

## Exercise! The Magical Elixir

Written by Dr. Ramin Manshadi M.D  
Wednesday, 23 November 2016 18:39

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In generations past, the population had greater amounts of physical activity. A high percentage of working adults did manual labor, be it in the fields or elsewhere, as opposed to today where so many are desk bound. Children would go out and play, rain or shine, warm or cold. They did not rely on computers, TVs or video games for their entertainment. Progress has been great for society. But in some ways-not for heart health.

The bottom line for good health is [exercise](#) . I believed it is truly the key, even more than diet. Please realize that i am speaking of moderate exercise. It is so simple. When you have moderate exercise, the heart becomes much healthier. When the heart is healthier, its owner enjoys an improved and happier life. Sure, you say. That makes sense. You already kind of know this. But do you know why?

One basic reason is that when you exercise and your body is in shape, your heart does not have to work as hard. With one pump of the heart muscle, you are able to send enough oxygen and nutrients to the rest of the body, rather than five pumps for someone who has not exercised. The heart is working more efficiently. Plus, those who do not exercise use more nutrients in their day-to-day living. So the heart again has to work harder to achieve the same goals in maintaining the body. This is why people who exercise have much lower heart rates than those who do not.

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The other positive aspect of exercise is hormonal release from the exertion. This causes the inner lining of the blood vessels- the endothelium- to become much healthier. I advise my patients that the first thing that goes bad, before you even develop any blockages, is the vessel's inner innings becoming dysfunctional. How? Mainly through the body's nitric oxide not functioning as it should. Nitric Oxide is naturally produced in the body, and it helps maintain elasticity of the vessel and assists the artery to dilate. The better the elasticity of the vessel, the better it performs.

This is a high factor in those that develop heart disease. As the function of the nitric oxide goes down, it is much easier to develop atherosclerosis. Why? if the inner innings of your artery are not healthy, the cholesterol can stick on the walls and cause inflammation.

If you can, imagine a lean roadway where cars move through smoothly, versus a roadway strewn with garbage on it that slows or blocks them. That in a way is what happens with cholesterol. Subsequently, when LDL ( bad cholesterol) travels through the arteries, if the inner lining is no smooth and has debris, the LDL adheres much easier and you get plaque buildup in the artery. Not only that , when the vessel's inner lining do not function well, it leaves them more vulnerable to damage, making it easier for the LDL particles to go beneath the endothelium to cause inflammation and start developing blockages. That is what creates atherosclerosis. Eventually, you will be in bad shape and vulnerable to a heart attack and subsequent organ damage.

Fortunately, if you exercise moderately, the inner linings of the vessels function much more smoothly. The more you exercise, the more you release nitric oxide. The bottom line is that those who exercise more have lower blood pressure as the inner linings function better. Plus, their weight goes down. I had a young male patient in his 30s who had high blood pressure and did not want to take drugs. I told him, " your condition right now requires that you need to take medication. But if you lose weight and you exercise, you may not need to continue on the blood pressure pills. However, you first have to prove to me that you can maintain that kind of program. Once you do, then I can slowly take you off the medication. " He liked the idea and committed to it. I saw him a month later and the change was already remarkable. He was running five miles a day, five days a week. He had dropped his weight by 20 pounds. I halved his medication. He came in month after that, by which time he had lost another 10 pounds, was exercising and maintaining normal blood pressure. Stopping his medication, I saw him again in another month. Now totally off medication-his blood pressure is normal.

I want to point out that five miles a day, five times a week is really moderate approaching high levels of exercise. Most cardiologists recommend something less intense-closer to 30 minutes,

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three times a week. Personally, I prefer to recommend at least 30 minutes-five days a week. So what type of exercise is recommended? if your body can handle it, running will give more benefit than walking. But walking is still beneficial. Again, any exercise is better than none. The goal is to raise your heart rate during exercise at least to 80 to 85 percent of our predicted maximum heart rate and maintain it for about half an hour.

There is an easy formula to assess what your maximum heart rate is. Simply take the number 220 and subtract your age. That means 220 minus how old you are. Then take the 85% of that number as your target heart rate to maintain while exercising. . Keeping your heart rate at that level, five days a week, will give you the most benefit. Running will certainly do this. If walking, a faster pace and/or going uphill will increase that heart rate as well. You simply need to find the right exercise for you and your body. Of course, you should discuss this with your doctor.

Unfortunately, many people do not want to work hard to lose weight, nor do they want exercise. Or. they do not have time. It also happens that they might have orthopedic issues and just cannot exercise. Those people will be taking medication.

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Dr. Manshadi MD, FACC, FSCAI, FAHA, FACP is among the top American cardiologists. He is the author of The Wisdom of Heart Health. The physician is an Interventional Cardiologist who treats patients from prevention to intervention. He is a CMA (California Medical Association) member since 2001. He is a Board-Certified physician with the American Board of Interventional Cardiology, American Board of Cardiology. He combines private practice with Academic Medicine. Presently, he serves as Associate Clinical Professor at UC Davis Medical Center and as Clinical Professor at University of the Pacific among other positions. In addition, he is the Chair of Media Relations for American College of Cardiology, California Chapter. The multi-faceted physician is licensed and certified in nuclear medicine, a subspecialty of radiology. In this regard, he is a member of the American Board of Nuclear Cardiology. It is noteworthy to mention that in his practice, he likes to use innovative tests. If you want to know more about Dr. Manshadi, you can click here: [Dr. Ramin Manshadi-Cardiologist](#). Dr. Manshadi is our health columnist and is available to answer your questions. You can e-mail him at [drmanshadi@megadiversities.com](mailto:drmanshadi@megadiversities.com) and the address of his official website is [www.DrManshadi.com](http://www.DrManshadi.com)