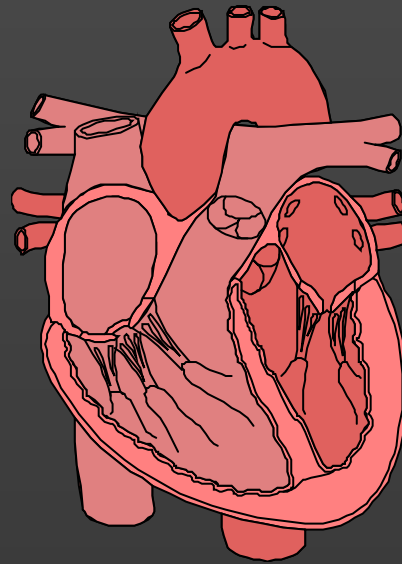


**What is the most important
muscle in the human body?**

Hint: Without it, we would die instantly!

The Heart



FACT:

CV DISEASE IS THE #1 KILLER!

PREVENTION:

EXERCISE STARTING AT A YOUNG AGE

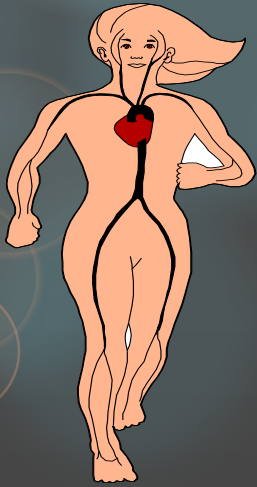


Risk Factors (for Cardiovascular Disease)

You can control your health by controlling certain risk factors

- ☞ Inactivity
- ☞ Obesity
- ☞ High Blood Pressure
- ☞ Smoking
- ☞ Stress
- ☞ Cholesterol
- ☞ Gender
- ☞ Heredity
- ☞ Age





Cardiovascular Endurance

The ability to persist in physical activities that rely on the HEART, BLOOD VESSELS, and LUNGS to supply oxygen to the working muscles.



Characteristics of Cardiovascular Activities

- ♥ Large Muscle Groups
- ♥ Rhythmic
- ♥ Continuous
- ♥ Aerobic

Examples:

Swimming, Biking, Running, X-Country Skiing, Rollerblading

Basketball is a cardiovascular activity.

A. True

B. False

Soccer is a cardiovascular Activity.

A. True

B. False

Why cardiovascular fitness???

- ♥ Stronger Heart
- ♥ Decreased Blood Pressure
- ♥ Decreased Body Fat
- ♥ Improved Circulation
- ♥ Faster Recovery Time
- ♥ Pumps More Blood Per Beat
- ♥ Less Risk Of CV Disease

3 Ways To Vary Activity

F.I.T. PRINCIPLE

Frequency - How often

Intensity - How hard

Time - How long

Frequency

How often you workout.

Should be a **minimum** of 3 days per week.

MONDAY

TUE

THURSDAY



**MARK
THIS
DATE**

Friday

INTENSITY

How hard you work out.

Heart Rate should be
60%-85% of your Heart
Rate Range



Time

In order to improve our cardiovascular fitness, aerobic activity should last at least...

20 Minutes

(ideally 30 minutes or more)



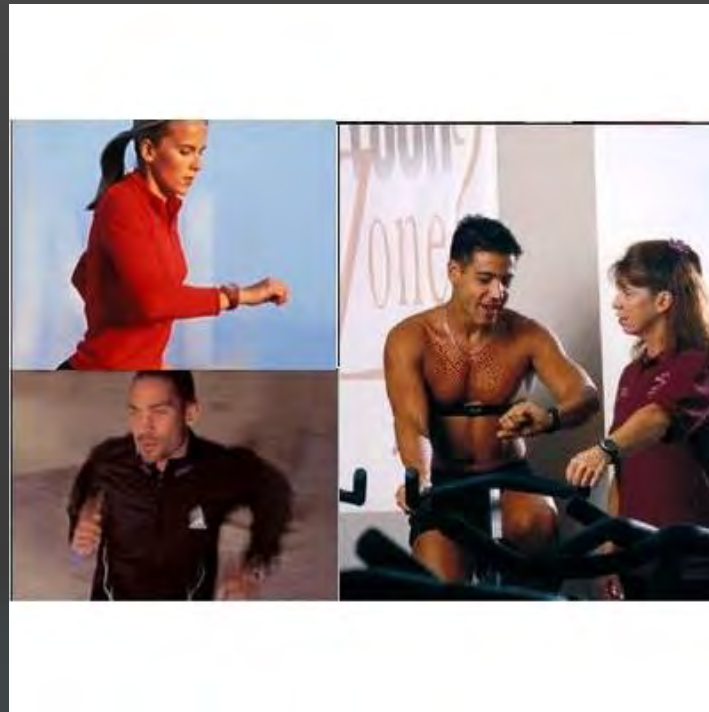
Principle of Progression

- Gradual increase of the demands placed on the body to get increased results.
 - Moves beginner to advanced.
 - Applied in any setting (activities, academics)

Cardiovascular Progression

Weeks	Frequency (x per week)	Intensity (heart rate)	Time (minutes)
1-3	3	145-155	20
4-6	3-4	150-160	25
7-9	4	155-165	30
10-12	4-5	160-170	35

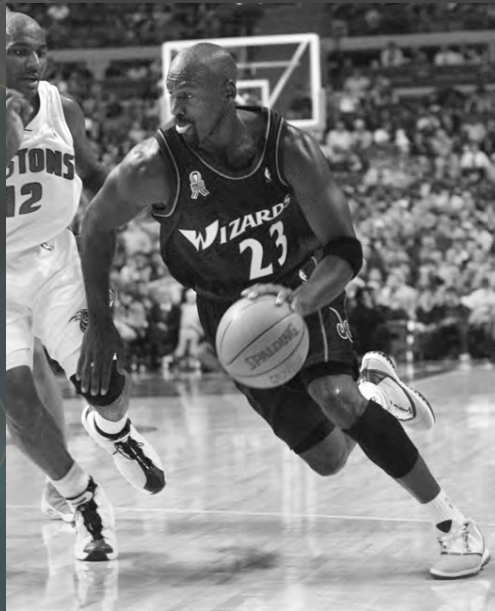
What does your heart rate during exercise tell you about your fitness level?



AEROBIC



VS



ANAEROBIC

AEROBIC

Moderate exercise over an extended period of time (uses oxygen).



ANAEROBIC

Short bursts of intense exercise.

*Uses energy stored in the muscle



Which of the following is an anaerobic activity?

- A. 1000 meter freestyle swim
- B. 48 minute game of basketball
- C. 1600 meter run
- D. The Ironman

When we exercise to benefit our cardiovascular fitness which metabolism would we want to use?

A. Anaerobic

B. Aerobic

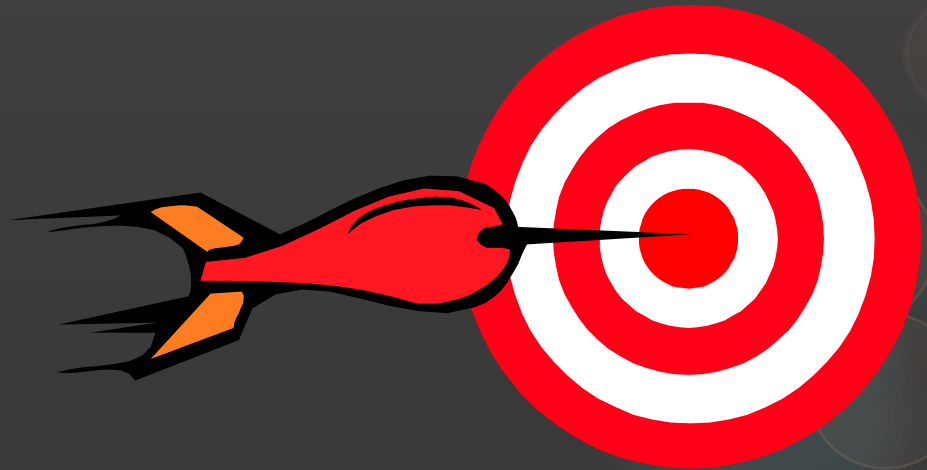
What is the best way to measure our intensity during exercise?

- A. The amount of sweat
- B. Our heart rate
- C. Rate of breathing
- D. Amount of lactic acid in our muscles

Target Heart Rate

The rate at which your heart should beat during exercise.

60% - 85% of Heart Rate Range



STEPS TO FIGURING T.H.R.

1. $220 - \text{Age} = \text{Max Heart Rate (MHR)}$
2. $\text{Max HR} - \text{Resting HR} = \text{Heart Rate Range (HRR)}$
3. $\text{Rest HR} + (\text{HRR} \cdot .60) = \text{Lower Limit}$
4. $\text{Rest HR} + (\text{HRR} \cdot .85) = \text{Upper Limit}$

EXAMPLE T.H.R. PROBLEM

1. $220 - 14 = 206$ (MHR)

2. $206 - 60 = 146$ (HRR)

3. $60 + (146 \cdot .60) = 148$ (Low Limit)

4. $60 + (146 \cdot .85) = 184$ (Upper Limit)

THR = 148 - 184

In order to use aerobic metabolism,
we must exercise at the proper
intensity.

The best way to measure our
intensity level during cardiovascular
activity is with our heart rate.