

# **Aerobic Soccer Fitness**

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In soccer or fitness training in general, aerobic exercises are designed to improve the cardiovascular system and the efficiency of the heart.

Aerobic means "with air." During aerobic activity, the body supplies the muscles with all the oxygen lost during their work. The muscles require it for the oxidation of fat and carbohydrates. In order to maintain this balance and keep the muscles supplied, the rate of exercise must be between 50-85% of your maximum heart rate. Your maximum heart rate more or less equals 220 beats per minute minus your age in years.

When the exercise becomes too intense, the heart will not be able to provide the muscles with the needed oxygen so they will switch to alternative sources of energy. At this point, further activity will be considered anaerobic.

Your aerobic ability is determined by the maximum amount of oxygen, which your body can consume, or VO<sub>2</sub> max. VO<sub>2</sub> max is measured in milliliters per kilogram per minute or the total amount of oxygen that can be supplied to a portion of your body over a given amount of time. VO<sub>2</sub> max is largely dependent upon the efficiency of your body's "Oxygen transport system."

## **Significance for the soccer player:**

- poor aerobic fitness reduces your muscle strength
- it impairs your coordination and reflexes
- it makes it more difficult to concentrate

## References

1. ExpertFootball.Com, <http://www.expertfootball.com/> (2004)
2. About.Com, <http://www.sportsmedicine.about.com/> (2005)
3. *The Official FA Guide to Fitness for Football.*
4. Les Reed, *The Official FA Guide to Basic Team Coaching*, (Hodder Arnold 2004).