

## Fitness Focus Cardiorespiratory Endurance

**Cardiorespiratory endurance** involves the ability of the heart and lungs to supply oxygen to the working muscle for an extended period of time. It is also called **aerobic endurance** or **aerobic fitness**, it is the ability of the circulatory and respiratory systems to *adjust to* and *recover from* the effects of moderate to vigorous activity, such as running, swimming, or biking.

Improving aerobic endurance increases the ability of the heart, lungs, and muscles to do work over a longer period of time. Together, good nutrition and physical activity will promote life long health benefits and disease prevention.

**Frequency** is how often you do an exercise. To improve cardiorespiratory endurance you should exercise three days a week with an intensity within your TARGET HEART RATE ZONE, for a time of 20 minutes minimum.

### Calculating Maximum Heart Rate and Target Heart Rate Zones:

Maximum Heart Rate (MHR):  $220 - \text{Age} = \text{Max Heart Rate}$

example: A 12 year olds max heart rate would be determined by calculating  $220 - 12$ .  
12 years old = a maximum heart rate of **208**

Target Heart Rate Zone (THRZ):  $\text{MHR} \times 60\% (.6)$  and  $\text{MHR} \times 85\% (.85)$

example: to get a 12 year olds target heart rate zone you must first calculate the low end of the zone followed by the high end of the zone. (Remember, you need the Max Heart Rate number calculated above...208 to calculate the THRZ)

Low end of zone:  $208 \times .6 = 124.8$

High end of zone:  $208 \times .85 = 176.8$

So, the target heart rate zone is 125 to 176

### LESSON REVIEW:

Answer the following questions in complete sentences and on a separate sheet of paper.

1. What is cardiorespiratory endurance?
2. Give 3 examples of cardiorespiratory endurance?
3. What two systems need to adjust and recover from moderate to vigorous activity?
4. What two things will promote lifelong health benefits and disease prevention?
5. What are the frequency, intensity, and time for cardiorespiratory improvement?
6. Calculate YOUR maximum heart rate and target heart rate zone. Show your work!!!