4 Basic Training Considerations for Cardiovascular Fitness

1. Type of Activity (How Should I Train?)

- Aerobic (uses Oxygen: i.e. no short burst activities like sprinting or power lifting)
- Elevate and maintain Heart Rate
- Repetitive, whole body movements (walking, jogging, cycling, swimming, etc.)
- Easy to Regulate (can increase or decrease pace as needed to get into Target Heart Rate Zone)
- Easy to Maintain (no fluctuations-keeps heart rate at steady level not up and down like basketball or just down like golf)
- Injury Restrictions (if you can't run a lot you have to choose alternate activities i.e. cycling, elliptical, swimming)

2. Frequency (How Often Should I Train?)

- No less than 3 x/ wk
- Competitive Athletes: 6x/wk
  (Officials are somewhere in between; Pre-Season: 5-6 days/week; In-Season: 5-6x/week (counting game days); Off-Season: 3-4 days/week unless addressing deficiencies found during fitness testing)
- Everyone needs 1 day off/wk

3. Intensity (How Hard Should I Train?)

- At Target Heart Rate (60-90% of Maximum Heart Rate)

Where is the best place to monitor HR? ***At the carotid artery in your neck.***

*How do you find that?****Put your index and middle finger at the back of your jaw and slide them down to your neck just below your jaw and feel for your pulse.***

Don't push to hard. It will shut off the blood supply to your brain. Don't use your thumb. It has a pulse of it's own and will make it harder for you to count.

How quickly after stopping should it be measured? ***Within 10-15 seconds and count pulse for 10 seconds then compare to Target Heart Rate Zone***

Formulas for Determining Target Heart Rate

Max HR Formula:

Maximum Heart Rate=220-age

Target Heart Rate =MHR x70%

Let's Do An Example:

Willie Whistleblower is attempting to get in shape for the season by using the expert advice of his amazing, outstanding and super smart athletic trainer. The athletic trainer recommends that he train in a Target Heart Rate Zone at 70-85% of his Maximum Heart Rate.

MHR=220-50

170x.70=119 beats per minute

170x.85=144.5 beats per minute

Divide both numbers by 6 to give the number of beats in a 10 second count

119/6=19.8 beats per 10 secs

144.5/6=24.08 beats per 10 secs

So…. When Willie checks to see if he is training at the appropriate intensity his pulse should be 20-24 beats in a 10 second period.

A more accurate way to determine Target Heart Rate would be the:

Karvonen Formula

Target Heart Rate=(Max Heart Rate-Resting Heart Rate)x70% + Resting Heart Rate

* In order to use this formula you must determine your Resting Heart Rate. To do this count your pulse for an entire minute after you have been "resting" for an extended period of time. (First thing in the morning before you get out of bed is the best time, but you could do it after sitting or lying on the couch watching TV for approximately 1 hour.) Take it on 3 separate occasions and take the average of the three then plug it into the formula.

Let's Do This Using Willie's Numbers:

(170-60)x.70+60=137 bpm

(170-60)x.85+60=153.5 bpm

Divide by 6 to get bpm for 10 second count: 23-26 beats per 10 second period

4. Duration (How Long Should I Train?)

- American College of Sports Medicine: 20-60 minutes at THR
- Competitive Athlete: 45 min at THR