

# INTRO TO FITNESS EXAM REVIEW GUIDE!!

**PARENT SIGNATURE: \_\_\_\_\_ = 25 Extra Credit Points**

- \* There are five **HEALTH-RELATED COMPONENTS** of physical fitness: flexibility, cardiovascular fitness, muscular strength, muscular endurance, and body composition. Remember, fitness is for everyone. You do not have to be a good athlete to be physically fit. If you exercise regularly and follow basic training principles, you will improve your health-related fitness.
- \* **FLEXIBILITY** means the range of movement possible at various joints. Stretching all parts of your body will help to attain the best flexibility. The best way to stretch your muscles would be to have someone else stretch you or by using a rope (manual stretch), or by doing active stretching. If you become injured, the best way to care for that injury is by performing **RICE** - Rest Ice Compression Elevation to that particular injury.
- \* **CARDIOVASCULAR FITNESS** deals with the ability of the heart, lungs, blood vessels, and the respiratory system to supply oxygen and necessary fuel to the muscles during exercise. *The best type of exercise for improving cardiovascular fitness is aerobic exercise.* Aerobic exercises are those activities which force the body to use a large amount of oxygen for a sustained period of time. Sustained means the event should be done for at least 15-30 minutes to get the important benefits. *Examples of aerobic exercises are jogging, cycling, swimming, jumping rope, aerobics, tae bo, etc.*
- \* **MUSCULAR STRENGTH** is the ability of muscles to exert a force one time. Examples of exercises would be pull-ups, short sprints, and **MAX-outs** (one lift of heaviest weight) of bench pressing.
- \* **MUSCULAR ENDURANCE** is the ability to use muscles for long periods of time. Muscular strength and endurance are two components which are very closely related and are of extreme importance to teenagers. Sit-ups, pull-ups, push-ups, weight lifting, wall sits, and many other activities that require strength along with endurance done in repetitions are good for you to do to improve in these areas.
- \* **BODY COMPOSITION** is the ratio of fat to muscle, bone, and other tissues that compose/make up your body. A certain amount of body fat is needed for good health. Extremely high or low amounts of body fat can cause health problems. Most young adults desire a low percentage of body fat. To reduce body fat and gain muscle, aerobic activities along with strengthening exercises are great to do. Eating a well-balanced diet is also beneficial in achieving and maintaining a healthy body composition. The **MOST EFFECTIVE METHOD** of measure body fat percentage is: **HYDROSTATIC WEIGHING**.
- \* The best and **MOST HEALTHY** way to maintain an ideal body weight is to maintain an active level of physical activity and eat a well-balanced diet.
- \* Describe two types of eating disorders.
  - ANOREXIA NERVOSA** - Believing you are fat, being fat-phobic, and starving yourself as much as possible.
  - BULIMIA NERVOSA** - Binging on as much food as possible (mostly junk food), then feeling guilty about it and purging (throwing up) to feel better about yourself.
- \* **CARDIOVASCULAR FITNESS** is improved by an exercise program which strengthens the heart, lungs, and blood vessels. More examples of cardiovascular fitness include: running the mile, running cross country, swimming, bike riding, and running stairs. Cardiovascular fitness also improves **MUSCULAR ENDURANCE** (how long your muscles can go, over and over and over again). The best types of physical activity that describe cardiovascular endurance would be vigorous activity involving many muscle groups working at the same time for a long period of time The best example of cardiovascular fitness would be a *four-mile run*.
- \* You can keep your **CARDIOVASCULAR SYSTEM** healthy by *avoidance of smoking, regular physical activity, proper nutrition, and avoidance of stress*.
- \* **OXYGEN** from the air we breathe must be supplied to working muscles during endurance activities such as running or swimming.
- \* **SODIUM** (a.k.a. salt) is a mineral that is lost due to heavy sweating during vigorous exercise. That is why your sweat tastes salty.
- \* **OBESITY** means that you are *severely overweight*. Obesity is currently on the rise in the United States. Obese people are more likely to develop serious and chronic diseases such as *heart disease, diabetes, cancer, high blood pressure, and stroke*. Obese people can expect a shorter life expectancy/increased death rates. Obesity is **NOT** caused by the genes you get from your parents for all people.
- \* A **WELL-TRAINED HEART** typically beats **SLOWER** than an untrained heart at rest. The well-trained heart is larger in physical size than it would be if the person was untrained. The average adult resting heart rate is 72 beats per minute.
- \* People in good physical condition have a slower heart rate at rest because the strength of the heart muscle has increased and more blood is pumped with each beat. People in poor condition have a faster resting heart rate.

\* **HEART DISEASE** (a.k.a. Coronary artery disease) & **HEART ATTACKS** are most likely caused by **high body fat, high blood pressure, high cholesterol, smoking, and family history**. Heart disease is the leading cause of death in the U.S. **Heart attacks are NOT caused by overdoing exercise**. The term used to describe when the heart stops beating is **CARDIAC ARREST**. *The best way to lower your risk of cardiovascular problems and/or heart attack is to stay physically active.*

\* **PHYSICAL FITNESS** is a reversible quality that requires physical activity throughout your lifetime to maintain it. *It is not permanent*. You must work at it from youth to adulthood in order to maintain your fitness and stay healthy.

\* The **NATIONAL LEVEL OF FITNESS** is currently lowering because of an increase in food consumption above daily requirements (people are eating too much e.g. Super-sizing portions), an increase in the number of sedentary or inactive jobs (e.g.. sitting around at a computer all day long), and a decrease in the physical effort required for daily living (e.g.. driving everywhere instead of walking).

\* **CARDIOVASCULAR BENEFITS OF EXERCISE:**

- Active people have less heart disease and are less likely to die from heart attacks, type II diabetes, cancer, & stroke
- Active people tend to develop extra coronary arteries in the heart (help to deliver oxygen-rich blood to body)
- Heart muscle gets stronger
- Concentration, ability to cope with stress, and positive self-concept are improved

\* **HOW BLUE BLOOD BECOMES RED: VEINS** (blue, oxygen-poor) vs. **ARTERIES** (red, oxygen-rich)

The process of air oxygenation starts with inspiring (inhaling) fresh air which has a high concentration of oxygen and a low concentration of carbon dioxide. The blood coming back from the body (blue blood) comes in contact with the wall of the air sac where it gives its carbon dioxide and gets oxygen becoming red. This fresh blood (red blood) returns back to the Left Atrium to be circulated to the body.

\* The minimum amount of **RECOMMENDED PHYSICAL ACTIVITY** to maintain cardiovascular health is: *at least five days a week for 60 minutes or more*.

\* **WATER** is the best drink for replacing fluids and minerals lost from sweat during heavy physical activity. Other drinks, such as pop, juice, coffee, and sports drinks, are not as healthy as water. The benefits of drinking water include: more energy, better complexion, less chance of injury, lubricates your joints, less headaches, reduces illness, better focus. Lack of water leads to: more headaches, fatigue, lack of focus, diseases, illness, acne, irritability. Make sure you know the signs and symptoms of **CAFFEINE WITHDRAWAL**. Know how to calculate your exact water needs for the day based on your weight.

\* Some of the **BENEFITS OF EXERCISE** include: add years to your life, improve physical appearance, reduce stress, improve self-esteem, make you feel happy improve strength, improve posture, increase schoolwork performance, gives you a positive attitude, lowers your risks for disease, improves complexion, gives you more energy, and so much more.

\* Know the importance of **WARMING UP** - prevents injuries, increases performance, brings blood flow to muscles.

\* **Superfoods** that should regularly included in your diet are: Beans, Blueberries, Oats, Oranges, Pumpkin, Soy, Spinach, Tea, Turkey, Walnuts, Salmon, Yogurt, Strawberries, Olive Oil, Whole Grain Breads, Tomatoes, Onions, Broccoli, Milk, Grapefruit

\* **WHOLE GRAIN** bread, pasta, crackers, and cereal are healthier than eating processed versions because they have all the nutrients left inside them - giving the body more fiber, vitamins, minerals, and less sugar. Eating white bread is just like eating a bag of candy. The simple sugars of candy go through the body very fast causing you to feel tired and weak within a few minutes. Whole grain foods go through the body very slowly, giving you lasting energy throughout the day.

\* **Skeletal muscles** are a **voluntary** Muscle System found in the body, meaning we can consciously control it with our brain. It is called Skeletal because it moves the bones. The body has over **600** Skeletal muscles including the biceps, triceps, quad's, and ab's. There are two other types of Muscle Systems found in your body. Both of these are **involuntary**, meaning they function automatically without you thinking about moving them. One group is comprised of your heart, called **Cardiac Muscle** and the other is comprised of your organs, called **Smooth Muscle**.

\* **Know the following muscle groups:**

Chest=PEC's	Shoulders=DELT's
Upper Arm=BICEPS (front)/TRICEPS (back)	Stomach=ABS (front) & OBLIQUES (sides)
Front Thigh=QUAD's	Back Thigh=HAM's
Buttocks=GLUTS	Shins=TIB's
Calves=GASTROC & Achilles' Tendon	Upper Back/Shoulder-V=TRAP's
Middle/Side/Low Back=LAT's	

\* Be able to name a **PERSONAL GOAL** that you feel that you have reached in this class. Think about how you reached that goal and explain **HOW** you reached it.

\* List/describe the **THREE A's** of **BREAKFAST**.      \* **WHOLE FRUIT VS. FRUIT JUICE**      \* **ANTIOXIDANTS VS. FREE-RADICALS???**

\* Describe the difference between a **NUTRITIONALLY DENSE FOOD VERSUS AN EMPTY CALORIE FOOD... EXAMPLES?**

\* Know the difference between lifting weights for **TONE** vs. **STRENGTH**.

\* **INJURY CARE:** R. - Rest    I. - Ice    C. - Compression    E. - Elevation

\* There is 1 teaspoon of sugar in 4 grams. So if 1 can of Coke has 40 grams of sugar then there are 10 teaspoons of sugar in that can!