

Golf is a great cardio workout!

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The title of this article probably raises a lot of eyebrows. In fact, the whole idea of golf as a cardio workout came upon me as a huge surprise also. The discovery that our national team players who have the highest scores on their cardiovascular fitness testing results are also the players who have the lowest scoring average, took the fewest putts, had the most accurate chipping, and highest ball speed and carry distance (both with a driver and 5-iron) was a shock to the RCGA coaching and scientific staff. These research results have just been published in the Journal of Strength and Conditioning Research. To read the research paper go to www.pubmed.com, and search for "Wells AND golf".

When the coaches and scientific staff began discussing these results, our initial confusion gave way to some great discussion about just how important aerobic fitness really is for our athletes. Certainly Lorena Ochoa's legendary commitment to aerobic fitness helps back up our findings. We figured that although golf is a sport that is thought to primarily require explosive power to perform the golf swing, and relaxed fine motor control for the short game and putting, the aerobic cardiovascular system is also of critical importance for the following reasons:

1. In a typical game a golfer will rely on their aerobic system to walk 7-10 kilometres, up and down hills, over varied terrain without fatigue.
2. A strong aerobic cardiovascular system will also help deal with mental stresses and helps people be able to relax under pressure situations.
3. Being generally fit also helps the body cope with heat and cold, and with travel stresses like jet lag.
4. In addition to the need for a strong aerobic cardiovascular system when playing a round of golf, the aerobic system is used extensively during practice when a golfer may be hitting shots repeatedly with minimal rest between practice repeats. Optimal muscle recovery between shots is dependent on how efficient the aerobic system is working and this will help golfers practice more effectively for longer periods of time.
5. Finally, balance and posture are crucial contributors to the performance of the golf swing itself, and are dependent on muscles that are active all day long (postural muscles and fine motor control muscles in the joints). These muscles are most likely to fatigue during the day, especially when walking long distances while performing explosive movements like the golf swing.

Therefore, aerobic conditioning of all of the muscles of the body, as well as the heart, lungs, and blood is very important for golfers who want to perform at their best. Aerobic conditioning can be accomplished by performing any exercise for extended periods of time with a sustained heart rate.

Examples of exercises that enhance aerobic cardiovascular function include:

- Swimming
- Walking, jogging, running
- Skipping
- Step machine

- Rowing

Each of these activities has benefits and drawbacks which can affect your golf game. Make sure that when you start an aerobic training program, that you consult your golf professional or trainer and ensure that you monitor your playing ability to make sure that the training enhances your game. Always finish your aerobic training sessions with some great stretching and drink plenty of fluids before, during and after your training sessions.

Make sure you wear high – quality footwear that is designed for the type of activity you are doing, i.e. running shoes for running, cross training shoes for indoor training.

Training the Aerobic Cardiovascular System

Training your aerobic cardiovascular system is all about improving endurance. In the same way as you practice different parts of your golf game (drives, short game, putting), you can train different aspects of your aerobic endurance ability (high intensity threshold, aerobic training, recovery). Learning how to train in each zone is important to make sure that your training is efficient and effective, keeps you from becoming overtired, and is specific to you. Aerobic cardiovascular training should be performed 3 – 4 times per week for 30 to 60 minutes per session. This should be done throughout the year, but a golf game counts (as long as you don't use a cart) as an aerobic training session as one usually walks 7-10 kilometres in an average game.

Heart rate zone training

Heart-rate training is the key to gauging your aerobic intensity and building endurance. The most important investment you can make to monitor your aerobic training is to purchase a heart rate monitor. If you do not have a heart rate monitor, you can easily check your own heart rate during exercise by placing your fingers on the side of your trachea (windpipe on the front of your neck) and feeling for your pulse. Once you have found your pulse, count the number of heart beats in 10 seconds and then multiply by 6 to get your heart rate in beats per minute. Make sure you start counting with a 0, and not 1. The next step is to calculate your heart rate training zone. You can estimate your maximum heart rate by taking your age and subtracting it from 220 and then adding 5:

$$\text{Maximum heart rate} = 220 - \text{_____ (your age)} + 5 = \text{_____ beats / minute.}$$

This is just an estimate. You can also have your maximum heart rate measured accurately by a physiologist or doctor. Consult your physician or trainer to have this test conducted if you want more accurate results. Once you have your maximum heart rate you can calculate your aerobic cardiovascular training zones to help improve your endurance and health. You can start exercising a few times per week in each of these zones (after checking with your doctor to make sure you can do cardio exercise safely):

Heart Rate Training Zones Chart

Recovery Zone **Max Heart Rate x 0.6 = _____ beats / minute (60% of maximum)**

Aerobic Zone **Max Heart Rate x 0.7 = _____ beats / minute (70% of maximum)**

Threshold Zone **Max Heart Rate x 0.8 = _____ beats / minute (80% of maximum)**

Recovery Zone

Exercising in the recovery zone should feel very easy, like you're barely breaking a sweat and you

are not out of breath. This type of training should be used to recover from exercise, after a round of golf to flush out the fatigue in your legs, before a weights session, after a hard workout to get rid of lactic acid, or on days when you feel very tired, but still need to exercise. Recovery sessions should last from 15 – 30 minutes.

Aerobic Zone

When you are doing aerobic zone training, you should be able to hear yourself breathe, but you could still carry on a conversation. It is a strong effort, but one you could sustain for about an hour if you had to. Aerobic zone training is best for developing an aerobic base and for improving your endurance. This type of training is the foundation of good aerobic cardiovascular training for golfers. Aerobic sessions should last from 30 – 60 minutes.

Threshold Zone

Also known as the interval-training zone, threshold zone training is very challenging and requires significant effort. Breathing is laboured, and there will be some lactic acid accumulation when you do this type of exercise. Threshold zone training is important for people that have already established a good level of aerobic base conditioning. The term interval training come from the need to incorporate some rest into the workouts due to the high intensity exercise that is performed in the threshold zone. A threshold interval training session would consist of a 10-15 minute warm-up (at 50-60% effort), 15-30 minutes of interval training (alternating short bursts of high intensity exercise with short recovery bouts), and a 5-10 minute warm down (at 50-60% effort). This type of training is used to improve the aerobic and cardiovascular system in people who have a good base level of fitness and should be done no more than 2 times / week, with the other 2 sessions being constant exercise sessions as already described. Interval training sets may be 30 seconds at 50% effort, 30 seconds at 90% effort repeated a number of times. The exercise duration can be increased from 30 – 90 seconds as your fitness improves, and the rest can also be adjusted to make the training more or less difficult. The total duration of the interval training set can be adjusted from 15 minutes when starting out to up to 40 minutes for highly trained golfers. Make sure you work with a trainer or fitness professional to design the interval training sessions and with your golf trainer or professional to incorporate the sessions into your overall golf preparation program.

But of course the main thing that many people care about is getting into better shape and many of us need to lose a few pounds. Rest assured that golf is a cardiovascular workout for you. You probably burn 300-500 calories / hour if you walk the course, and even better, carry your bag. Just make sure that you don't eat and drink too much junk food on the course and you can play yourself into great shape this summer!