

# Abdominal Obesity<sup>1</sup>

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Santa Claus, Winnie the Pooh®, and Shrek®...what do these three characters have in common? You probably know them for being jolly and for having extra fat around their waists, also known as “abdominal obesity.” Although this may be cute in fairy tales or movies, abdominal obesity can be a serious health risk in the real world. Abdominal obesity, also known as central adiposity, is a buildup of fat tissue around the waist or midsection. It is a risk factor for certain health conditions. Keep reading to find out more about the health risks of abdominal obesity and ways to prevent or treat it.

## What Is Abdominal Obesity?

The layer of fat located just under the skin is known as subcutaneous fat. Fat near internal organs like your stomach and intestines is known as visceral fat. While both types of fat can lead to increased health risks, visceral fat is thought to be more dangerous (National Institutes of Health, 1998b). Visceral fat is what health professionals usually refer to when they use the term “abdominal obesity.”

Measuring waist circumference is one way to determine if someone has abdominal obesity. The National Institutes of Health defines abdominal obesity as a waist circumference greater than 40 inches in men or greater than 35 inches in women (National Cholesterol Education Program, 2002). Waist circumference is a good indicator of abdominal obesity, but it is not the whole picture.

Waist circumference measurements don't distinguish between subcutaneous fat and visceral fat (Després et al., 2008). Expensive imaging techniques are needed to learn where extra abdominal fat is located (National Institutes of Health, 1998b). However, research has shown that waist circumference is associated with the total amount of fat in the abdomen, so it is the preferred test (National Cholesterol Education Program, 2002; Després et al., 2008).

## Health Risks of Abdominal Obesity

Even though general obesity plays a role in increased risk for diseases, research suggests people with abdominal obesity are at greater risk for the following health problems (Després & Lemieux, 2006; Bergman et al., 2007; Poirier et al., 2005):

- insulin resistance (which can lead to diabetes)
- heart disease
- high blood pressure
- stroke

Abdominal obesity is also a risk factor for metabolic syndrome. Metabolic syndrome is a group of conditions that increases a person's chances of developing coronary heart disease, stroke, and/or type 2 diabetes (A.D.A.M. Medical Encyclopedia, 2012). Someone is diagnosed with metabolic syndrome if he or she has at least three of the

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following conditions (National Cholesterol Education Program, 2002):

- increased waist circumference (> 35 inches in women or > 40 inches in men)
- elevated triglycerides ( $\geq 150$  mg/dL)
- low HDL cholesterol (< 50 mg/dL in women or < 40 mg/dL in men)
- high blood pressure ( $\geq 130/85$  mmHg)
- elevated fasting blood glucose ( $\geq 110$  mg/dL)

## Development of Abdominal Obesity

Just like other types of obesity, abdominal obesity develops when energy (calorie) intake in the form of food is greater than energy output in the form of physical activity. Family history, smoking, and high stress also affect the development of abdominal obesity (Després et al., 2008).

## How Do I Know If I Have Abdominal Obesity?

If you want to measure your waist circumference at home, follow these steps (Weight Control Information Network, 2010):

1. Locate a tape measure.
2. Ask a friend or family member to take the measurement for you; this will give you a more accurate reading.
3. Have them feel for the top of your hip bone (iliac crest). Mark this area with a pen. Repeat this on the other hip.
4. Have them place the tape measure around your abdomen at the marked areas on your hip bones. Be sure that your clothing does not get in the way of taking the measurement.
5. The tape measure should be tight, but not tight enough to pull your skin. The tape measure should also be parallel to the floor.
6. Stand up straight, relax, and exhale.
7. Have them record this measurement. Remember, an ideal measurement is 35 inches or less for women or 40 inches or less for men.

If you are concerned about abdominal obesity, visit your doctor for a checkup.

## Prevention and Treatment

If you want to prevent or treat abdominal obesity, the following tips can help you move toward your goal:

### Weight Loss

Changes in eating and exercise habits can favorably impact your health and waistline. Overweight individuals who lose just 10% of their body weight will decrease their risk for disease (National Institutes of Health, 1998a; National Institutes of Health, 2000). This is a good starting goal if you are ready to change your lifestyle and lose weight. For example, a 200-pound person could make a goal to lose 20 pounds (10% of his or her weight), but should aim to lose only 1–2 pounds per week. If you are trying to lose weight, don't rely only on the numbers on the scale; also remember to re-measure your waist circumference (Després et al., 2008).

Permanent lifestyle changes are needed for lasting improvements in weight loss and health. To stay motivated, find a partner with similar goals or join a weight loss group. Having a support system and/or health care team that includes a doctor or registered dietitian can help in losing weight and keeping it off (National Institutes of Health, 1998a; National Institutes of Health, 2000). Visit your doctor for approval before starting any weight loss program.



Figure 1. To prevent or treat abdominal obesity, change your exercise and eating habits. You can do this by eating healthy foods, controlling portion sizes, and getting regular physical activity. Credits: iStockphoto

### Healthy Eating

Incorporating healthy foods into your diet and controlling your portion sizes are keys to losing weight and decreasing

health risks (National Institutes of Health, 1998a; National Institutes of Health, 2000). To lose 1–2 pounds per week, decrease your calorie intake by 500–1,000 calories daily and increase your physical activity. Monitor your weight weekly to see how you are doing and adjust your calorie intake or activity level as needed. Keep in mind that calorie intakes of less than 1,000 calories per day are not effective for long-term weight loss and should not be used (National Institutes of Health, 1998a; National Institutes of Health, 2000). A diet this low in calories does not provide enough nutrients for a balanced diet.

Building a balanced diet by using resources such as USDA's MyPlate (<http://www.choosemyplate.gov>) can be an effective way to lose weight. For one-on-one help with diet and healthy eating, visit a registered dietitian. See the resources below for more information. Also, the Family and Consumer Sciences agent at your local Extension office may have written information or nutrition classes for you to attend.

## Physical Activity

Physical activity helps with weight loss and maintenance, and can reduce risks for other health problems associated with obesity such as high blood pressure (National Institutes of Health, 1998a; National Institutes of Health, 2000). Consistent physical activity also can have a positive effect on your mood (National Institutes of Health, 1998a).

When beginning a physical activity regimen, start slowly and work up to 30–45 minutes of moderate physical activity 3–5 days per week (National Institutes of Health, 1998a; National Institutes of Health, 2000). Moderate physical activity includes walking briskly, playing a sport, or dancing. Choose activities you enjoy to increase your chances of staying active.

## Weight Maintenance

After you lose the weight you and your health care team agreed on, the next step is keeping the weight off. Maintaining weight loss is important to maintaining your health. If weight gain occurs, the same risk factors that were present before you lost weight can reappear (National Institutes of Health, 1998a; National Institutes of Health, 2000).

Weight loss maintenance is most successful when you use the same steps used for weight loss — diet and physical activity (National Institutes of Health, 1998a; National Institutes of Health, 2000). Staying in contact with a registered dietitian, doctor, or other member of your health care team can also increase your chance of success with

weight maintenance (National Institutes of Health, 1998a; National Institutes of Health, 2000).



Figure 2. Getting regular physical activity is one key to preventing abdominal obesity. You should speak with your doctor before starting any exercise regimen.

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## Summary

Abdominal obesity is defined as having a waist circumference of greater than 35 inches in women and greater than 40 inches in men. If you have abdominal obesity, you have an increased risk of health conditions like heart disease, insulin resistance (which can result in diabetes), and stroke. You can decrease your risk of negative health outcomes related to abdominal obesity by losing weight and keeping it off. These two goals can be achieved by healthy eating and regular physical activity. Visit your health care provider for more information about your specific health risks and how to get started on your journey to health.

## Recommended Websites

- *Academy of Nutrition and Dietetics (formerly the American Dietetic Association)* (<http://www.eatright.org/>) – This site provides information about food, nutrition, and nutrition professionals.
- *Florida Dietetic Association* (<http://www.eatrightflorida.org>) – This site provides information about registered dietitians (RD) in Florida. You can also call at 850-386-8850.

- USDA's MyPlate (<http://www.choosemyplate.gov/>) – This site provides information about MyPlate and the Dietary Guidelines for Americans.

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