

## **New Findings Supporting Incredible Value of Exercise**

**By Dr. Victor Sternberg**

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I recently read a couple of interesting articles related to health and recovery from heart attacks and how exercise can significantly slow aging.

A recent study was done on patients who had heart disease requiring a stent or bypass surgery. These patients were followed and given different regimens in terms of exercise or no exercise.

It was found in the group that exercised at least 150 minutes per week at a moderate level, there was a 19% reduction in recurrent heart disease.

In the group that exceeded 150 minutes per week, there was a 36% reduction in the rate of recurrent heart disease.

Interestingly enough, these statistics were independent of whether the patient lost weight. In fact the patients who were slightly underweight had a higher incidence of recurrent heart disease and that weight gain or lack of weight loss did not affect the recurrence of heart disease.

So it appears that exercising does make a difference in terms of recovery and prevention of heart disease more so than diet. Surprising ...

A study with medical professionals in which I've been a part of for 40 years was done at Harvard where they followed physicians and dentists since the mid-1970's. The studies revealed that the people who had the least incidence of disease of any sort were those who exercised at least 3.5 hours per week at a moderate or vigorous level.

One of the things I've observed at the health club is that many people who exercise do not do it with the understanding of what their pulse rate should be when doing aerobic exercise.

There are age charts that include minimum/maximum and training pulse rates that people should follow when they exercise.

The second article was even more outstanding. It followed thousands of people who were cyclists and the age group was 59-79. The group of cyclists followed averaged 400 miles per month which is a little more than 10-15 miles per day although they probably did more on the weekends. They followed these cyclists as they aged.

The follow-ups done were quite outstanding. They looked at muscle biopsies where they actually took small samples of leg muscles. They thought they would find atrophy and replacement of muscle with fat and fibrous tissue that would be typical in a 79 year old. That did not occur. The muscle fibers of the 79 year olds who had exercised for decades were similar to the legs of a much younger person, often 30 or 40 years younger.

On a biological level, when they sampled the thymus gland which produces lymphocytes and measured the levels of circulating lymphocytes which are the cells that fight infection, they found in the cyclists that there was no diminution in their thymus gland. This was something that was unexpected since the thymus gland

atrophies as we get older. There was also no difference in the immune system of a 79 year old cyclist vs. someone in their 30's.

So here we have 2 very concrete studies that support the incredible value of rigorous exercise.

On a final note, I don't know whether you read of the 105 year old Frenchman who just set a world's record for one hour of cycling. He covered 14.1 miles on a flat track. He had been studied at 103 years of age when they did a maximum oxygen uptake, a measure of fitness, and they repeated the test at 105 years of age. It astounded the researchers that his actual fitness level measured by how much oxygen you consume during exercise went up 13% between ages 103 and 105. This man did not start exercising until he was in his 80's.

He discussed with the scientists what he had done which was 20% of the time he did max exercise. He carried the level of cycling to a point where he was breathless for at least 20% of his exercising time. The rest of the time he exercised at a moderate level that put his heart rate into a training level.

This type of regimen of 80% moderate exercise and 20% all-out exercise seems to be a formula for continued fitness no matter how old you are.

So a word to the wise: Get off the sofa, Get out your bicycle or Get your sneakers on and Start Moving.

Yours truly,  
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