Exercises that Help Prevent Diabetes

The physical toll that diabetes takes on its victims is well known and extensive. Diabetes contributes to heart attacks and strokes. It can lead to blindness, organ failures, and limb amputations.

And it is a disease that has reached epidemic proportion in the United States. As of 2007, reports the Centers for Disease Control, 23.6 million Americans had diabetes. This figure represents a 13.5 percent increase—in just *two* years—from the 20.8 million people who had the disease in 2005.

The financial toll is equally staggering. According to the American Diabetes Association, “[o]ne out of every five health care dollars is spent caring for someone with diagnosed diabetes, while one in ten health care dollars is attributed to diabetes.” This figure is expected to grow apace with the ever-increasing rates of diabetes.

These dangers have prompted much research into the development of diabetes and how to curb it. New studies have revisited the positive role that exercise may play in ending the diabetes epidemic. They have found that certain mild physical activities are excellent diabetes exercises.

These studies add to the accumulated evidence that exercise is effective at preventing—and even reversing—this disease.

## Can Exercise Really Help Diabetes?

The scientific evidence that exercise plays a positive role in managing diabetes is overwhelming. Indeed, a Cochrane Systematic Review of the available research on diabetes found that exercise might be even more effective than diet in preventing or controlling diabetes.

The Cochrane researchers examined 36 published articles that included 18 research trials on 1,467 people who had type 2 diabetes. After exhaustive analysis, the scientists were unable to find any quality studies that supported a dietary link in preventing diabetes or easing its symptoms. They did, however, find such a link between exercise and diabetes.

It appears that, to a certain extent, *all* exercises are diabetes exercises that can help to prevent both the onset and the complications of diabetes.

**How Exercise Helps Diabetes**

Exercise works so well at treating diabetes, and the complications of diabetes, because it stimulates the body’s metabolism. Diabetes is, in effect, the result of a disordered metabolism.

For proper digestion, pancreas-produced insulin is necessary to move glucose into the cells. This nourishes the whole body. Diabetes, however, interferes with this process. In type 1, or insulin-dependent diabetes, the pancreas produces little or no insulin. There is no known cure for type 1 diabetes and neither exercise nor diet has ever appreciably affected it.

But type 2 diabetes is preventable and, in some cases, even reversible. In this form of diabetes, the body either cannot use the insulin at all or it uses it inefficiently—a condition known as insulin resistance. According to Web MD, over 90 percent of people who have diabetes have type 2.

Studies have shown that most cases of type 2 diabetes are life-style induced. For instance, the major risk factors for developing diabetes are obesity and *physical inactivity*. Both of these risk factors can be modified by increased physical activity, the kind that diabetes exercises provide.

# Why Exercise WORKS

Researchers have long studied the effects that exercise, or lack of exercise, has on diabetes. One such study showed that people who exercise as little as 2 ½ hours per *week* can slash their risks of developing diabetes by as much as 58 percent.

Moreover, a 2005 study, published in the journal *Diabetes Care,* showed that people who already had type 2 diabetes could significantly improve their condition by walking just 3 miles a day.

These and other studies have proven that exercise helps to regulate spiking blood sugar levels that can lead to diabetes and the complications of diabetes. It also improves insulin sensitivity.

# Diabetes Exercises

Though research has shown that any amount and type of exercise is good for managing this disease, certain diabetes exercises have proven to be particularly effective—and they don’t have to be either strenuous *or* exhausting.

In 2007, Dr. Ronal Sigal of the University of Calgary teamed with researchers at the University of Ottawa in studying 251 people with type 2 diabetes. Their research subjects ranged in age from 39 to 70 and none had been regular exercisers before the study began.

The researchers split them into four groups, each with a different type of exercise or activity level. One group did aerobic exercises, one group did resistance training, one group combined the two forms, and one group did not exercise at all.

At the conclusion of the study, all had shown a significant improvement in their blood sugar readings—except for the non-exercisers. The researchers concluded that all forms of regular physical activity were good diabetes exercises in that they all helped to regulate blood sugar and lessen the complications of diabetes.

# Easy Does it

This is good news for diabetes-sufferers. According to Web MD, approximately 80 percent of those who have diabetes are obese. Obesity can make aerobics and other forms of intense exercise difficult to do regularly. As a result, many obese people will not continue long-term exercise programs.

But studies have shown that they—and other reluctant exercisers—will stay with a program that is easier and less exhausting, a program that they consider to be almost fun or enjoyable. Recent studies show that some traditional Chinese exercises may be very effective diabetes exercises.

# Arm Swinging Exercises

A study published in *Diabetes Research and Clinical Practice* (2008), “Swing Your Arms for Better Diabetes Control,” detailed the results that this low-impact Chinese exercise had on 43 people with type 2 diabetes.

These Thailand subjects were between the ages of 50 and 70 and all had been non-exercisers before the study began. For 8-weeks, the subjects simply added 30 minutes of arm swinging (ASE), 3 times a week, to their routines. By the end of the study, all had shown an improvement in their blood sugar levels.

# Tai Chi and Quigong

But ASE is not the only Chinese exercise that has shown a positive effect on type 2 diabetes. Tai Chi and Quigong have proven to be equally as effective in preventing or controlling diabetes.

Both Tai Chi and Quigong are ancient, traditional Chinese exercises that utilize controlled, but very slow movements. (The practice resembles a type of slow motion martial arts.)

A study published in the *British Journal of Sports Medicine* reported that 12-weeks of Tai Chi and Quigong exercises lowered the risk of developing diabetes for those susceptible to the disease.

Another study by Dr. K.D. Yang of the Chang Gung University in Taiwan showed that Tai Chi and Quigong exercises improved the blood sugar levels of those who already had the disease.

Moreover, the subjects of *both* studies found these exercises to be enjoyable, which could encourage them to continue using Tai Chi and Quigong for the rest of their lives.

Although all physical activity can help diabetes, these studies show that the gentle Chinese arts of ASE, Tai Chi, and Quigong can encourage continued participation for those most at risk for developing diabetes—the sedentary and the obese—and perhaps help to end the diabetes epidemic.