

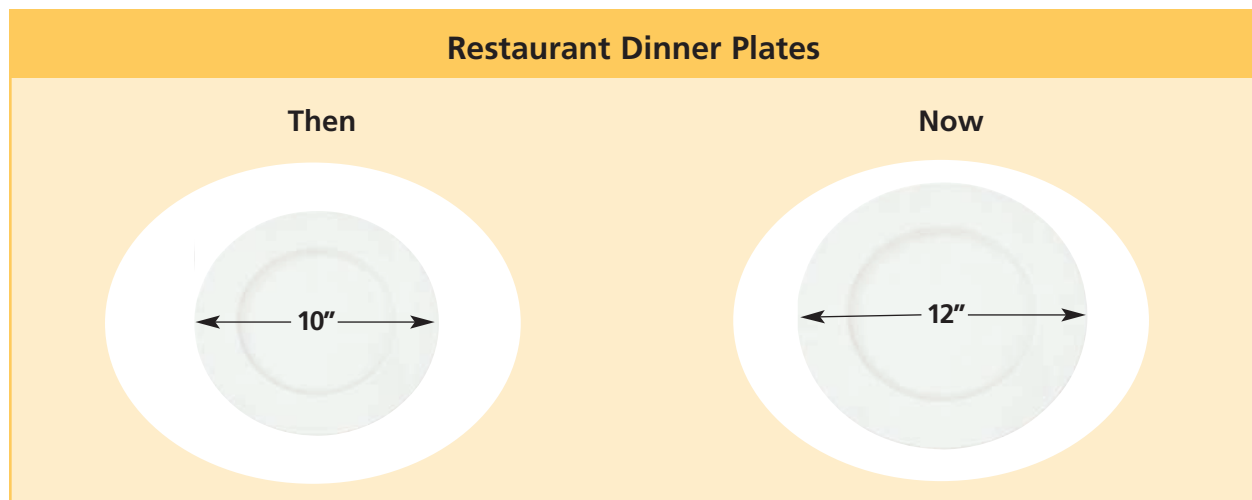
Healthy Portions

People tend to eat more when they are presented with larger dinnerware and/or larger portions of food. This trend is one key to weight management since people gain weight when they eat more calories than they burn.¹

One culprit is the increasing sizes of everyday plates, bowls and utensils.

“Big dishes and big spoons are big trouble,” said food psychologist Brian Wansink in his book, *Mindless Eating: Why We Eat More Than We Think*.² “As the size of our dishes increases, so does the amount we scoop onto them. They cause us to serve ourselves more because they make the food look so small.”

Individuals could compensate for larger portions by eating fewer calories the rest of the day. But studies show that this often does not happen.³ Here is how plate sizes at restaurants, for example, have increased over the years:



Source: *Causes and consequences of adult obesity: health, social and economic impacts in the United States*. Asian Pacific Journal of Clinical Nutrition, 2002, 11 (Suppl): S705-S709. <http://www.beactiveflorida.org/reports/pdf/CausesAndConsequences.pdf>

The larger the bowl, plate or popcorn bucket, the more we eat

The following research shows that individuals tend to consume more calories when given larger bowls, popcorn buckets and portions of food.



Ice Cream Bowls: Nutrition experts at the University of Illinois were given a smaller (17 oz) or larger (34 oz) bowl to dish out ice cream. Those with the larger bowl served themselves and consumed 31 percent more calories than those with the smaller bowl.⁴



Stale Popcorn: Even when the food didn't taste good, large packages still resulted in overeating. When given medium or large buckets of fresh and stale popcorn, people with the larger buckets consumed more of the popcorn regardless of whether it was fresh or stale.⁵



Sandwiches: Female participants in a study ate 12 percent more calories when given a 12-inch sandwich compared to when they were given an 8-inch sandwich. Men consumed 23 percent more calories when given the larger sandwich.⁶

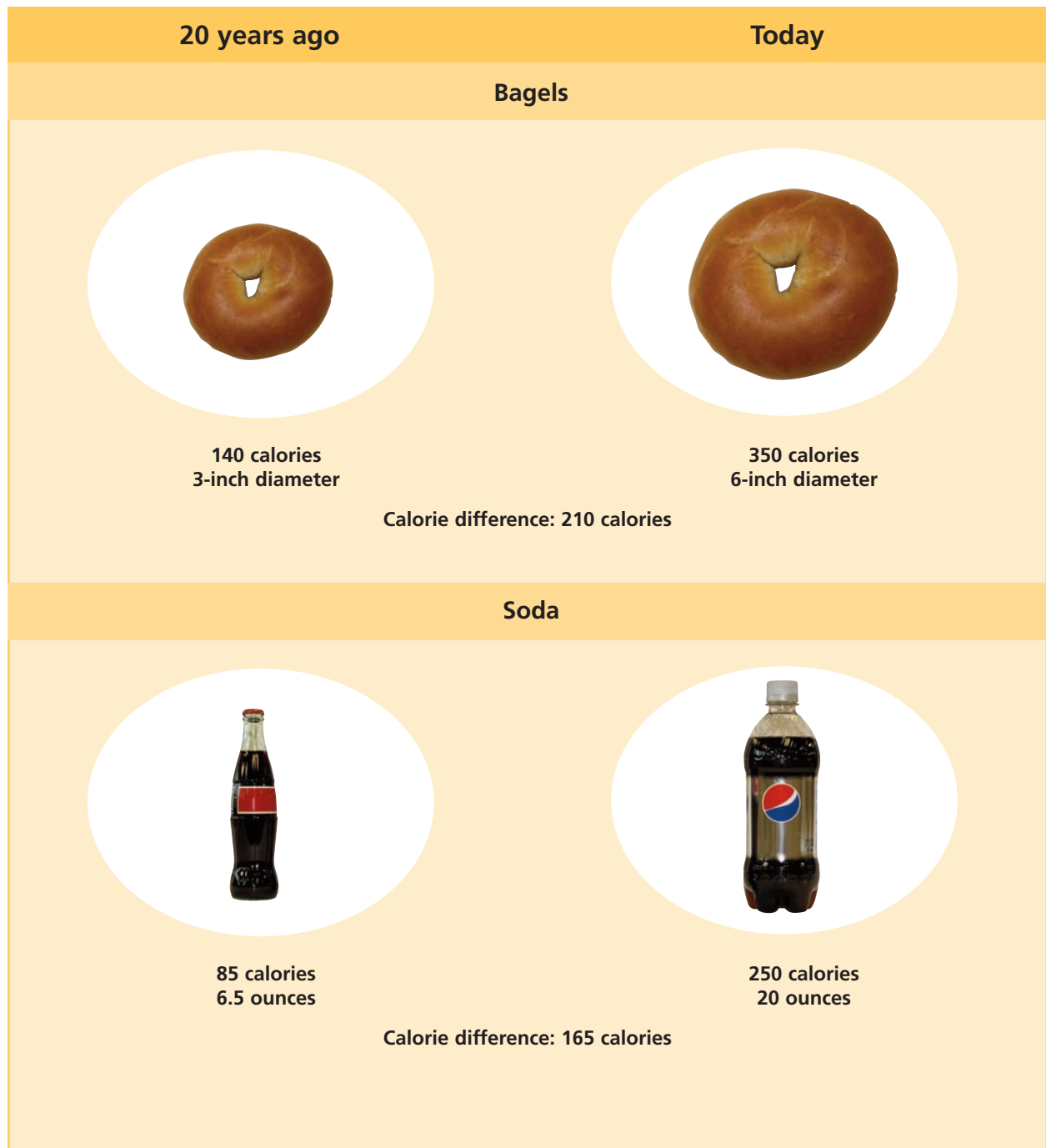


Mac & Cheese: Study participants consumed 30 percent more calories when served the larger (about 4 cups) portion of macaroni and cheese compared to the smaller (about 2 cups) portion. They also reported the same feelings of hunger and fullness, despite the varying amounts of food consumed.⁷

Diabetes: The proportion of people with diabetes who lost at least 5 percent of their body weight was significantly higher among those who ate off a "special" plate compared to those who did not. The "special" plate was divided into the right portion sizes for different types of food (vegetables, protein, carbohydrates, etc.) and sized in accordance to the individual's caloric needs. Achieving a 5 percent weight loss has been shown to cut your risk of death due to obesity-related disorders.⁸

How portion sizes of certain foods have increased over the years

The obesity epidemic has also been blamed in part to larger portion sizes of foods. Here is how such foods have increased in size over the years:⁹



20 years ago

Today

Cheeseburger



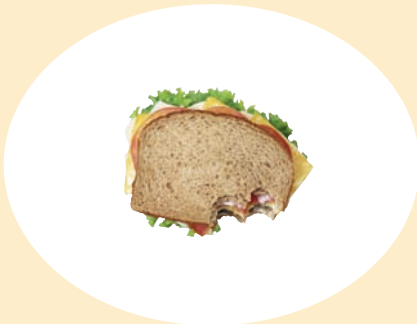
333 calories



590 calories

Calorie difference: 257 calories

Turkey sandwich



320 calories



820 calories

Calorie difference: 500 calories

Coffee



Coffee – whole milk and sugar

45 calories
8 ounces



Mocha Coffee – steamed whole milk
and mocha syrup

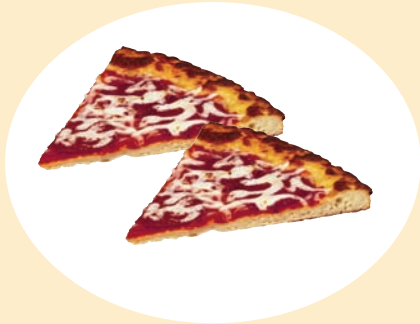
350 calories
16 ounces

Calorie difference: 305 calories

20 years ago

Today

Pepperoni Pizza



500 calories



850 calories

Calorie difference: 350 calories

Cookie



55 calories
1.5 inch diameter



275 calories
3.5 inch diameter

Calorie difference: 220 calories

Popcorn



270 calories
5 cups



630 calories
11 cups

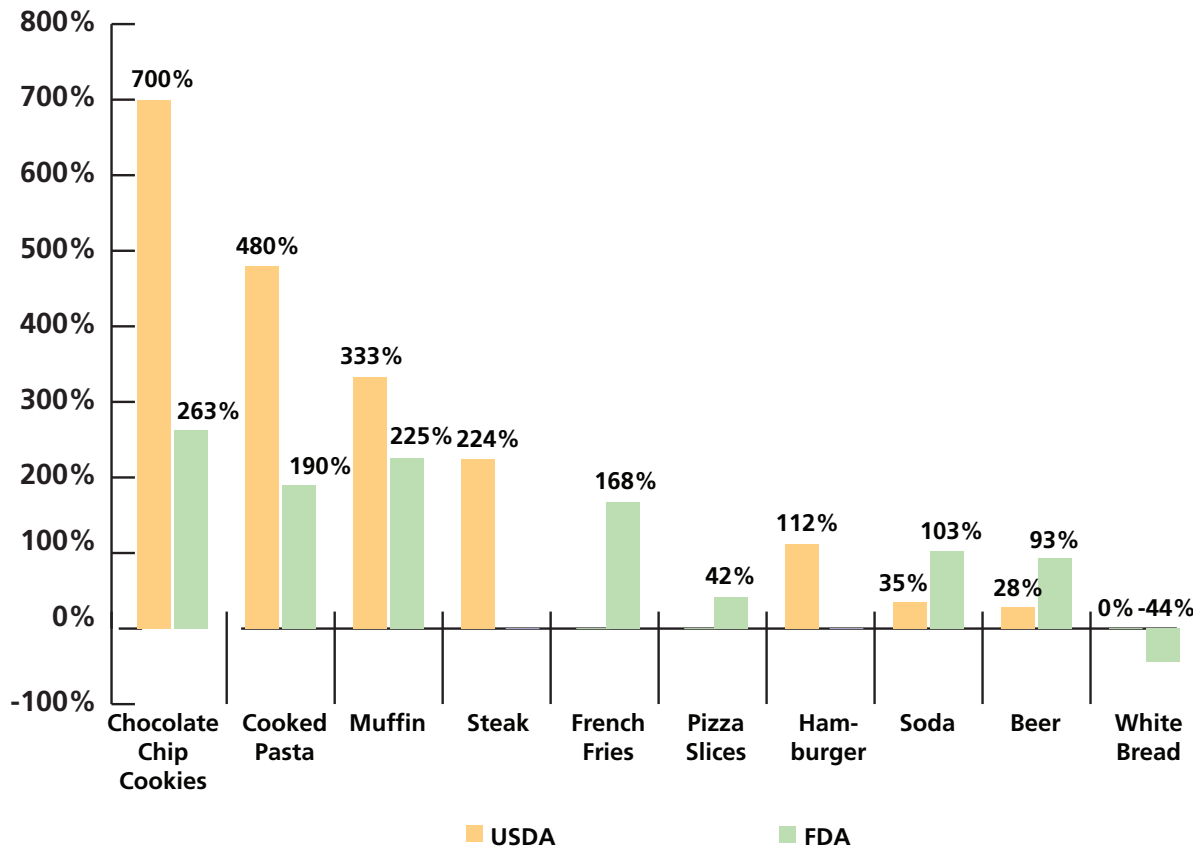
Calorie difference: 360 calories

Source: National Heart Lung and Blood Institute: *Portion Distortion I and Portion Distortion II*. <http://hp2010.nhlbihin.net/portion/index.htm>

Many prepared foods exceed federal portion size standards

The U.S. Department of Agriculture (USDA) My Pyramid and the U.S. Food and Drug Administration (FDA) set standard portions for certain types of food. But many prepared foods exceed these federal standards.¹⁰

The following graph shows the percentage difference between actual portion sizes and portion sizes recommended by the USDA and FDA for certain foods:



- The worst offender was a portion of chocolate chip cookies, which was 700 percent larger than USDA standards and 263 percent larger than FDA standards.
- Cooked pasta, muffins, steaks and hamburgers also exceeded USDA portion standards by about 112 percent to almost 500 percent.
- White bread was the exception. The food portion was on par with USDA standards and 44 percent smaller than FDA standards.

Source: Young LR, Nestle M: *The Contribution of Expanding Portion Sizes to the U.S. Obesity Epidemic*. American Journal of Public Health, Vol 92, No. 2, February 2002, pages 246-249. <http://ajph.aphapublications.org/cgi/reprint/92/2/246> The publication did not list FDA standards for steak or hamburgers or USDA standards for french fries or pizza.

Piling on the fruits and vegetables: One key to a healthy weight


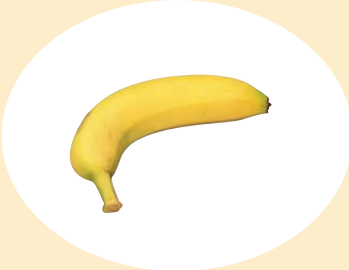
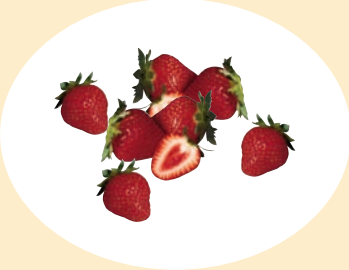

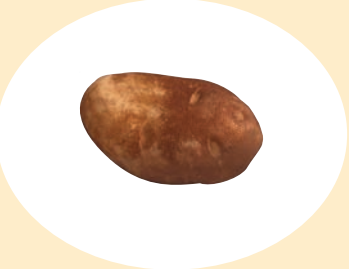

Eating enough fruits and vegetables can help lower individuals' risk for chronic diseases such as cancer and heart disease. But replacing high-calorie foods with low-calorie foods such as fruits and vegetables can also help people manage their weight, according to the Centers for Disease Control and Prevention.¹¹ Here is why:

- Fruits and vegetables have fewer calories than many foods. This is important since people lose weight when they consume fewer calories than they exert.¹²
- An individual is more likely to stop eating when they feel "full." Studies show that the volume of food consumed, rather than the food's caloric content, is more likely to make people feel full.¹³
- The result? Eating more low-calorie foods such as fruits and vegetables could help people feel full and stop eating sooner — leading them to consume fewer calories.¹⁴

How much produce should people eat?

Many adults should consume five cups of fruits and vegetables daily, according to nutritional guidelines set by the U.S. Department of Agriculture's *Dietary Guidelines for Americans, 2005*.¹⁵ To find out how many fruits and vegetables people should consume based on their age, gender and physical activity level, go to www.mypyramid.gov.

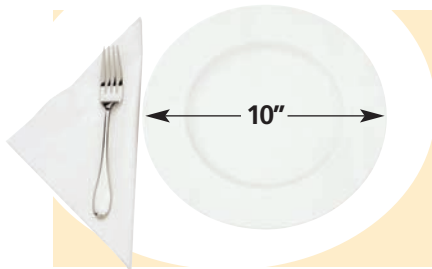
What counts as a cup?

		
1 small apple	1 large banana	8 large strawberries
		
1 cup cooked greens or 2 cups of raw greens	1 medium potato	1 large bell pepper

Source: The Centers for Disease Control and Prevention's *Fruits and Veggies Matter* Web site. www.fruitsandveggiesmatter.gov

Simple steps to a healthy weight

The following strategies may help individuals not overeat and avoid the lure of larger plates and larger portion sizes of food.



1. Eat off of a 10-inch plate for the largest meal of the day. An individual would likely serve themselves 22 percent fewer calories if they ate from a plate that was 10 inches in diameter instead of 12 inches. If an average dinner meal contains 800 calories, a switch to the smaller, 10-inch plate would lead to the average adult losing about 18 pounds a year.¹⁶



2. Use Half Plate Healthy. Fill half the dinner plate with veggies, fruit or salad and half with anything else. Use this tip when going back for seconds. The idea is to fill up on fruits and vegetables instead of higher-calorie foods.¹⁷



3. Minimize large restaurant portions. Many restaurants offer large portions of food. Split entrees with a friend or put half of the meal in a to-go container before it's brought to the table.¹⁸



4. Out of sight, out of mind. Keep excess food such as leftovers from dinner or the bag of potato chips at the back of the refrigerator or on a high shelf. Move healthier foods to the front shelves. People are less likely to eat a large amount of unhealthy foods if they do not have easy access to them.¹⁹

5. Reduce large food packages. Split contents of a large package into several smaller containers. Don't eat right out of the food package and instead put a reasonable amount in a bowl or container.²⁰

Endnotes

- ¹ The Centers for Disease Control and Prevention: *Do Increased Portion Sizes Affect How Much We Eat?* http://www.cdc.gov/nccdphp/dnpa/nutrition/pdf/portion_size_research.pdf
- ² Wansink, Brian. *Mindless Eating: Why We Eat More Than We Think*. (New York, New York: Bantam Dell, 2006), 67.
- ³ The Centers for Disease Control and Prevention: *Do Increased Portion Sizes Affect How Much We Eat?* http://www.cdc.gov/nccdphp/dnpa/nutrition/pdf/portion_size_research.pdf
- ⁴ Wansink B., van Ittersum K, Painter JE: *Ice Cream Illusions: Bowls, Spoons and Self-Served Portion Sizes*. American Journal of Preventive Medicine, Sept. 31, 2006. http://smallplatemovement.org/doc/big_bowls_spoons.pdf and <http://www.ncbi.nlm.nih.gov/pubmed/16905035>
- ⁵ Wansink B, Kim J: *Bad Popcorn in Big Buckets: Portion Size Can Influence Intake as Much as Taste*. Journal of Nutrition Education and Behavior, Vol. 37, Issue 5, September 2005, pages 242-245. http://foodpsychology.cornell.edu/pdf/popcorn_taste.pdf
- ⁶ Rolls B., Roe LS, Meengs JS, Wall DE: *Increasing the portion size of a sandwich increases energy intake*. Journal of the American Dietetic Association, Vol. 104, Issue 3, March 2004, pages 367-372. <http://www.ncbi.nlm.nih.gov/pubmed/14993858>
- ⁷ Rolls BJ, Morris EL, Roe LS: *Portion size of food affects energy intake in normal-weight and overweight men and women*. American Journal of Clinical Nutrition, Vol. 76, No. 6, December 2002, pages 1207-1213. <http://www.ajcn.org/cgi/reprint/76/6/1207>
- ⁸ Pedersen SD, Kang J, Kline G: *Portion Control Plate for Weight Loss in Obese Patients With Type 2 Diabetes Mellitus*. Archives of Internal Medicine, Vol. 167, No. 12, June 25, 2007, pages 1277-1283. <http://archinte.ama-assn.org/cgi/content/full/167/12/1277?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=Pedersen&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT>
- ⁹ The National Heart Lung and Blood Institute: *Portion Distortion! Do you know how food portions have changed in 20 years?* <http://hp2010.nhlbihin.net/portion/>
- ¹⁰ Young LR, Nestle M: *The Contribution of Expanding Portion Sizes to the U.S. Obesity Epidemic*. American Journal of Public Health, Vol 92, No. 2, February 2002, pages 246-249. <http://ajph.aphapublications.org/cgi/reprint/92/2/246>
- ¹¹ The Centers for Disease Control and Prevention: *Can Eating Fruits and Vegetables Help People to Manage Their Weight?* http://www.cdc.gov/nccdphp/dnpa/nutrition/pdf/rtp_practitioner_10_07.pdf
- ¹² Ibid
- ¹³ Ibid
- ¹⁴ Ibid
- ¹⁵ The U.S. Department of Agriculture: *Dietary Guidelines for Americans*, 2005, page 10: <http://www.health.gov/dietaryguidelines/dga2005/document/pdf/DGA2005.pdf>
- ¹⁶ The Web site of the Small Plate Movement™ at www.SmallPlateMovement.org, a Web site based on the research of food psychologist Brian Wansink of the Cornell University Food and Brand Lab. http://smallplatemovement.org/learn_more.htm
- ¹⁷ Wansink, Brian. *Mindless Eating: Why We Eat More Than We Think*. (New York, New York: Bantam Dell, 2006), 178.
- ¹⁸ The Centers for Disease Control and Prevention: *Do Increased Portion Sizes Affect How Much We Eat?* http://www.cdc.gov/nccdphp/dnpa/nutrition/pdf/portion_size_research.pdf
- ¹⁹ Ibid
- ²⁰ Ibid