

# Exercise Makes You Smarter

A study has shown that regular physical activity can spur the production of neurons in the memory region of a mouse's brain. One result was that mice who exercised on a running wheel learned new tasks better than mice who remained sedentary.



## Memory Tests

Researchers compared groups of old mice (about age 70 in human years) and young mice (age 20 in human years) allowed to exercise on a treadmill as long as they wanted with a control group that didn't exercise for a month, then gave all of them memory tests (finding a platform sitting in a small pool of water).

## Older Mice Grew New Brain Cells

Older mice that exercised performed just as well on the memory test as younger ones did. Older mice that didn't exercise failed to remember where the platform was sitting, probably because they produced few new brain cells; scientists found regular physical activity spurred the growth of neurons.

This led them to believe exercise could hold the same promise for seniors in boosting their brainpower and slowing the forgetfulness and confusion that accompanies aging. The study may also suggest that people with diseases such as Alzheimer's could be able to build replacement brain cells by engaging in daily workouts.

While previous research has demonstrated that exercise can spur the formation of brain cells in young mice, this is the first study that shows exercise helps older mice in the same way.

[USA Today](#) September 21, 2005

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## Dr. Mercola's Comment:

Now you have another reason to exercise -- to [get smarter](#). It is really one of the most perplexing things I observe in our culture, too few of us exercise like we need to to reap all of exercise's major benefits.

Most of you probably view exercise as work, which is one of the reasons you likely avoid it. Well, you couldn't be more on target. Exercise is work; it is the hard labor that our ancestors were required to do to stay alive. Thanks to technology, many of us can avoid any physical work and still obtain all the food and shelter we need to live very comfortably.

Unfortunately, this change occurred over the last 100 years or so and your genes have not adapted. So you still require the hard physical labor your ancestors did and if you don't provide your body with that, you will suffer the consequences.

Most of the patients I see suffer from "ED." That is not short for Erectile Dysfunction, but my term for Exercise Deficiency or Exercise Debt. Most of the two-thirds of the country who are overweight and tens of millions of others with high blood pressure, high cholesterol and diabetes, desperately need more exercise to control their underlying condition.

There simply is not much of a stronger tool to drop your insulin levels than exercise, and elevated insulin levels are one of the primary drivers for these types of illnesses.

Exercise really needs to be viewed as a drug and very few clinicians or patients understand this. I believe it is one of the most powerful "drugs" that we have in the treatment of type 2 diabetes. Unlike typical commercial drugs, exercise can actually cause one to go into permanent remission for diabetes.

Most of the patients I see have a serious exercise debt, and if they only walk for 30 minutes a few times a week they will never repay the principal on their debt. If they wish to optimize their health, they need to move toward about 90 minutes of cardiovascular exercise every day. This amount of exercise is only required in the treatment phase, though, and they can cut back to 45 minutes three times a week once they become healthy.

My personal form of exercise is running and earlier this week I wrote a post on [why I enjoy running](#).

Also, it is important to seek to include some strength-training exercise in your program in addition to the cardiovascular or aerobic-type training. This will complement your fitness and help provide a well rounded structural frame that will improve your overall health. I believe that aerobic fitness is a higher priority than strength training, so if you only have time for one then do the cardio exercises, as that will impact your insulin levels the most. But it is important to squeeze in twice-weekly strength training sessions if at all possible.

My newest revision of my personal exercise program, though, is to reduce my running (cardio) portion by one-third and use that time for strength training. The major advantage of this approach is that endorphins are still very high from the running and the relatively painful activity of lifting till muscle failure is made virtually painless. I actually enjoy strength training now rather than dread it and am very excited about this new modification.

Most people are clueless about exercise intensity and just don't understand that walking for 90 minutes isn't a sufficiently intense exercise. I explain to my patients that they need to go hard enough so that they are having a difficult time talking to

**someone and then drop back half a notch. If you can easily carry on a conversation with someone next to you, you are clearly going too slow to generate the aerobic benefits that exercise is capable of doing.**

**You do not need to monitor your heart rate to measure this intensity, and that makes it much easier to do.**

**One of the key principles I teach is to listen to your body. If your body will not allow you to exercise, either due to pain or worsening of your underlying condition, then you have no practical option but to honor your body's signals and not exercise.**

**Even though your body desperately needs the exercise to improve, you will only get worse if you violate your current limitations. So you may have to start with as little as one or two minutes a day. Apply the [Total Health Program](#) and as your body gradually improves so will your tolerance to exercise. Continue to push yourself until you reach the daily 90-minute level.**

**I find the energy psychology tool Emotional Freedom Technique, or EFT, an enormously powerful tool in helping people exercise. EFT is a form of psychological acupuncture treatment I recommend in order to optimize your emotional health. It can help you remove the blocks that prevent you from successfully implementing your program. You can learn the technique with [my free manual](#) and discover more about the connection between your emotional well-being and your overall health.**

**EFT is also one of the most powerful tools I know of to help people repair the bioelectrical short circuiting that impairs a person's immune system and makes them susceptible to developing rheumatoid arthritis, or for that matter any other autoimmune disease. I find it to be an essential tool in helping our patients recover from these diseases.**

Source: Mercola.com