Teacher Information:

Determining Pulse or Heart Rate

Your pulse is your heart rate, or the number of times your heart beats in one minute. Pulse rates vary person to person. Your pulse is lower when you are at rest and increases when you exercise. Determining one's pulse can help determine and evaluate an effective exercise plan for every person.

How to Determine Pulse

1. Place the tips of your index and second fingers on the palm side of your other wrist, below the base of the thumb. Or, place the tips of your index and second fingers on your lower neck, on the side of the windpipe, preferably on the same side of the neck as the hand in which you are using.
2. Press lightly with your fingers until you feel the blood pulsing beneath your fingers. You might need to move your fingers around slightly up or down until you feel the pulsing.
3. Count the beats you feel for 15 seconds. Multiply this number by four to get your heart rate (pulse) per minute.

Determining Maximum Heart Rate (MHR)

The maximum heart rate is the highest your pulse rate can get before being at a risk. To calculate someone's predicted maximum heart rate, which is what you will use to save time, use this formula:

220 – One's Age = Predicted Maximum Heart Rate

Example: a 20 year old person's predicted maximum heart rate is 200 beats per minute.

This is only a predicted maximum heart. If someone has a heart condition, their maximum heart rate may be significantly lower than the average person. Be cautious to putting these people through a lot of physical activity.

Determining Target Heart Rate (THR) Zone

The most benefits in exercising are gained when training in the target heart rate zone. Usually this is when your exercise heart rate (pulse) is 50 percent to 80 percent of your maximum heart rate. The body burns a large number of calories at this time and the majority of them are all fat calories. It is not advised to train above 85% of your maximum heart rate. This increases both cardiovascular and orthopedic risk and does not add any significant extra benefit. Only do so if you are in great shape or have been told to do so by a doctor.

To determine your target heart rate zone take the MHR and multiply by .50 and then multiply the MHR by .80. These to figures will now establish the boundaries for one's THR zone. A calculator will probably come in handy at this time.

Example: A 20 year old person's MHR is 200 beats per minute. Their target heart zone will be 100 to 160 beats per minute.

Stretching and Its Importance

Stretching is very crucial before and after any work out. Stretching before a workout fights off any unnecessary muscle strain, cramping, or other damaging to muscles when the muscles are worked hard without being warmed up first. It is also important to stretch after workout because this can help prevent muscles from getting uncomfortably sore and allows for them to grow and become stronger, and stretching everyday improves flexibility.

Stretches For Running or Jogging

1. **Arm Stretch**

Start by stretching your arms even though that there seems no need to do so because arms seem unneeded in running. By just pumping your arms while jogging or running can cause someone to pull a muscle in their arms. With the opposite arm, grab your elbow and bring it across the front of your body and hold it there for 10 seconds. Then do the opposite arm for 10 seconds.

2. **Touch Your Toes**

Next should be the old faithful stretch by bending down to touch your toes. It is important to keep your knees straight. Another important thing to remember is to just bend down as far as you can without it causing pain. Avoid bouncing while stretching as well. Bouncing can actually cause the muscles to be confused on how much the need to stretch with simple tasks and that can put you at a high risk for strain or cramps. Hold this stretch for 10 seconds.

3. **Heel to Buttocks**

One more stretch that should be done before a general running exercise is the heel to buttocks. Lift one your feet up behind you and reach back and gently grab and pull your foot up to your buttocks by using the arm on the same side of the body as the foot you are grabbing. Hold this stretch for 10 seconds and then do the same on the other side of your body.

4. **Drop the Heel**

This stretch is great to help loosen the calf muscles. Loose calf muscles help to prevent tendonitis in the Achilles. Stand on a curb or step. Inch one of your legs backwards until your heels are hanging off the curb or step. Drop that heel down to the ground until there is slight discomfort. Hold this stretch for 10 seconds then do the opposite heel the same way.

Benefits of Physical Activity

1. **Helps lower and maintain your body weight and body fat.**
2. **Builds and maintains healthy muscles, bones, and joints.**
3. **Helps fight off chronic illness such as heart diseases and osteoporosis**
4. **Increases energy.**
5. **Helps build proficient mental focus.**
6. **Reduces the risk of breast cancer by up to 60%.**
7. **Reduces depression.**
8. **Decreases stress levels**