

Cardiovascular Training for *Fitness, Health and Youthfulness!* – Part 3



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Last month our article ended with an interesting question. “Did you know that the heart muscle, which in the average adult weighs less than a pound, pumps about _____ gallons a day, which is about _____ pounds of blood a day?” The surprising answer is that the heart pumps about 2,000 gallons a day, which is about 20,000 pounds a day! This can vary up or down depending upon activity level. The human heart weighs 8-10 oz., and is the size of a human fist, and beats on average 100,000 times per day. The heart muscle is an amazing pump, and is designed to last a lifetime!

Cardiovascular Training benefits all **12 Systems of the human body**. To fully appreciate all of the health and fitness benefits, it is important to understand the ‘Two Main Body Functions’.

The Two Main Body Functions

The body has a program, and it is cellular based. In other words, everything that happens in the body begins in the cells. There are **two main body functions** happening at the cellular level. A person’s level of health or wellness is dependent on how well these two functions work.

1) **The cells pump in**, or absorb nutrients from the bloodstream and lymph fluid through their cell membrane. The cells use these nutrients for energy to perform their duties that they are responsible for in the body.

2) **The cells pump out**, or eliminate wastes into the bloodstream and lymph fluid through their cell membrane. These waste products are the result of the cell burning, or metabolizing nutrients for energy.

A key point to understand is that **cells do not ‘pump’ when we are not moving**. In other words, cells only pump in and out effectively when we physically move our body. It is only when our body moves that cells pump or ‘vibrate’ as a result of the

effect of gravity. Cells are about 70% fluid on average, so they are like microscopic ‘water balloons’. When we move the G-forces of gravity causes the cells to jiggle or vibrate, which allows them to pump in nutrients, and pump out waste products through their cell membrane. So movement keeps the cells healthy, and being sedentary makes the cells unhealthy.

The Big Question

Which fitness products provide the most cardiovascular benefits? Treadmills and ellipticals are weight bearing, and recumbent cycles (bikes), rowing machines and upright cycles (bikes) are not weight bearing. The goal is to use products that engage most of the muscles and joints in the body. Working out on a variety of products is good because then it is fun and exciting for the user, and more of the muscles and joints are used in different positions and alignments to accelerate the health and fitness benefits.

If you have a **gym in your home**, it is recommended to have a treadmill, elliptical, recumbent cycle, rower and upright cycle. It is important to use all 5 cardiovascular products in your fitness program to properly exercise your upper body, core or torso, and your lower body. All of the 400+ muscles and 200+ joints need regular and balanced exercise.

Also, the variety of products keeps your workouts fun and exciting! These should be quality products purchased from an authorized and established business that stands behind all of their products.

Another important consideration is that walking, running and biking are primarily lower body exercises. Heart attacks and strokes do not occur in the legs! Therefore it is essential that your cardiovascular program includes fitness products that **exercise your upper body and core** while you are in your heart rate target zone. The elliptical cross-trainer and the rowing machine are the **only** cardiovascular products that exercise your core and upper body. The treadmill provides the best weight-bearing exercise for bone density, and you can adjust the elevation to take the pressure off of the ankles, knees and hips. The recumbent cycle and upright cycle work the legs and hip areas differently, and both should be used for optimum lower body development. If you are not sure of this, try them both out in the same workout and you will see and feel the difference.

A Good Motivator

Quality cardiovascular products will **monitor your fitness level**, and also perform fitness tests for the individual. A heart rate transmitter is used which goes

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around the diaphragm at the bottom of the rib cage, and sends a wireless signal to the monitor on your fitness product. This will provide accurate heart rate readout so that you can exercise in your age-related target zone. Heart rate controlled workouts can be performed as well. The user simply enters the heart rate that they want to exercise at, and the fitness product will give you a warm-up and keep you in your target zone. For example, if your heart rate is too high the speed or resistance will decrease, and if your heart rate is too low the speed or resistance will increase.

A **fitness test** is as simple as recording your speed, resistance, workout duration, and your heart rate when you are done. For example, if you were using a treadmill, you could walk at 3 miles an hour at a 2% elevation for 20 minutes. The first time a person does this their heart rate, or pulse, might be 130 beats per minute when they are done. After a month of exercise, they could perform the same test and their pulse might be 120 beats per minute. A month later their pulse might be 110 beats per minute. A month later their pulse might be 104 beats per minute. We can see from this example that their

heart rate dropped 26 beats per minute over a 3 month period. This represents a significant improvement of 20% in their cardiovascular efficiency, because $130 \times 20\% = 26$, and $130 - 26 = 104$. In other words, the same workload was being done by the heart to deliver oxygen to all of the muscles of the body, but it could do it with 20% less effort because it was saving 26 beats per minute. The great thing about this is that a person can monitor their fitness level, and see which direction they are going. As a result, a person has the ability to simply and accurately determine if they are becoming progressively stronger, healthier and more youthful. That is an excellent motivator!

Accurate fitness tests are only possible with quality fitness products. Walking, running or biking outdoors introduces many different variables so accurate fitness testing is not possible. Variables such as wind speed, wind angle, elevation, speed, temperature, and warm versus cold weather clothing are not a concern with indoor fitness products.

It is a good idea to keep written records of your workouts including the date, which products you used, your speed, the resistance

or elevation, and your average heart rate. This is very motivating because you can see your improvement over the months.

A few minutes of easy cardio and/or stretching on a good quality **WBV (Whole Body Vibration) Platform** is one of the best ways to prepare or warm-up your body for your workout. This should also be repeated for your cool-down after your workout.

In summary, a person should be aware of their personal target zones for their heart which are calculated based on their age and their level of health and fitness. All 5 indoor cardiovascular products should be used. A fitness test should be performed periodically to determine if a person's cardiovascular fitness is improving or declining. All 4 different cardiovascular workouts (discussed in last month's article) could be used for enhanced benefits if a person is in good physical health, and they have the approval of their doctor.

Next month we will have a fun and exciting Review Quiz of the last 3 articles on Cardiovascular Training, with the reward of a \$75 Gift Card for anyone who completes it! ✨

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