## **Regular Exercise Fends Off a Multitude of Problems**

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The beautiful spring weather is here, and summer will be upon us before we know it. Now is the time to remember that it's never too late to start an exercise program. The latest news is that well into our 90s, our body systems can be stimulated to respond to regular exercise.

"From the top of our heads to the bottom of our toes, physical activity is the stimulus that gets almost all our organs working at their best," Tufts exercise expert Miriam Nelson says.

She and her colleagues give 10 ways that inactivity can take a toll on our bodies because when we are inactive, our ability to transfer oxygen from the bloodstream to cells is diminished. When we can't get as much oxygen out of our blood, we can't walk up a flight of stairs as easily, and all our other systems are also affected by this loss. Here is the list:

• Diabetes. Insulin sensitivity appears to deteriorate when we are inactive, but it responds positively when we get back to regular training. The most common type of diabetes, type 2, actually occurs when the body becomes insensitive, or resistant, to insulin in the blood. As the insulin stops working, the blood sugar level rises, and diabetes sets in. Regular exercise can actually reverse the damage because it increases insulin sensitivity and makes the cells better at taking in glucose and processing it. If you love TV, remember that every two hours a day of inactivity is linked to a 14 percent increase in the risk of diabetes, as opposed to one hour of brisk walking, which is linked to a 34 percent lower risk. This makes diabetes most often a "sedentary disease."

• Cancer. A Harvard study says, "The evidence is fairly clear now that men and women who are physically active have a 30-40 percent lower risk of colon cancer compared to individuals who are not active." This seems to be true because activity stimulates a more active colon. The overweight also have a higher incidence of this disease. Increased activity can help with weight control. Also, regular exercise also appears to lower the risk of breast cancer by about 20 percent for post-menopausal women.

• The brain. "People who are more physically active are at lower risk for cognitive decline and dementia," says the director of the Division of Geriatric Psychiatry and Neuropsychiatry at Johns Hopkins. In a study of more than 3,000 older men and women, those who engaged in four activities, such as walking, household chores, gardening and jogging, during the previous two weeks were half as likely to be diagnosed with dementia five years later as those who took part in no more than one activity. Alzheimer's is a separate disease, however, and those who carry the gene that might cause the disease tend to show symptoms in their 70s rather than in their 80s, when most dementias start to appear.

• The heart. About 1.2 million Americans have heart attacks each year, and no one is surprised that couch potatoes have a higher risk of this happening. Exercise boosts good cholesterol and makes the lining of blood vessels more flexible. Regular exercise protects the heart through blood pressure reduction, insulin sensitivity, better oxygen supply and more flexible arteries, among other good things. Exercise training also has a wonderful effect on those who already have heart disease if they are given a regimen to suit their needs and are closely monitored.

• Stroke. Active folks are 25 percent less likely to have a stroke than their sedentary counterparts. This is because of a lowered blood pressure, improved HDL cholesterol and a subsequent reduction in blood clots. Regular activity protects the arteries that feed the brain as well as the heart. High blood pressure is the biggest risk factor for any stroke, so any way you can reduce it, go for it. Genes sometimes play a part here, and not much can be done about this except to stay as healthy as possible.

• Muscles. Both women and men find that as we age, muscles start to just wither away. It starts in the 40s for women and in the late 50s for men. For every decade after 50, we all lose some 6 percent of our muscle mass, leading to a 10 to 15 percent loss of our strength. But hey, we can build lots of that back up with strength training exercises. The earlier we start, the better. Even 100-year-olds can show some gain. So get started tomorrow.

• Bones. Fragile bones cause more than 1.5 million fractures each year in this country, but the disintegration starts decades before cracks appear. Bones can respond to activity, strength training and medicine, but this must be done only after a medical evaluation and prescription to help prevent any more bone loss.

• Mental health. Those who are active are less likely to develop depression, and regular activity can really help if you are already depressed. The right exercise seems to be more effective than increased socialization, antidepressant drugs or cognitive behavioral therapy, according to a recent study of 2,000 people.

• Weight. Weight gain is a real problem for those of us who are growing older. Often, our appetites for great food do not decrease, but our ability to maintain a high level of activity is seriously reduced. Watching TV is one of our prime enemies. I would be hard-pressed to throw out my late-night viewing of great old movies, but I make it a rule to never watch daytime TV except to keep an eye on the weather if needed. As we age, gaining weight and losing fitness go with the territory, so we must be vigilant and dedicated to get ourselves out there. We can easily gain 5 pounds a year by doing nothing, and often, this weight goes to the belly, the most dangerous place. Maintaining lost weight requires more physical activity than losing it in the first place. Those folks who have lost 30 to 50 pounds need to get in 60 to 90 minutes a day of real activity to maintain the loss.

• Immune system. If you frequently get colds, you might need to boost your immune system. Thirty to 45 minutes of walking about five days a week is good, but for sure, don't overdo it. Marathon runners have a higher risk of colds after a race because immune function goes down after a prolonged, intense bout of exercise. The same is true for inflammation. Regular exercise can reduce inflammation, but watch anything more strenuous because you can make things worse.

The bottom line, according to the Nutrition Action Health Letter, is that you should shoot for 30 minutes a day of moderate-intensity aerobic exercise, such as brisk walking, cycling, jogging or swimming to lower the risks of heart disease, diabetes and colon cancer. To keep off substantial amounts of lost weight, shoot for 60 to 90 minutes a day. To build muscle and prevent bone loss, do strength training at least twice a week. For tips on strength training, look up "Strong Women Stay Young" by Miriam Nelson (Bantam, 2000).

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