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Understanding Diabetes

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by Cristina González

It starts in the pancreas. It seeps into muscle, fat and liver cells. You feel tired, thirsty, your vision blurs. Left untreated, it spreads to the kidneys, the feet and legs, the heart. These are the complications from diabetes, one of the leading causes of death and disability in the United States.

Almost 26 million people nationwide are diabetic, and the rates climb for Latinos—the risk of diagnosed diabetes is 66 percent higher among Latinos than non-Latino white adults.

Here, everything you need to do to lower your risk and live a healthy, diabetes-free life, thanks to advice from Athena Philis-Tsimikas, MD, corporate vice president at Scripps Health and chief medical officer of the Scripps Whittier Diabetes Institute in La Jolla, California.



What is diabetes, and what changes does it cause in our bodies?

Diabetes is a disease that affects the body's ability to produce or use insulin, a hormone made by the pancreas that helps transport glucose (blood sugar) into the body's cells. Without enough insulin, the body cannot use sugar for energy. The sugar builds up in the bloodstream instead, which disturbs normal body functions. When blood sugar remains high for prolonged periods, it can damage the heart, eyes, kidneys and limbs. Left untreated, diabetes can lead to serious complications such as heart disease, stroke, vision loss, kidney disease and infections of the feet and legs.

What are the different types of diabetes?

There are two main types of diabetes: type 1 and type 2. Another type of diabetes, called gestational diabetes (GDM), develops during pregnancy; it may or may not go away after the baby is born. Type 1 diabetes affects 5 to 10 percent of those with diabetes, mostly children and young adults. It is an autoimmune disease, which means the body's immune system attacks and destroys the cells that produce insulin. As a result, the pancreas doesn't make enough insulin or stops making it altogether. Unlike type 1 diabetes, type 2 is greatly affected by obesity and lack of exercise. Accounting for more than 90 percent of people with diabetes, type 2 diabetes usually occurs in adults, but is on the rise among teens and children as obesity becomes more common in these groups.

How is diabetes treated?

Diet, insulin and oral medication to lower blood glucose levels are the foundation of diabetes treatment and management. The type of diabetes you have will dictate your treatment. Type 1 diabetes can be successfully managed through lifestyle and insulin replacement. The first step is monitoring your blood sugar. Depending on your individual plan, you may check your levels weekly or daily. You will also need insulin in the form of an insulin pump or injections. Many people with type 2 diabetes can control their blood glucose by following a healthy meal plan and exercise program, losing excess weight and taking oral medication. Medications for each individual with diabetes will often change during the course of the disease. Some people with type 2 diabetes may also need insulin to control their blood glucose.

Who is most at risk for diabetes and why?

There are different factors to look at here: lifestyle, ethnicity and genes. Diabetes is a hereditary disorder, and you must carry the genes to develop the disease. However, the environment plays a large role in whether you might develop the disease. You may have a history of diabetes in your family, but if you keep your weight in an optimal range and exercise regularly you may never develop the disease. Something you can't control is your ethnicity. Latinos, African Americans and Native Americans have a two- to threefold higher rate of diabetes than the Caucasian white population. Among [Latinos], the risk of diagnosed diabetes was about the same for Cubans and for Central and South Americans, 87 percent higher for Mexican Americans and 94 percent higher for Puerto Ricans.

Why are Latinos more at risk for diabetes?

Although we do not know the exact reason behind why Latinos develop diabetes, more commonly it seems likely that they have inherited genes that make them more susceptible to developing the disease. It is possible that these genes may have been protective thousands of years ago when food was scarcer and having these genes allowed the population to survive, which is a good thing. Now that we live in an environment where food is plentiful and we have reduced activity levels, these genes may now give us the propensity to develop diseases such as diabetes instead of protecting us.

What can individuals do to lower their risk?

You can't change your genes or your race, but you can do a few simple things: Watch your weight, eat healthy, be active (physical activity at least three times a week) and control your blood pressure and cholesterol. And if you notice any of the symptoms of diabetes (extreme thirst or hunger, exhaustion, urinating more than usual, losing weight, slow healing sores, blurry vision, losing feeling or having tingling in your hands or feet), see a doctor immediately.

For more information from the Scripps Whittier Diabetes Institute, [click here](#).