



Finn Fitness & Wellness

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FIND THE FOUNTAIN OF YOUTH WITH EXERCISE

Not only does exercise make most people feel better, lose some weight and perform physical tasks better, it now appears that exercise — specifically, resistance training with weights — actually rejuvenates muscle tissue in healthy people even up to the age of 70.

A recent study, co-led by Buck Institute faculty member Simon Melov, PhD, and Mark Tarnopolsky, MD, PhD, of McMaster University Medical Center in Hamilton, Ontario, involved before and after analysis of gene expression profiles in tissue samples taken from 25 healthy older men and women who underwent six months of twice weekly resistance training, compared to a similar analysis of tissue samples taken from younger healthy men and women.

The study was looking at the effects of exercise on age-specific mitochondrial function. Mitochondria are the power generators in human cells that extract the oxygen from the blood so our cells can use it as energy. As we age, typically the function of the mitochondria declines. However, now there is proof that we can reverse or prohibit this from happening at all.

Findings from the study showed that two one-hour sessions of resistance training per week for a total of six months for an adult even up to the age of 70, restored the mitochondrial function almost completely back to the mitochondrial function of someone in their 20s. The test subjects also showed a 50% improvement in strength. The doctors managing this study stated they were very surprised by the results of the study. The fact that older adult's mitochondrial function so dramatically reversed course gives credence to the value of exercise, not only as a means of improving health, but of reversing the aging process itself, which is an additional incentive to exercise as you get older.

As a fitness expert, I enjoyed reading this study even though I see these changes and many others in my own clients every day. Over the last 10 years I have been teaching adults how to acquire great results in a minimum amount of time. I always try to instill in them that consistency and quality are always more beneficial than quantity.

The subjects in the study only exercised for two hours a week, but their program was monitored and very specific so that all muscle groups were worked each week. I have seen how important exercising correctly can be, and the changes that it can make in people. One of my favorite phrases is "it requires the same amount of time to exercise in-correctly as it does correctly, but the benefits of exercising correctly far outweigh anything else."

This study reminded me of the countless numbers of new clients and other people age 35 and up who tell me they cannot do something anymore because they are getting older. This makes me sad since I am 40 and still play competitive sports with 20 year olds. After

my clients work with me for six months or so they understand that they are NOT too old to enjoy the sports and activities that they engaged in when they were younger.

Two years ago a long time friend and fellow athlete of mine, Eric, came to me and expressed his concern about not being able to play sports any longer because he felt too old at the age of 39. I simply told him it had nothing to do with his age; he was just not exercising correctly.

Eric agreed to follow an exercise program that I created for him that entailed a couple hours a week of stretching and resistance exercises to work all the muscles in his body to create a balanced and highly functioning body. After just a few weeks Eric reported that he was losing the weight he wanted to lose and he was performing much better at sports. I encouraged him to wait and see what another 6 months of focused and correct exercise would bring him.

I continued to monitor and change Eric's exercise program every six weeks and he continued to make excellent progress in the areas of weight loss, flexibility, speed and strength. At the end of his baseball season he reported having one of his best seasons ever and felt like he was in his late 20's again. He could not remember playing an entire season without pain.

Eric's coach informed me that he noticed Eric had his youthful step and speed back on the playing field and was absolutely thrilled with the results. I told the coach it is all about doing the right things at the right times and being consistent with your exercise.

Eric is now 41 and continues to see vast improvements in his sports abilities while not experiencing pain and discouragement. He no longer thinks about retiring from sports.

I am grateful that this study was conducted to reinforce the importance of regular resistance training with weights, and the benefits of a healthy and a youthful body that come with it. I sincerely hope this article inspires you to achieve better health and a youthful body.

The results of the study appear in the May 23 edition of the on-line, open access journal ***PLoS One***.

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