

# Fitness across the curriculum 2017 final exam

**Cardiovascular Fitness**– the ability of the heart, blood vessels, and lungs to supply oxygen to the working muscles.

## **Benefits of good Cardiovascular Fitness:**

- Stronger and more efficient heart
- Lower heart rate at rest, during exercise, and recovery
- Lower blood pressure at rest, during exercise, and recovery
- lower cholesterol (lower total, raise HDL)
- Improved body composition, burn fat
- Improved ability to perform work, faster recovery
- Maintenance of a healthy heart and cardiovascular system
- Reduced risk of health related issues (e.g. diabetes, heart disease, etc.)

## Examples of Cardiovascular Fitness

- Swimming, biking, running

## Cardiovascular Fitness Guidelines:

**Frequency** – How often should you do CV exercise?

- Recommended range is 3 to 5 times per week

**Intensity** – How hard (vigorous/intense) should CV exercise be?

- Teacher: teach how to find max heart rate to figure out ranges
- Should be moderate to vigorous physical activity.
- Brisk walking is moderate. 60% of max heart rate
- Jogging and running is vigorous 80% or higher of heart rate range
- Ideal range for good physical fitness is 60%-80% of heart rate range

**Time (duration)** – How long should CV workouts last?

- Minimum of 2 hours and 30 minutes (150 minutes) weekly of Moderate or...
- 1 hour and 15 minutes (75 minutes) weekly of vigorous

**Progression** – a gradual increase of frequency, intensity, and time

- as fitness level improves, increase intensity or time.

**Flexibility** – the ability to move a joint through normal range of motion

## **Benefits of good Flexibility and benefits of stretching:**

- Improves physical and athletic performance
- Increased range of motion

- Decreases the frequency and severity of injuries
- Decreases muscle soreness and recovery time
- Joint health – insures long term benefits of mobility
- Improves posture and prevents low back pain and injuries
- Relaxation and stress management

## Flexibility Training Guidelines:

- Use a variety of stretching modes such as dynamic, static, or a functional warm up
  - Static stretching - A stretch is held in a challenging but comfortable position for a period of time, usually somewhere between 10 to 30 seconds. Static stretching is the most common form of stretching found in general fitness and is considered safe and effective for improving overall flexibility.
  - Dynamic Stretching - Active movements of muscle that bring forth a stretch but are not held in the end position.
  - Functional/Dynamic warm up - a series of sport specific movements that are designed to prepare the muscles for performance and are done in a safe and controlled fashion. Dynamic stretching is used in a functional warm up but also adds movements to increase heart rate and increase blood flow which, in turn, warms up the muscles.
- Perform at least one major stretch for each major muscle group of the body
- Stretch to the point of mild discomfort, not pain
- Stretch both sides of the body and opposing muscle groups. Balance.
- Stretch the target muscle groups in different planes to improve overall range of motion at the joint
- Increase intensity and frequency gradually over time. These two factors will have the greatest influence on improving your flexibility. Stretching + frequency = improved flexibility
- Stretching after warm ups and /or activity is the best time for improving flexibility.