually break down and binge. Instead, reward yourself. If you go all week without eating a sugar-laden dessert, treat yourself at the end of the week with a few bites of a hot fudge sundae. This gives you something to look forward to and provides you with strength to power through the week. It's important that you eat healthy foods most of the time.

According to the CDC (2014) and USDA (2010), drinking alcohol in moderation is defined as having up to 1 drink per day for women and up to 2 drinks per day for men. This definition is referring to the amount consumed on any single day and is not intended as an average over several days.

Drink more water.

Every system in your body needs water. Water flushes out toxins, carries nutrients to cells, provides a moist environment for ear, nose and throat tissues and aids in digestion (Mayo Clinic, 2011; USDA 2011). The water lost from everyday tasks such as breathing, perspiration and digestion must be replenished or else you will become dehydrated. Dehydration can leave you feeling sluggish or tired. Severe dehydration can even lead to confusion and changes in heart rate. Fluid intake varies from person to person depending on environment, activity level and health. On average, you should drink enough fluid, primarily water, so that you rarely feel thirsty and produce about 6.3 or more cups of colorless or light yellow urine (Mayo Clinic, 2011). If you are concerned about your water intake, your health care provider can help you determine an amount that is right for you.

Water also helps you feel full. If you feel like snacking, drink a full glass of water first. Sometimes we confuse hunger for thirst. If after 15 minutes you are still hungry, then grab a healthy snack. Water is also a good substitute for juices or sodas high in sugar or artificial sweeteners.

Give It aTry! Shop the Perimeter.

Next time you're at the supermarket, make it your goal to fill up three-fourths of your cart with foods from the perimeter of the store. Oftentimes, the perimeter is where you will find nutrient-dense foods such as fresh fruits, fresh vegetables, fresh meats and seafood, dairy, whole-wheat bread products and other healthy options (Mayo Clinic, 2014). Down the aisles is usually where you will find the processed, sugary, salty and high-calorie foods.

Get the skinny on fat.

Fats are an important part of a healthy diet (Mayo, 2014). Fats provide essential fatty acids, keep skin soft, deliver vitamins and are a great source of energy. But there are two kinds of fat from which we have to choose – unsaturated (healthy fat) and saturated (unhealthy fat) (Mayo, 2014).

Unsaturated fats include both polyunsaturated fatty acids (PUFAS) and monounsaturated fats (MUFUS) (Mayo, 2014). MUFUS helps lower cholesterol, reduce the risk of heart disease and may even influence insulin levels and blood sugar, which can be helpful for those with type 2 diabetes (Mayo, 2014). PUFAS improve cholesterol and can decrease the risk of heart disease. PUFAS are found in vegetable oils, salmon, trout, mackerel, flaxseed and walnuts. Omega-3 fatty acids are a type of polyunsaturated fat associated with heart health. Omega-3 fatty acids can be found in fatty fish, such as salmon and tuna (Mayo, 2014). MUFUS are found primarily in the form of olive, canola and peanut oils, but can also be found in olives, avocados, hazelnuts, almonds, Brazil nuts, cashews, sesame seeds and pumpkin seeds. Monosaturated fats are also a good source of Vitamin E, an antioxidant that helps heal, repair and rejuvenate. Mediterranean diets are often high in monosaturated fats.

The unhealthy fats that should be eaten sparingly include **saturated** and **trans fatty acids**. Both can raise cholesterol levels, clog arteries and increase the risk for heart disease (Mayo, 2014). Saturated fats are found naturally in animal products, such as meat, poultry skin, high-fat dairy and eggs, and in vegetable fats that are solid at room temperature, such as coconut and palm oils. Trans fats can occur naturally, as in dairy products and the fatty part of meat, and it can be added to foods artificially. Artificial trans fats cause great health concerns as even small amounts can increase the risk for heart disease. They are used in frying, baked goods, cookies, icings, packaged snack foods, microwave popcorn and some margarines. The American Heart Association (2012) advises less than 7 percent of total daily calories from saturated fat and less than 1 percent from trans fats. For a 2,000-calorie diet, that allows 15g of saturated fat and 2 g of trans fats.

The bottom line, total fat intake should be limited to less than 20-35 percent of your total daily calories from fat, or 44-78 grams of total fat for a 2,000-calorie diet (Mayo, 2014).

Fight cholesterol.

Good fat and bad fat contribute to cholesterol, a waxy, fat-like substance that is found in all cells of the body (Mayo, 2014). While your body makes all the cholesterol it needs to make hormones, vitamin D and substances that help you digest foods, cholesterol is also found in some of the foods you eat. Unsaturated fats (MUFUS and PUFAS) are good fats that you should consume fairly regularly. They help lower the LDL cholesterol (the bad cholesterol) in your body by raising the good cholesterol (HDL cholesterol) (Mayo, 2014). Foods that are high in unsaturated fats include olive oil, nuts, fish oil and various seed oils. Saturated fats and trans fats such as animal fats and solid butter or shortening are high in the kind of fats that raise your LDL cholesterol levels and consequently your risk for heart disease (Mayo, 2014).

Just say NO to sodium.

An excess intake of sodium, or table salt, can lead to high blood pressure and an increased risk of heart disease, stroke, congestive heart failure and kidney disease (CDC, 2011). While sodium is naturally found in some foods, the majority of sodium intake comes from processed foods, restaurant foods and the salt we personally add at the table or while cooking. The average American consumes 3,436 mg of sodium daily (CDC, 2011). It is recommended that everyone, including children, should limit their intake of sodium to less than 2,300 milligrams per day (about 1 teaspoon of salt). For adults age 51 and older, African Americans of any age and those with hypertension, diabetes or chronic kidney disease, salt intake should be limited to less than 1,500 milligrams per day (about 2/3 of a teaspoon of salt) (USDA, 2011).

To reduce daily sodium intake (NIH, 2008):

- Keep the salt shaker off of the dinner table.
- Choose foods that have “low sodium,” “reduced sodium” or “sodium free” labels.
- When eating out, ask for low-sodium dishes or ask for no salt to be added.
- Enjoy home-cooked meals so you can control the amount of salt.
- When cooking, replace salt with other heart-healthy herbs and spices such as cinnamon, cumin, turmeric, cayenne, oregano, ginger, thyme and rosemary or add a splash of fresh lemon juice.
- Pay attention to condiments like soy sauce, ketchup and seasoning packets that can have excess sodium.

Consume less sugar.

Added sugars are often hidden ingredients that are dense in calories and have zero nutrients. Typically, added sugars can be found in breads, canned soups, canned vegetables, pasta sauces, instant mashed potatoes, frozen dinners, fast food, ketchup, fruit juices, flavored water and soft drinks. Hidden sugars will be listed on ingredients labels as fructose, corn syrup or corn sweetener, fruit juice concentrate, molasses, brown rice syrup, cane or sugar cane juice, fruit nectar, sucrose, glucose, crystal dextrose or maltose (USDA, 2011). Added sugars can lead to tooth decay and adverse health effects such as obesity, lower HDL levels, hypertension, cardiovascular disease and type 2 diabetes (AAFP, 2010). The American Heart Association recommends no more than 6 teaspoons of added sugar per day for women and no more than 9 teaspoons per day for men. Keep in mind that 4 grams of sugar equals 1 teaspoon (AHA, 2014).

To reduce added sugar intake (AAFP, 2010; AHA, 2012):

- Eat fresh or frozen fruits and vegetables
- Avoid canned fruits in syrup, particularly heavy syrup
- Choose low-carbohydrate, low-sugar or sugar-free versions of syrup, pasta, bread, ice cream and beverages
- Limit candy, baked goods and other sweet treats
- Opt for water instead of sugary fruit drinks, sodas and sweet teas
- Limit processed foods that are typically high in sugar, fat and sodium
- Enhance foods with spices instead of sugar

“Carb” up the healthy way.

Many diet trends warn you to stay away from carbohydrates because they will cause you to gain weight. But the body needs carbohydrates to properly function. Carbohydrates provide energy, protect against disease and can actually help control weight. The trick is choosing healthy carbohydrates. The 2010 Dietary Guidelines for Americans advise that 45 to 65 percent of total daily calories should come from carbohydrates. This is between 900 and 1,300 calories a day if you eat a 2,000-calorie diet. There are three main types of carbohydrates: sugars, starches and fibers (Mayo Clinic, 2011). For the best carbohydrates, aim for fiber-rich fruits and vegetables, whole grains, low-fat dairy products, beans and legumes that are usually high in vitamins, nutrients and fiber. These types of carbohydrates are filling and slow to digest, which helps keep the digestive system running smoothly (Mayo Clinic, 2011). Limit added sugars and refined grains, including candy, sweets and sugary drinks. These are packed with calories and little nutrition.

Eat smart while eating out.

Eating out is a great opportunity to try new foods, have a night out with friends and family or have a meal prepared for you while you relax. It can be easy to consume foods that are large in portion, calories, rich in bad fat, excess sodium and sugar. To eat smart when eating out:

- Order your food baked, broiled or grilled instead of fried
- Substitute – instead of French fries, ask for a salad, fruit or vegetable of the day
- Choose dishes without gravies or creamy sauces
- Avoid dishes described with words such as creamy, buttery, fried, crispy, smothered, breaded, alfredo, hollandaise, au gratin and smothered
- Ask for dressings on the side or choose a low-fat option
- Split a meal with a friend – it saves calories and money
- Try fruit for dessert

Count your calories.

Depending on your body size, metabolism, activity level and age, the number of daily calories (energy) you need to properly function may vary. Based on activity level, the U.S. Department of Agriculture and the U.S. Department of Health and Human Services (2010) recommend the following daily caloric intake as defined by age, gender and physical activity level. Always talk with a health care provider before making any major dietary changes.

Gender	Age (years)	Sedentary*	Moderately Active**	Active***
Child (female and male)	2-3	1,000-1,200	1,000-1,400	1,000-1,400
Females	4-8	1,200-1,400	1,400-1,600	1,400-1,800
	9-13	1,400-1,600	1,600-2,000	1,800-2,200
	14-18	1,800	2,000	2,400
	19-30	1,800-2,000	2,000-2,200	2,400
	31-50	1,800	2,000	2,200
	51+	1,600	1,800	2,000-2,200
Male	4-8	1,200-1,400	1,400-1,600	1,600-2,000
	9-13	1,600-2,000	1,800-2,200	2,000-2,600
	14-18	2,000-2,400	2,400-2,800	2,800-3,200
	19-30	2,400-2,600	2,600-2,800	3,000
	31-50	2,200-2,400	2,400-2,600	2,800-3,000
	51+	2,000-2,200	2,200-2,400	2,400-2,800

Sources: Dietary Guidelines for Americans (2010). Retrieved from <http://health.gov/dietaryguidelines/dga2010/DietaryGuidelines2010.pdf>. National Institute on Aging (2012). Retrieved from <http://www.nia.nih.gov/health/publication/healthy-eating-after-50>.

* **Sedentary Lifestyle:** light physical activity associated with typical day-to-day life.

** **Moderately Active Lifestyle:** physical activity associated with typical day-to-day living plus physical activity that is equivalent to walking about 1.5 to 3 miles at 3 to 4 miles per hour.

*** **Active Lifestyle:** physical activity equal to walking more than 3 miles per day at 3 to 4 miles per hour in addition to the light physical activity associated with typical day-to-day life (Dietary Guidelines, 2010).

CONCLUSION

Eating healthy today creates a healthier tomorrow. Healthy eating provides the necessary nutrients that your body needs to create new cells, clean toxins and function every day. Eating right can help prevent future illness and chronic disease. Lastly, eating healthy provides you with more energy so that you can be alert, become a better decision-maker and establish healthy lifestyle behaviors throughout your life that will influence optimal aging.

REFERENCES

- Affenito, S. (2007). Breakfast: A missed opportunity. *Journal of the American Dietetic Association*, 107(4):565-569.
- American Academy of Family Physicians. (2010). Added sugar: What you need to know. Retrieved from <http://familydoctor.org/online/famdocen/home/healthy/food/general-nutrition/1005.html>.
- American Heart Association. (2007). How can I lower high cholesterol? Retrieved from www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_300460.pdf.
- American Heart Association. (2012). Sugars and Carbohydrates. Retrieved from http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HealthyDietGoals/Sugars-and-Carbohydrates_UCM_303296_Article.jsp.
- American Heart Association. (2012). Know your fats. Retrieved from http://www.heart.org/HEARTORG/Conditions/Cholesterol/PreventionTreatmentofHighCholesterol/Know-Your-Fats_UCM_305628_Article.jsp.
- American Heart Association. (2014). Sugar 101. Retrieved August 11, 2014, from http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HealthyEating/Sugar-101_UCM_306024_Article.jsp.
- Centers for Disease Control and Prevention. (2011). Retrieved from www.cdc.gov.
- Centers for Disease Control and Prevention. (2011). Chronic disease prevention and health promotion: Nutrition and physical activity: Helping people choose healthy eating and active living at a glance 2011. Retrieved August 11, 2014, from <http://www.cdc.gov/chronicdisease/resources/publications/aag/nutrition.htm>.
- Centers for Disease Control and Prevention. (2014). Retrieved March 5, 2015 from <http://www.cdc.gov/alcohol/faqs.htm>.
- Clover Way Better: Your Weekly Dose of Health, Nutrition and Wellness. (2013). Retrieved March 5, 2015 from <http://blog.clover.co.za/2013/09/5-lifestyle-changes-to-keep-heart.html>.
- Chau, P. S. (2009). Health at heart: Calcium is essential to life. Retrieved July 23, 2012, from www.thenewstoday.info/2009/08/14/calcium.is.essential.to.life.html.
- Eating Disorders Coalition. (2008). Facts about eating disorders: What the research shows. Retrieved July 23, 2012, from www.eatingdisorderscoalition.org/.

- Institute of Medicine. Dietary Reference Intakes for Calcium and Vitamin D. Retrieved from <http://www.iom.edu/Reports/2010/Dietary-Reference-Intakes-for-Calcium-and-Vitamin-D.aspx>.
- Kovach, S., and G. Kemp. (2011). Senior nutrition: The joy of eating well and aging well. Retrieved from www.helpguide.org/life/senior_nutrition.htm.
- Mayo Clinic. (2011). Nutrition and Healthy Eating. Water: How much should you drink every day? Retrieved August 11, 2014, from <http://www.mayoclinic.org/healthy-living/nutrition-and-healthy-eating/in-depth/water/art-20044256?pg=2>.
- Mayo Clinic. (2012). Nutrition and Healthy Aging. Carbohydrates: How carbs fit into a healthy diet. Retrieved from <http://www.mayoclinic.com/health/carbohydrates/MY01458/NSECTIONGROUP=2>.
- Mayo Clinic. (2014). Nutrition and Healthy Aging. Whole grains: Hearty options for a healthy diet. Retrieved August 11, 2014, from <http://www.mayoclinic.org/healthy-living/nutrition-and-healthy-eating/in-depth/whole-grains/art-20047826?pg=1>.
- Mayo Clinic. (2014). Dietary fats: Know which types to choose. Retrieved March 5, 2012 from <http://www.mayoclinic.org/healthy-living/nutrition-and-healthy-eating/in-depth/fat/art-20045550?pg=1>.
- Mayo Clinic. (2014). Grocery store secret: Shop the perimeter. Retrieved March 5, 2015 from <http://www.mayoclinic.org/healthy-living/nutrition-and-healthy-eating/in-depth/health-tip/art-20048842>.
- National Institute on Aging. (2012). Health and Aging: Healthy eating after 50. Retrieved from <http://www.nia.nih.gov/health/publication/healthy-eating-after-50>.
- National Institutes of Health. (2012). Senior Health. Retrieved from <http://nihseniorhealth.gov>.
- National Institutes of Health. (2011). Your guide to lowering high blood pressure. Retrieved from www.nhlbi.nih.gov/hbp/hbp/whathbp.htm.
- United States Department of Agriculture and the United States Department of Health and Human Services. (2010). Dietary Guidelines for Americans (2010). Retrieved from <http://health.gov/dietaryguidelines/dga2010/DietaryGuidelines2010.pdf>.
- United States Department of Agriculture. (2014). Choose MyPlate.gov. Retrieved August 11, 2014, from <http://www.choosemyplate.gov/food-groups/vegetables-why.html>.
- Zelman, K. M. (2007). The skinny on fat: Good fat vs. bad fat. WebMD. Retrieved July 23, 2012, from www.webmd.com/diet/features/skinny-fat-good-fats-bad-fats.