

Personal Fitness

Class Discussion

- * How does a person benefit from physical activity?
- * What are some activities that you participate in to stay fit and healthy?
- * How many of you have parents who exercise regularly?

Benefits of Fitness

- * Improved appearance
- * Increased energy levels
- * Happier with how you look
- * Stronger heart
- * Better physical performance
- * Avoid injuries
- * Better self-control
- * Sleep better
- * Improved health
- * Lowers levels of fat
- * Increased life expectancy

Health Related Components



- Muscular Strength
- Muscular Endurance
- Cardiovascular Endurance
- Flexibility
- Body Composition

We can participate in many sports in high school, but most of us will not continue to be on an organized team after graduation.

Lifetime Activity are activities that you can participate in during any phase of your lifetime.

Examples:

- Golf
- Tennis
- Walk/Jog
- Biking
- Swimming
- Group Fitness



Body Composition



[*Link to Obesity Trends](#)

What is body composition?

- X A. How much fat you have.
- X B. How much muscle you have.
- X C. How much you weigh.
- ✓ D. How much fat in relation to non fat you have.

Body Composition

THE RELATIVE COMPARISON OF BODY FAT TO LEAN BODY MASS (MUSCLE, BONE, ORGANS).

OR

FAT WEIGHT COMPARED TO FAT FREE WEIGHT

BODY WEIGHT = 150 LBS.


%BODY FAT = 20%

FAT WEIGHT = 30 LBS

FAT FREE WEIGHT = 120 LBS

Body Types

- * **Endomorph** - The naturally large person characterized with a round face, wide hips, big bones, slow metabolism and high number of fat cells.
- * **Mesomorph** - The naturally muscular person with wide shoulders, small waist, athletic build, low body fat percentage with an increased metabolism.
- * **Ectomorph** - The skinny person with a linear appearance, small muscles, ultra fast metabolism, low body fat, narrow shoulders, hips and waist.




We cannot change our body type, we can only make the most of what we are given (**genetic makeup**).

Getting the most out of our body types depends on our **diet and exercise** regime.


This person is an example of...

- A. Endomorph
- B. Ectomorph
- C. Mesomorph




This person is an example of...

- A. Endomorph
- B. Ectomorph
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This person is an example of...

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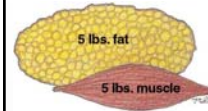
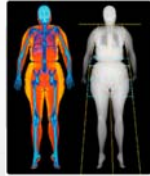


Body Fat

- * *NORMAL PHYSIOLOGICAL FUNCTIONING*
- * *PROTECTION OF ORGANS FROM BODILY HARM*
- * *INSULATION AND BODY TEMPERATURE REGULATION*
- * *ENERGY STORAGE*

Why know your body composition??

- EVALUATE YOUR HEALTH
- PLAN A BETTER PROGRAM FOR WEIGHT MANAGEMENT
- EVALUATE YOUR PROGRESS ON EXERCISE AND NUTRITION PROGRAM



Fat and Muscle are two distinctly different things.

One **CAN NOT** change into the other!

	MUSCLE	FAT
Properties:	Fibrous contractible and connective tissue	Lipids, adipose tissue
Weight / Density:	Heavier, more dense	Lighter, less dense
Function:	Moves skeleton (body)	Protection, insulation
Change in response to exercise:	Increases with exercise,	Decrease with exercise



METHODS OF ESTIMATING BODY COMPOSITION

Skinfold

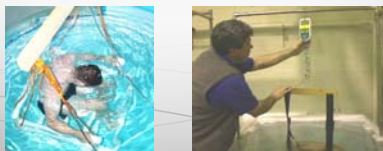
FAT TISSUE MEASURED WITH A CALIPER AT VARIOUS LANDMARKS ON THE BODY.



Underwater Weighing

BODY VOLUME DETERMINED BY WATER DISPLACED.

BODY DENSITY DETERMINED BY BODY WEIGHT IN WATER.



Bioelectrical Impedance

INSTRUMENT THAT MEASURES THE SPEED OF ELECTRICAL IMPULSES THROUGH THE BODY

MUSCLE IS A BETTER CONDUCTOR THAN FAT



Body Mass Index (BMI)

- * Body Mass Index (BMI) is a number calculated from a person's weight and height.
- * BMI is still widely used to screen for weight categories that may lead to health problems.
- * Does not take into account for composition of the overall weight.

BMI Body Comparison

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How much does BMI really tell you?

Height/Weight Chart

OLD METHOD BASED ON AVERAGES FOR FRAME SIZE

NO CONSIDERATION FOR PERCENT BODY FAT

■ Normal weight
 ■ Overweight
 ■ Obese

2 TYPES OF BODY FAT

ESSENTIAL FAT

FAT THAT IS STORED IN THE ORGANS AND TISSUES OF THE BODY.

ESSENTIAL FAT IS THE BARE MINIMUM FAT THAT IS REQUIRED FOR NORMAL BODY FUNCTIONING.

STORAGE FAT

ADIPOSE TISSUE FOR INSULATION, PROTECTION, AND TEMPERATURE REGULATION

	MEN	WOMEN
<u>ESSENTIAL FAT</u>	4% - 6%	10% - 12% <small>(CHILD BEARING)</small>
<u>STORAGE FAT</u>	8% - 12%	same 8% - 12%
<u>RECOMMENDED % BODY FAT</u>	12% - 18%	18% - 24%

EXCESS STORAGE FAT CONTRIBUTES TO A HIGHER RISK FOR HEART DISEASE AND OTHER HEALTH RELATED PROBLEMS

FAT CELL FORMATION

of Fat Cells

Rapid Formation
 1st few years
 The number of Fat Cells are set
 But...size of cells can increase!
 EARLY 20'S.

Last mo. of fetal development Approx. age 2 through early 20's