

Ask the Sports Dr.

BRANDON MAY 9, 2012 0

Exercise for Life: Preventing Disease and Increasing Longevity

We all know the positive effects that exercise can have on our external body, but did you know about the internal benefits? Regular exercise has been proven to help the body fight disease and improve your chances of living a longer and healthier life.

Cardiovascular disease, or heart disease, is the leading cause of death in the United States. One of the biggest benefits of regular exercise is minimizing the risks of cardiovascular disease. The heart is a muscle and just like any other muscle in our body, it needs to be worked out and strengthened in order to keep up with your lifestyle and continue to function properly. When you exercise, your heart will automatically beat faster in order to pump more blood throughout the body to supply integral oxygen to tissues. Many people don't realize that you can actually strengthen your heart muscle. With regular exercise, the heart muscle becomes stronger, ultimately improving your circulation, which, in turn, helps to promote cell growth and organ function.

Heart of the Matter

Regular physical activity helps control your weight and makes the heart stronger, which decreases the strain that may be put on your heart and significantly reduces the risk for heart attack or stroke. Regular exercise has also been shown to lower blood pressure and can actually increase the occurrence of "good" cholesterol (high-density lipoproteins, or HDL) and lower "bad" cholesterol (low-density lipoproteins, or LDL), which can significantly lower your risk of heart disease.

Being active boosts high-density lipoprotein (HDL), or "good" cholesterol, and decreases unhealthy triglycerides. This combination keeps your blood flowing smoothly, which decreases your risk of cardiovascular diseases. In fact, regular physical activity can help you prevent or

manage a wide range of health problems and concerns, including stroke, metabolic syndrome, type 2 diabetes, depression, certain types of cancer, arthritis and falls.

Aid in Diabetes

Individuals who are overweight and have excess body fat are also at high risk for developing type 2 diabetes. This disease is increasing at alarming rates—by 62% since 1990—and 17 million Americans now have it. Physical activity can enhance weight loss and help prevent and/or control this condition. Losing weight can increase insulin sensitivity, improve blood sugar and cholesterol levels, and reduce blood pressure—all of which are very important to the health of people with diabetes.

So, exercising, combined with a healthy diet, can improve blood sugar and cholesterol levels, which may help control diabetes without the use of medicine. Insulin levels respond to exercise, and by maintaining a more even insulin level in your bloodstream, appetite is controlled and your metabolism is kept at a healthy fat-burning state.

Apart from reducing your risk of developing type 2 diabetes, regular physical activity can also help reduce metabolic syndrome. Metabolic syndrome is a condition in which you have some combination of too much fat around the waist, high blood pressure, low HDL cholesterol, high triglycerides or high blood sugar. Research indicates that lower rates of these conditions are seen in people who exercise with at least moderate-intensity aerobic activity every week. And the more physical activity you engage in, the lower your risk will be. Many researchers believe that it is the amount of exercise—not the intensity—that is important. In other words, it's not how hard you exercise, but how much. And, any exercise is better than no exercise at all.

Cancer Connection

Being physically active lowers your risk of developing many types of cancer, most notably colon and breast cancers. Physically active people have a lower risk of colon cancer than do people who are not active. Physically active women have a lower risk of breast cancer than do people who are not active.

Colorectal cancer has been one of the most extensively studied cancers in relation to physical activity, with more than 50 studies examining this association. Numerous studies in the United States and around the world have consistently found that adults who increase their physical activity—either in intensity, duration or frequency—can reduce their risk of developing colon cancer by 30 to 40 percent relative to those who are sedentary regardless of their body mass index (BMI). The greatest risk reduction has been seen among those who are most active.

It is estimated that 30 to 60 minutes of moderate to vigorous physical activity per day is needed to protect against colon cancer. Physical activity may protect against colon cancer development by its effect on energy balance, hormone metabolism, insulin regulation, and by decreasing the time the colon is exposed to potential carcinogens. Physical activity has also been found to alter a number of inflammatory and immune factors, some of which may influence colon cancer risk.

The relationship between physical activity and breast cancer incidence has also been extensively studied, with more than 60 studies published in North America, Europe, Asia and Australia. Almost all the research indicates that physically active women have a lower risk of developing breast cancer than inactive women. Although most evidence suggests that physical activity reduces breast cancer risk in both premenopausal and postmenopausal women, starting regular exercise during adolescence may be especially protective. Although a lifetime of regular, vigorous activity is thought to be of greatest benefit, women who increase their physical activity after menopause may also experience a reduced risk compared with inactive women.

Whether it involves helping with heart conditions, chronic conditions such as diabetes or preventing cancer, one thing is clear—physical exercise does a body good.

Michael L. Gross, MD, is the founder and director of Active Orthopedics and Sports Medicine P.A., the section chief for sports medicine and the orthopedic director for the Center for Sports Medicine at Hackensack University Medical Center, as well as co-founder and medical director of the Active Center for Health and Wellness. Visit www.activecenterforhealthandwellness.com.