

The Importance of Aerobic Exercise

Aerobic exercise is one of the best things that you can do for your entire body. The interesting thing is that it has been shown to markedly decrease chronic pain, including pain from your neck and back. People who are aerobically fit have much less neck and back pain than people who are not. Also, exercise has been shown to improve mental function, decrease the risk of Alzheimer's, increase stamina and bone density, elevate mood and add years to your life. Aerobic exercise is any kind of continuous activity that lasts for more than 20 minutes, that increases the blood supply and oxygen delivery to all of your tissues. One way to determine if you are doing this properly is to check your heart rate.

Heart Rate: If you are a formula type person, subtract your age from 220 to get your maximum heart rate. Then multiply this number by .7. This is a reasonable goal for most people. For example, if you are 50 years old: $220-50=170$; $170 \times .7=119$. Therefore, the average 50 year old should exercise until their heart rate reaches about 119 beats per minute, and maintain it there for at least 20 minutes. If you are not a formula type person, we recommend that you exercise until you are slightly short of breath and working up a sweat. Maintain this slightly short of breath state for at least 20 minutes.

How Does Aerobic Exercise Improve Pain? When you exercise, your body puts out chemicals called endorphins. These are naturally occurring morphine-like substances that the body produces in response to pain. This is the substance that probably gives marathon runners a runner's "high." This natural pain killing substance is produced in large amounts in people who exercise on a regular basis. In addition, regular aerobic exercise improves your cardiovascular function. Your heart works more efficiently as a pump, and your body begins building new blood vessels to feed the muscles, bones and joints. One of the reasons why you get pain when you have arthritis is that there is not enough oxygen that is delivered to your bones, joints and cartilage in-between your bones. If you exercise on a regular basis, then oxygen delivery to these arthritic joints is improved, and therefore, the pain is diminished.

We have seen many patients who have even avoided surgery as a result of taking up vigorous aerobic exercise as a means of combating their pain. If you exercise on a regular basis, you will find that you will need less sleep, have more energy, have less pain and have a better mood.

When you stand under a hot shower or get a massage, you also increase the blood supply to your neck and back. This is why it feels good. However, these are passive ways to increase the blood flow. As soon as the shower or massage stops, the pain quickly returns. The difference with aerobic exercise is that it is an active means of increasing the blood supply, and the effect lasts for hours after you have finished exercising.

We recommend elliptical trainers, stationary bicycles, treadmills and swimming. If you cannot swim, then we recommend that you wear a life vest and run in place in the deep end of the pool. This is excellent exercise, especially for those with arthritis of their hips or knees.