



Most people eat at least three times a day, and for a variety of reasons: because food appeals to the taste buds, because it is a social activity, and because food is good for them. Eating provides the body with energy so people can breathe and function.

Food also has an impact on overall health. Nutritious foods help maintain a healthy body and protect against various illnesses, disorders, and chronic diseases, such as heart disease, stroke, dementia, type 2 diabetes, bone loss, cancer, and anemia. Diet and nutrition can also help reduce high blood pressure, lower cholesterol, manage arthritis, maintain healthy skin, hair, and nails, and manage diabetes. 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.
- Think of food in terms of nutrition. Are you eating because you are hungry and need the energy? Or are you eating because you are bored or 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? Or 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. Over- and under-eating 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. Professionals, such as therapists and 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 the food groups. The U.S. Department of Agriculture's (USDA) nutrition guide is called MyPlate. This guide



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. Fruits and vegetables are key 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. Fruits and veggies can also help you manage weight and reduce the risk of obesity.
- **Grains** — The USDA recommends at least half of the grains you eat should be whole grains versus refined grains. Whole grains are made from the entire grain kernel, which includes bran, germ, and endosperm. Refined grains are those that have been milled to remove the bran and germ. 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, pasta, and wild and brown rice — provide an instant boost of fiber that 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 type 2 diabetes, and prevention of certain cancers.
- **Protein** — Approximately one quarter of your plate should contain protein. Protein is a nutrient 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 foods, 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 and peas, nuts, and eggs to improve nutrition and health benefits. It is also important to eat at least two servings of fish per week. Seafood contains significant amounts of beneficial nutrients that prevent heart disease, specifically the omega-3 fatty acids.

- **Calcium and Vitamin D** — From birth and throughout your lifetime you 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). Some nondairy products containing 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.
- **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).

### Don't Skip Breakfast

Many people don't make time, think they don't need it, 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

---

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

0 to 6 months (ideally breast milk)	200 mg
7 to 12 months (ideally breast milk)	260 mg
1 to 3 years	700 mg
4 to 8 years	1,000 mg
9 to 18 years	1,300 mg
19 to 50 years	1,000 mg
51 to 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/>; IOM: Dietary Reference Intakes for Calcium and Vitamin D retrieved from <http://iom.nationalacademies.org/Reports/2010/Dietary-Reference-Intakes-for-Calcium-and-Vitamin-D.aspx>

a piece of fruit and cup of green tea, is better than no breakfast. Children who eat breakfast perform better on standardized achievement tests and have fewer behavior problems in school.

### ***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; and
- positively affects mood, patience, and cognitive performance.

### ***Control Your Portions***

The amount you eat is just as important as what you eat. Overloading your plate, taking seconds and eating until you feel stuffed can lead to excess calories, fat, and cholesterol. 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 tablespoon. For example, one serving size of cooked pasta is 1/2 cup. But the typical portion you are likely to eat is at least double this — especially in a restaurant. Keep track of the number of servings you eat and use proper serving sizes to help control your portions.

### ***Everything in Moderation***

You may decide that you are going to give up bad fat or sugar completely. But most people 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 USDA, 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.

### ***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)

### ***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. 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. 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 you 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.

### ***Get the Skinny on Fat***

Fats are an important part of a healthy diet. Fats provide essential fatty acids, keep skin soft, deliver vitamins, and are a great source of energy. But there are two kinds of fat — unsaturated (healthy fat) and saturated (unhealthy fat).

Unsaturated fats include both polyunsaturated fatty acids and monounsaturated fats. They help lower cholesterol and reduce the risk of heart disease. Polyun-

### ***Try This: Shop the perimeter***

Next time you're at the supermarket, make it your goal to fill up  $\frac{3}{4}$  of your cart with foods from the perimeter of the store. Often, 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. Down the aisles is usually where you will find the processed, sugary, salty, and high-calorie foods.

saturated fatty acids are found in vegetable oils, salmon, trout, mackerel, flaxseed, and walnuts. Monounsaturated fats 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. Monounsaturated fats are also a good source of vitamin E, an antioxidant that helps heal, repair, and rejuvenate. Mediterranean diets are often high in monounsaturated 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. 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 advises less than 7 percent of total daily calories come from saturated fat and less than 1 percent from trans fats. For a 2,000-calorie diet, that allows 15 g of saturated fat and 2 g of trans fats.

The bottom line: total fat intake should be limited to less than 25 to 35 percent of your total daily calories from fat, or 56 to 77 grams of total fat for a 2,000-calorie diet.

### ***Fight Cholesterol***

Good fat and bad fat contributes to cholesterol, a waxy, fat-like substance that is found in all cells of the body. 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 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). Foods that are high in unsaturated fats include olive oil, nuts, fish oil, and various seed oils. Saturated fats such as animal fats and some vegetable oils are high in the kind of fats that raise your LDL cholesterol levels. Trans fats are a form of unsaturated fat commonly found in processed foods, and consuming them raises your risk of heart disease.

### ***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. While sodium is naturally found in some foods, the majority of sodium intake comes from processed foods, restaurant meals, and the salt added at the table or in cooking. The average American consumes 3,436 mg of sodium daily. But 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  $\frac{2}{3}$  of a teaspoon of salt).

### ***Reduce daily sodium intake by following these tips:***

- Keep the salt shaker off 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 such as soy sauce, ketchup, and seasoning packets, which 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 bread, canned soups, canned vegetables, pasta sauce, 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, fructose, fruit nectar, sucrose, glucose, crystal dextrose, or maltose. Added sugars can lead to tooth decay and adverse health effects such as obesity, lower HDL levels, hypertension, cardiovascular disease, and type 2 diabetes. 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.

### *To reduce added sugar intake:*

- 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, which are typically high in sugar, fat, and sodium; and
- 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 percent 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. For the best carbohydrates, aim for fiber-rich fruits and vegetables, whole grains, low-fat dairy products, and beans and legumes that are usually high in vitamins, nutrients, and fiber. These types of carbohydrates are filling and slow to digest, which keeps 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 or family, or have a meal prepared for you while you relax. But it can be easy to consume foods that are large in portion and calories and rich in bad fat and 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, 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; and
- try fruit for dessert.

## Count Your Calories

Depending on your body size, metabolism, activity level, and age, the number of daily calories (energy) that you need to properly function may vary. Based on activity level, the USDA 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.

## 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 to function every day. Eating right can help prevent future illness and chronic disease. Lastly, eating healthy provides you with more energy so you can be alert and a better decision-maker. Eating healthy and establishing healthy lifestyle behaviors throughout your life will influence optimal aging.

### Calorie Requirements for Children and Adults

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

## References

- American Academy of Family Physicians (AAFP) (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 (AHA) (2007). How can I lower high cholesterol? Retrieved from [www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm\\_300460.pdf](http://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](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](http://www.heart.org/HEARTORG/Conditions/Cholesterol/PreventionTreatmentofHighCholesterol/Know-Your-Fats_UCM_305628_Article.jsp)
- Centers for Disease Control and Prevention. (2011). Retrieved from [www.cdc.gov](http://www.cdc.gov)
- 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](http://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/](http://www.eatingdisorderscoalition.org/)
- Institute of Medicine: Dietary Reference Intakes for Calcium and Vitamin D retrieved from <http://iom.nationalacademies.org/Reports/2010/Dietary-Reference-Intakes-for-Calcium-and-Vitamin-D.aspx>
- Kovach, S. & Kemp, G. (2011). Senior nutrition: The joy of eating well and aging well. Retrieved from [www.helpguide.org/life/senior\\_nutrition.htm](http://www.helpguide.org/life/senior_nutrition.htm)
- 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>
- National Institute on Aging. (2012). Health & Aging: Healthy eating after 50. Retrieved from <http://www.nia.nih.gov/health/publication/healthy-eating-after-50>
- National Institute of Health. (2012). Senior Health. Retrieved from <http://nihseniorhealth.gov>
- National Institute of Health (2011). Your guide to lowering high blood pressure. Retrieved from [www.nhlbi.nih.gov/hbp/hbp/whathbp.htm](http://www.nhlbi.nih.gov/hbp/hbp/whathbp.htm)
- United States Department of Agriculture (2011). Choose my plate. Retrieved from [www.choosemyplate.gov/index.html](http://www.choosemyplate.gov/index.html)
- United States Department of Agriculture and the U.S. Department of Health and Human Services (2010). Dietary Guidelines for Americans (2010). Retrieved from <http://health.gov/dietaryguidelines/dga2010/DietaryGuidelines2010.pdf>
- 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](http://www.webmd.com/diet/features/skinny-fat-good-fats-bad-fats)



Adapted and used with permission of the University of Arkansas Research and Extension, and the University of Kentucky College of Agriculture.

### ***Authors***

**Erin Yelland**, Ph.D., CFLE, Assistant Professor and Extension Specialist, Adult Development and Aging, K-State Research and Extension

**Amy F. Hosier**, Associate Professor, University of Kentucky

**LaVona S. Traywick**, Associate Professor, University of Arkansas

### ***Reviewers***

**Dr. Rosalie Otters**, University of Arkansas

**Dr. Lisa Washburn**, University of Arkansas



Publications from Kansas State University are available at [www.ksre.ksu.edu](http://www.ksre.ksu.edu)

Publications are reviewed or revised annually by appropriate faculty to reflect current research and practice. Date shown is that of publication or last revision. Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned. Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. In each case, credit author, *Keys to Embracing Aging: Eating Smart*, Kansas State University, December 2015.

### **Kansas State University Agricultural Experiment Station and Cooperative Extension Service**

K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, John D. Floros, Director.