

7th GRADE LECTURES
LECTURE 1
INTRODUCTION TO THE FITNESS CENTER

MUSCLES: hamstrings (back of upper leg) & quadriceps (thigh)

1. Do not write on the equipment, floors, mats, etc.
2. Do not use the equipment without teacher supervision.
3. Use the equipment as instructed. The hip machine is not a swing.
4. Technique is more important than weight.
 - A. good posture
 - B. make proper seat adjustments
 - C. full range of motion
 - D. align pivot point to body's pivot point (joint)
5. Rep = repetition = lifting weight once = 3 seconds per rep
6. Set = number of reps done at one time
7. Do not max out. That can damage your joints.
8. Do not hold your breath; exhale when lift lifting (blow the weight up); inhale when the weight goes down
9. Fully insert the key making sure it points down. Do not remove key if weights are suspended. Do not attempt to release jammed weights. Notify teacher.
10. Do not drop the weights. They can break.
11. Do not put ANYTHING (pens, pencils, fingers, etc) in between the weights
12. Do not touch the machine while someone else is lifting.

LECTURE 2 (7th) PERSONAL FITNESS

MUSCLES: bicep (front of upper arm) & tricep (back of upper arm)

- I. Total fitness (PIES)
 - A. Physical - your body
 - B. Intellectual - your mind
 - C. Emotional - your feelings
 - D. Social - your behavior
 - E. Balance each piece of your PIES; some people are well developed in some areas and not in others (Dennis Rodman, "bookworms")

- II. Components of physical fitness
 - A. Cardiovascular fitness - how well the heart and lungs work in delivering oxygen to working muscles
 - B. Muscular strength - force a muscle can exert
 - C. Muscular endurance - ability of a muscle to continue working for a long time
 - D. Flexibility - moving a joint through a full range of motion
 - E. Body Composition - percent of body weight that is fat compared to that which is not fat such as muscles and bones

- III. Habits of good health (SEE yourself being healthy)
 - A. Sleep (8-9 hours a night)
 - B. Eat (good balance of a variety of foods including 5 a day fruits and veggies)
 - C. Exercise (60 minutes/day)

LECTURE 3 (7th)
CARDIOVASCULAR FITNESS

MUSCLES: pectoralis major (chest) & trapezius (upper back and neck)

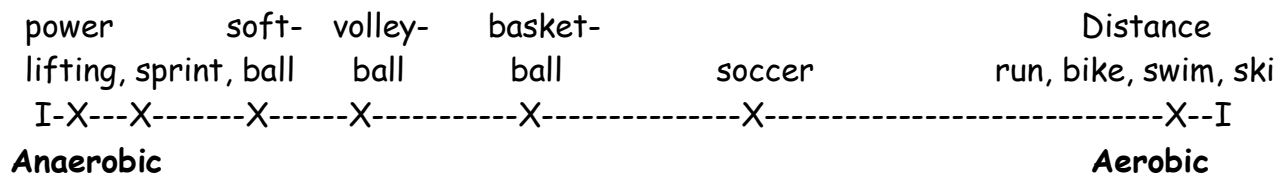
I. Definitions

- A. cardio = heart; vascular = vessels of the circulatory system
- B. CV system = heart + lungs + vessels (circulatory + respiratory systems)
- C. CV fitness - ability to provide oxygen to working muscles over a longer period of time
- D. CV disease - leading cause of death in the US; *more deaths than all other causes combined*

II. Activities that reduce risk of CV disease

- A. Aerobic - with oxygen
 - 1. 50% - 80% intensity level
 - 2. continuous steady pace for longer period of time
- B. Anaerobic - without oxygen
 - 1. 90 - 100% intensity
 - 2. fast, powerful lasting for a short time

III. Continuum



IV. Parts of an aerobic workout

- A. Warmup
 - 1. prepares body for workout *by increasing heart rate which increases blood flow which increases muscle temperature*
 - 2. improves performance
 - 3. decreases injury
- B. Aerobic workout
 - 1. must involve the large muscles
 - 2. breathe heavier but not out of breath (talk test)
 - 3. heart must be in target heart rate zone of 130 - 180 beats per minute
 - 4. continuous for at least 20 minutes 6 times per week
 - 5. sweat
- C. Cool down
 - 1. *valves in legs help return blood to heart only when muscles are working*
 - 2. *sitting right after exercise while heart rate is up causes blood to pool in legs*
 - 3. continue walking until heart rate returns to normal to protect heart, brain and muscles of the legs
 - 4. stretch warm muscles

LECTURE 4 (7th)

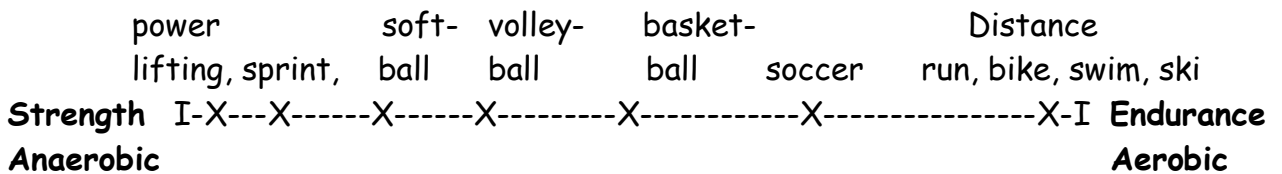
MUSCULAR STRENGTH AND ENDURANCE

MUSCLES: deltoid (shoulder) & latissimus dorsi (middle back)

I. Definitions

- A. Muscular strength - amount of force that a muscle can exert in one contraction; allows individual to lift heavy load (backpacks, furniture)
- B. Muscular endurance - ability of a muscle to continue working for a longer time; allows individual to keep going in an activity (long bike ride)

II. Continuum



Compare to anaerobic/aerobic continuum

III. Girls and weight training - girls do not bulk up like boys

- A. lack of male hormone testosterone
- B. have 1/3 less muscle fiber

LECTURE 5 (7th)

FLEXIBILITY

MUSCLES: hip adductors (inner thigh), hip abductors (outer hip), gluteus maximus (buns), hip flexors (front of hip)

I. Flexibility is the ability to move the body's joints through a full range of motion

II. Benefits

- A. improves performance
- B. reduces risk of injury
- C. reduces muscle soreness
- D. decreases stress and tension - both physically and emotionally
- E. improves posture
- F. helps reduce low back pain

III. Ways to stretch

A. Dynamic

- 1. with movement
- 2. examples are warm-up throws, warm-up laps, warm-up set, form drills
- 3. warm-up dynamically to avoid injury

B. Static

- 1. without movement
- 2. hold for 15 seconds
- 3. examples are quad stretch, butterfly, tricep stretch, heel cord stretch
- 4. cool down statically when muscles are warm

C. Ballistic

- 1. bounce
- 2. avoid as it can damage muscles

IV. Safety

- A. stretch within own limits to avoid injury caused by overstretching
- B. avoid outside hurdle stretch as it can cause knee damage; do inside hurdle
- C. avoid having knee tighter than a 90 degree angle when weight bearing

V. Treatment for injury

R I C E

Rest

Ice

Compression

control swelling

Elevation

My Pyramid Activity

Name _____ Period _____ Score _____

Log onto mypyramid.gov. Using the See What's Available on the right side menu bar, answer the following questions.

1. What are the eight sections of My Pyramid?

_____	_____
_____	_____
_____	_____
_____	_____

2. What are two tips to help us eat whole grains?

3. What are two health benefits from eating vegetables?

4. How much fruit should someone your age and gender consume each day if they get less than 30 minutes of activity per day? _____

5. What are the four types of food included in the milk group?

_____	_____
_____	_____

6. What six types of foods are included in the meat/beans group?

_____	_____
_____	_____
_____	_____

7. How are oils different from solid fats? _____

8. In your own words, what are discretionary calories? _____

9. How many discretionary calories are in a 20-ounce bottle of regular soda? _____

10. Name two moderate physical activities. _____

11. Name two vigorous physical activities. _____

12. List five reasons why physical activities are so important.

13. What are four tips for eating healthier when eating out?

14. Using the menu bar on the right side of the screen, what are four healthy eating tips?

BODY COMPOSITION

MUSCLES: rectus abdominus (stomach) & back extensors (lower back)

- I. Body composition is the percentage of body weight that is fat compared to lean.
 - A. Lean body mass - muscles, bones, organs, fluid
 - B. Healthy body composition
 1. males - 9% - 20%
 2. females - 14% - 26%
- II. Factors that influence body composition
 - A. Heredity
 - B. Metabolism
 1. the amount of energy your body needs to function at rest
 2. affected by age, heredity, muscle mass
 - C. Gender
 - D. Early fat composition
 - E. Diet (see Lecture 6)
 - F. Physical activity - 60 minutes/day