It Starts with Body Weight

Heather Norman-Burgdolf, Dietetics and Human Nutrition

According to the Centers for Disease Control and Prevention (2016), over a third (36.5 percent) of all adults and almost one-fifth (17 percent) of the children in the United States are considered obese. This major health problem affects some states more than others. Out of all 50 states, Kentucky has the fifth highest level of adult obesity in the country. Approximately 1.5 million adults in Kentucky are obese.

Why do we have body fat?

You've probably heard that fat is bad for you, but we need certain amounts of fat in our body to be healthy. Body fat serves many purposes, including protecting and cushioning internal organs, especially during a fall. It makes chemical signals that regulate how much food we eat and the energy we use to live. Throughout history, fat has allowed humans to store energy for times when food was unavailable. But current obesity research indicates that too much body fat can negatively affect health.

How is obesity harmful to the body?

At a healthy weight, individuals have many health benefits including improved sleep, increased energy, and a reduction in risk of several diseases. Increased body fat may lead to high amounts of fat and cholesterol in the blood, high blood pressure, and high blood sugar. Obese adults and children are at increased risk for developing Type 2 diabetes, heart disease, and several other conditions.

How do we determine obesity?

Obesity in children and adults is determined differently. Because children are growing and body weight changes from year to year, other factors like age and sex are used to determine if a child or teen is at a healthy weight. For both children and adults, the most common as-

sessment of overweight and obesity is using the Body Mass Index (BMI).

BMI-for-age for Children and Teens (ages 2-19)

Although BMI-for-age does not directly measure body fat, it gives a good estimate of body fat based on height, weight, age, and sex. Because body weight is changing constantly in childhood, it is important to use all of these factors in determining body fat so that comparisons can be made to children of the same age and sex instead of to all children and teens.

A BMI-for-age calculator for children and teens can be found at
https://nccd.cdc.gov/dnpabmi/Calculator.aspx.

Table 1. BMI-for-age for children and teens.

Underweight	Less than the 5th percentile
Healthy Weight	5th percentile to less than the 85th percentile
Overweight	85th percentile to less than the 95th percentile
Obese	95th percentile and higher

BMI for Adults

BMI for adults is used as a tool to estimate the amount of body fat based on height and weight. For adults, age, and sex is not required to estimate body fat content using BMI. Body weight should remain constant in a healthy adult's life; therefore, only one scale is used for both men and women of all ages.

Table 2. BMI for adults.

Underweight	Below 18.5
Healthy Weight	18.5-24.9
Overweight	25.0-29.9
Obese	30.0-39.9
Extreme Obesity	40.0 and Above

For example, a man or woman who weighs 170 pounds and is 5 foot 6 inches tall has a BMI of 27.4. This person would be considered overweight with this weight and height. A BMI calculator for adults can be found at http://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmicalc.htm.

Waist Circumference for Adults

Another reliable way to measure body fat in adults is by measuring waist circumference. Measuring waist circumference serves as a good tool for determining health risks associated with increased body fat within the stomach area. Abdominal or belly fat is linked to increased risk of Type 2 diabetes and heart disease which will be discussed later.

To determine risk in adults, use the following chart:

Table 3. Waist circumference.

Females	Greater than 35 inches
Males	Greater than 40 inches

Overweight vs. Obesity

When the body stores too much fat, we call it either **overweight** or **obese**. Although both terms mean body weight greater than what is considered healthy, obesity is defined as body fat at least 20 percent above a healthy body weight. People are able to store body fat in many different regions of the body. Research has shown that too much fat within the stomach and around our internal organs has the most harmful effect on our overall health.

What Causes Obesity?

The most common cause of obesity is poor energy balance. In order to maintain a healthy weight, the amount of energy you take in must equal the amount of energy that you burn. **Energy in** includes all the calories and energy we receive from eating and drinking. **Energy out** is the amount of energy and calories we burn by our normal body functions and physical activity.

When an individual consumes more energy or calories than they use, the body stores excess energy as fat. With easier access to high-calorie foods and less active lifestyles, American children and adults are experiencing an increased rate of overweight and obesity.

Energy In equals Energy Out → Healthy Weight

Energy In is greater than Energy Out → Weight Gain

Energy In is less than Energy Out → Weight Loss

Healthy food choices and physical activity help individuals control weight. But there are other factors around us that may cause weight gain, including

- Having family members who are overweight or obese
- Where we live, work, and go to school
- Opportunities around us to be physically active in a safe environment
- What foods are available to us in our homes and communities
- Getting older
- Smoking
- Some health conditions
- Side effects of certain medications

Being Healthy vs. Being Normal Weight

Just because a person is at a normal weight or "skinny" does not mean that they are healthy. It is important to remember that people at a normal weight can also have serious health problems related to poor nutrition and lack of physical activity as well. Being healthy at a normal weight is a result of a well-balanced lifestyle, including good nutrition, physical activity, and regular visits to see a doctor or healthcare provider.

What can *you* do to prevent or reduce obesity?

Many of the common causes of obesity are things we can control. This means that decisions we make each day can reduce our risk of becoming obese. Here are a few tips on how to get to and/or stay at a healthy weight:

Choose healthy foods. A well-balanced, healthy diet ensures the body is receiving all the nutrients it needs to work properly. These nutrients include protein, carbohydrates, healthy fats, vitamins, minerals, and other healthy substances, like phytochemicals. A diet including foods from all food groups is necessary in order to receive all of these important nutrients. Using the United States Department of Agriculture's (USDA) MyPlate (https://www.choosemyplate.gov/) as a food guide will make healthy food choices easier.

The following foods low in calories and high in nutrients should be a part of a well-balanced diet:

- Fruits are low in sodium, fat, and calories and high in fiber, Vitamin C, folate, and potassium.

- Vegetables are low in calories and fat and high in fiber, Vitamin C, Vitamin A, folate, and potassium.

- Lean protein foods are low in fat and are rich in nutrients necessary for bodies to function.

- Whole grains, are a good source of fiber, B Vitamins, iron, and magnesium.

- Low-fat dairy products are an excellent source of calcium. Calcium can also be found in other dairy-free foods.

To prevent or reduce obesity, the following foods high in calories and very little nutrition should be limited:

- Baked goods high in sugar and unhealthy fats like cookies, pies, and cakes

- Snack foods like crackers and chips high in calories, fat, and sodium

- Highly processed meats like hotdogs and lunchmeat are often high in sodium

- Fried foods are much higher in fat than baked or grilled foods

- Sugar-sweetened beverages

Nutrition is different for everyone and depends on age, height, weight, and physical activity level. When building a healthy diet, remember **variety** in the foods you eat and correct **portion sizes** guarantee you are getting the nutrition you need

at the right amounts. It may be necessary to talk to your doctor or a registered dietitian (RDN) about healthy food choices to learn what is right for you or a family member. You can even advocate for healthier food options at your school or work place.

Be physically active. It is recommended that youth ages 6-17 have 60 minutes of physical activity each day and adults have 150 minutes of physical activity a week. Physical activity causes the body to burn energy for fuel. Physical activity is important for reaching and maintaining a heathy weight and increasing overall fitness. Being strong and fit, regardless of body weight, can also lower the risk of many chronic diseases.

Some fun ideas for physical activity are listed below:

- Go for a walk or run
- Play a sport
- Ride your bike
- Have a dance party
- Play charades
- Swim at the nearby pool
- Start a garden together
- Help out with yard work
- Walk the dog
- Explore a nearby park or walking trail
- Have weekly goals and competitions for most steps taken, active minutes, etc.

Build your skills. Think about how the choices you make about food and physical activity impact your health. Develop skills to make a healthy lifestyle easier and to support healthy lifestyle choices in your family. These skills may include:

- Learning how to store and prepare new fruits and vegetables

- Reading nutrition facts panel labels

- Planning meals in advance

- Shopping for healthy foods on a budget

- Trying a new recipe

- Learning a new sport or exercise

- Understanding how nutrition and exercise help our bodies

- Advocate for your school, worksite, or community to provide easy options to eat healthy and safe places to be physically active

How can I help my family member make healthy decisions?

- Be supportive. Making healthy lifestyle choices can be hard and sometimes it is easier if you have someone to do it with you. Family influence can be very powerful when making positive change.

- Encourage a healthy diet and talk more about food choices. Try a new recipe together. A diet high in healthy foods is a great way to help reach and maintain a healthy body weight.

- Get moving. Find simple ways to increase daily physical activity, whether it be a short walk down the street, working in the garden, or parking a bit farther away the next time you go to the store.

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