



Body Composition

Body Fatness



# The Facts About Body Fatness

- ✦ Body fatness is a part of health-related physical fitness.
- ✦ Body fatness refers to the percentage of your total body that is comprised of fat tissue.
- ✦ It is important to have optimal amounts of body fat for better health.

# Body Composition

- ✦ All the tissues that make up your body are called your body composition.
- ✦ Lean tissue includes muscles, bones, skin, and body organs.
- ✦ People who do regular physical activity have a larger percentage of lean body weight



# Factors Influencing Body Fatness

## ✦ Heredity

You inherit your body type from your parents. Some people are born with tendency to be lean, muscular, or fat.

People who do regular physical activity typically have a larger percentage of lean body weight.

## ✦ Metabolism

Your basal metabolism is the amount of energy your body uses just to keep you living. This energy is measured in units called Calories. Some people have higher basal metabolism than others.

# Factors Influencing Body Fatness

## ✦ **Maturation**

As you grow older and the hormone levels in the body begin to change.

During the teen years, female hormones cause girls to develop more body fatness than boys.

Because of male hormones, teenage boys have greater muscle development than girls.

## ✦ **Early Fatness**

Children who are too fat develop extra fat cells that make it more difficult to control fatness levels later in life. Keeping body fatness levels within the good fitness zone during the childhood and teen years will help keep body fat levels in check throughout life.

# Factors Influencing Body Fatness

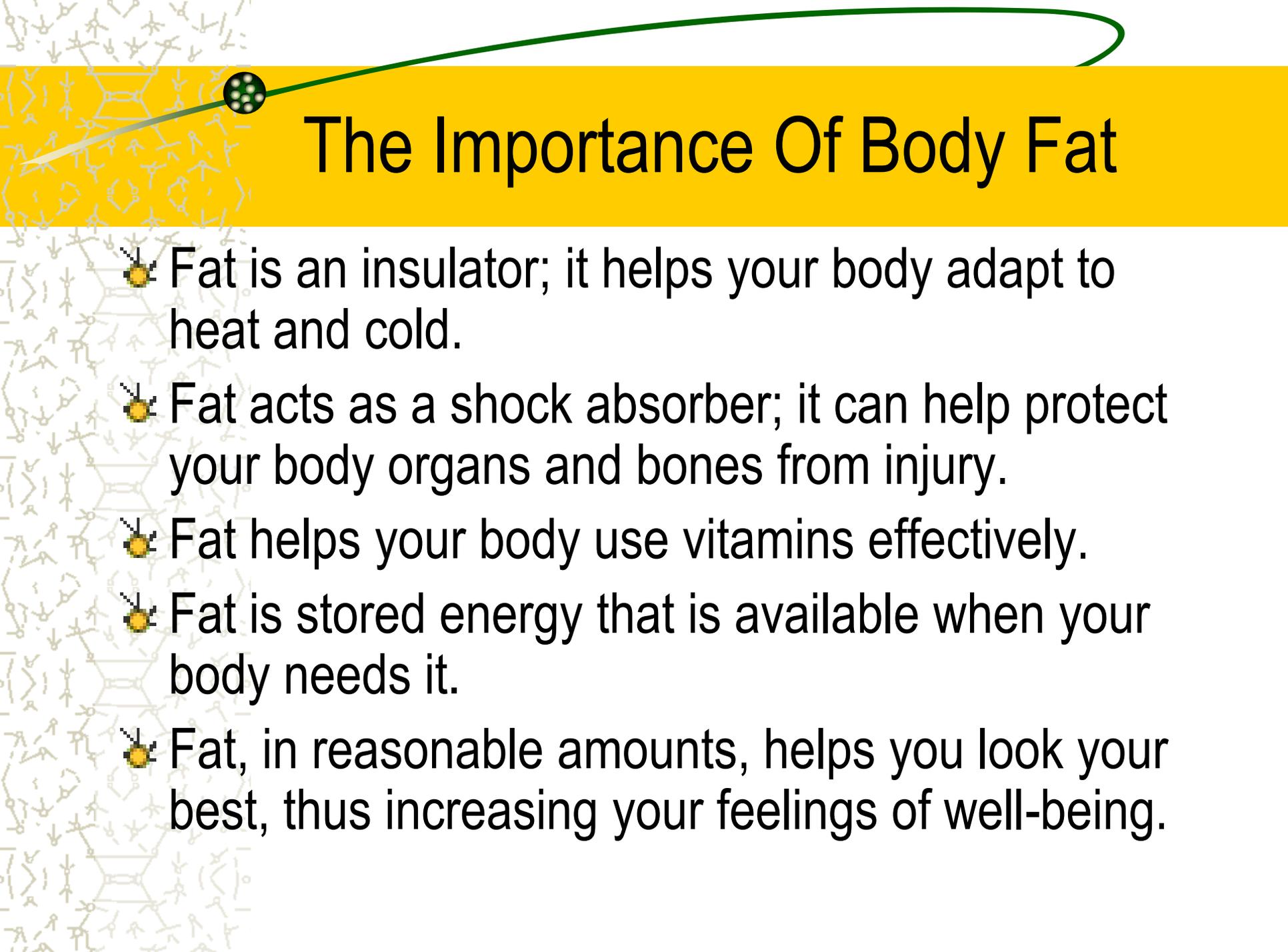
## 🌟 **Diet**

The amount of energy in foods is measured in Calories.

Most males need more Calories than females per day because they are larger and have more muscle mass.

## 🌟 **Physical Activity**

Your body burns Calories for energy. The more vigorous activity you do, the more energy your body uses and the more Calories you need. An inactive person uses less energy each day than active person and therefore needs to consume fewer Calories.



# The Importance Of Body Fat

- ✖ Fat is an insulator; it helps your body adapt to heat and cold.
- ✖ Fat acts as a shock absorber; it can help protect your body organs and bones from injury.
- ✖ Fat helps your body use vitamins effectively.
- ✖ Fat is stored energy that is available when your body needs it.
- ✖ Fat, in reasonable amounts, helps you look your best, thus increasing your feelings of well-being.

# Body Fatness: How Much Is Good?

- ✦ About one half of your body fat is located deep within your body. The remaining fat is between your skin and muscles.
- ✦ A fit person has right amount of body fat – neither too much nor too little.
- ✦ Females generally have a higher percentage of body fatness than males; over 35% is considered obese for females, and over 30% is considered obese for males.

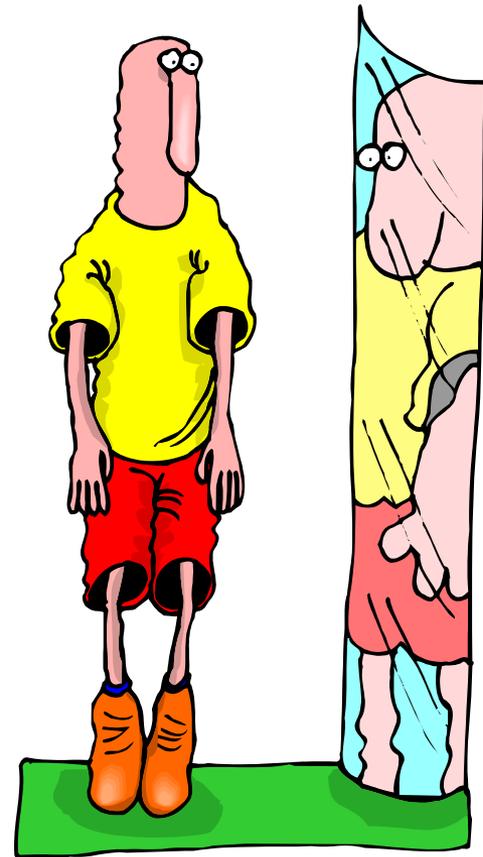
# Weight Versus Fat

✦ The terms underweight and overweight do not provide a great deal of information about fitness or about person's body composition. Underweight and overweight refer how much you weigh compare to others.

✦ Muscles weigh more than fat. You can weigh more than someone else of the same size because you are more muscular and have less body fat than the other person. You can weigh less than someone else of the same size because you have smaller bones.

# Overfat and Underfat

- ✦ The terms overfat and underfat are very useful because they describe how much of your total body weight is made up of fat.
- ✦ Underfat means having too little body fat; overfat means having too much body fat
- ✦ Obesity is a term used to describe people who are very overfat.



# Too Little Body fat

- ✦ The minimum amount of body fatness is called essential body fat, because if fat levels in the body drop below this amount, health problems result.
- ✦ Being underfat can result in abnormal functioning of various body organs. In fact, exceptionally low body fat levels can result in serious health problems, particularly among teenagers.

# Eating Disorders

- ✦ **Anorexia nervosa** is a serious eating disorder. A person who has this disorder severely restricts the amount of food he or she eats in an attempt to be exceptionally underfat, and does extensive physical activity to further lower his/her level of body fat to extremely dangerous levels.
- ✦ Anorexia is a life-threatening condition, and those who have the condition need immediate help.

# Eating Disorders

✦ **Anorexia athletica** is most common among athletes involved in sports such as gymnastics, dance, skating, and wrestling in which a low body weight is desirable. This condition can lead to anorexia nervosa.

✦ **Bulimia** is an eating disorder in which a person does binge eating, or eats a very large amount of foods within a short of period of time. Bingeing is followed by purging. Techniques of purging includes vomiting and the use of laxatives to rid the body of food and prevent its digestion.

# Overfatness, Health, and Wellness

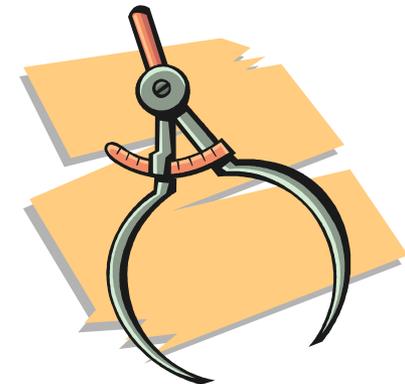
- ✦ Having too much fat can be unhealthful. People who are overfat have a higher risk of a heart disease, high blood pressure, diabetes, and other diseases. Being overfat also reduces a person's chances of successful surgery. An overfat person tires more quickly and easily than a lean person, and he/she might be less efficient in work and recreation.



# Body Fat Assessment

💡 **Underwater Weighing:**  
the body is immersed in a tank of water and then weighed. Lean people lean more under water; they sink. People with more fat weigh less under water; they float. Measurements of lung capacity are also taken because the amount of air in lungs influences the weight.

💡 **Skinfold Measurements:**  
the body fatness is determined by measuring the thickness of skinfolds, the fat under skin. A special instrument called a caliper is used to measure skinfold thickness.



# Body Fat Assessment

- ✦ **Body Measurements:** One procedure uses weight and waist measures for males and height and hip measurements for females.
- ✦ **Body Mass Index:** This index is better indicator than height and weight alone, but it does not give as accurate an assessment of body fatness as underwater weighing or skinfold measurements.

# Body Fat Assessment

- ✦ **Height-Weight Charts:** The common method of assessing body weight is through the use of height-weight tables. The tables list normal weight ranges for people according to age, height, and sex, but it does not assess body fatness.
- ✦ **Waist-to-Hip Ratio:** Evidence indicate that people with a very large waist compared to hip size tend to have more fat inside the body and may be at risk for health problems.
- ✦ **Other Measurements:** X rays, computers, and other machines have been developed to test body fatness.