

TYPE 1 AND TYPE 2 DIABETES:

UNDERSTAND THE DIFFERENCE

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Susan and Mary both have diabetes. Susan manages her diabetes by eating healthy, being active and taking the diabetes medicine metformin every day. Mary manages her diabetes by eating healthy, being active and taking insulin before she eats and at bedtime.

Most experts agree that everyone's diabetes is different. Different doesn't have to mean good or bad, better or worse.

Type 1 diabetes is considered a disorder related to the immune system. These types of disorders are called autoimmune diseases. Type 2 diabetes is not considered an autoimmune disorder.

Some might think that Mary's diabetes is worse than Susan's because Mary takes insulin. Some may even think Mary has to take insulin because she has done something wrong. The truth, however, is that Susan and Mary have different types of diabetes that need different types of treatment.

Most experts agree that everyone's diabetes is different. Different doesn't have to mean good or bad, better or worse. Some people manage their diabetes just by eating healthy and being active; some also take pills and some also take injections. Diabetes treatment depends on the type of diabetes you have.

THE IMMUNE SYSTEM

Your immune system, when working right, helps your body fight infections and certain diseases. It is a complex system that can tell the difference between what is part of you and what isn't, what's good for you and what's not.

When your immune system is working right, it fights things such as infections. It also has a way of remembering types of infections and diseases that it fought off in the past, and will fight them off again if they return.

An autoimmune disorder occurs when your immune system is not working right. Instead of fighting something that is bad for you, it attacks part of your own body. This is what happens in a person who has type 1 diabetes: The immune system kills the beta cells (the insulin-producing cells) of the pancreas, which results in high blood glucose levels.

The attack on the beta cells doesn't happen all at once. Early on, most people go through a period when some beta cells still make insulin. This is called the "honeymoon period." During that time, a person needs to take very little or no insulin.

If the attack is not stopped in time, all the beta cells will be destroyed, and a person will need to take insulin on a regular basis, either by shots, pens or an insulin pump.

OTHER AUTOIMMUNE CONDITIONS

Besides type 1 diabetes, the immune system is related to various conditions, such as rheumatoid arthritis, thyroid disease, multiple sclerosis, lupus, psoriasis and celiac disease. People who have type 1 diabetes have a high incidence of other autoimmune conditions such as thyroid disease and celiac disease. Emerging treatments for type 1 diabetes might also help other autoimmune conditions.

HOPE FOR THE FUTURE

Understanding that type 1 diabetes is an autoimmune disease has been a big step for scientists working toward finding new treatments, cures and even prevention.

According to some studies, there are promising treatments for people who have recently been diagnosed with type 1 diabetes. These studies look at ways to preserve beta cell function and protect the beta cells from further damage. Early results have shown that this kind of treatment may result in better blood glucose control with less insulin. Some treatments have also been shown to lessen severe swings of low and high blood glucose levels. In time we'll know if this also means fewer complications and a better quality of life.

Learn more about clinical studies available for people who have autoimmune diseases at clinicaltrials.gov and for people who have autoimmune type 1 diabetes at the Juvenile Diabetes Research Foundation at trials.jdrf.org.

2 types of diabetes

TYPE 1 DIABETES used to be called "juvenile onset diabetes." It was called this because, in the past, it was felt that most people who developed type 1 diabetes were children and young adults. However, type 1 diabetes can also occur in older age groups. It was, and sometimes still is, called "insulin-dependent diabetes mellitus" (IDDM) because all people who have this type of diabetes need to take insulin. The term IDDM was too general, though, because many people who have type 2 diabetes also take insulin.

TYPE 2 DIABETES used to be called "mature onset diabetes." In the past, it was felt that most people who developed diabetes later in life (after age 40) had this type of diabetes. We now understand type 2 diabetes can and does occur in younger people. It was also called "non-insulin-dependent diabetes" (NIDDM) because, unlike type 1 diabetes, not all people with this type of diabetes need to take insulin. We now know, though, that many people who have this type of diabetes do need to take insulin.

Both type 1 and type 2 diabetes need to be taken seriously. Just because all people with type 1 diabetes need to take insulin doesn't mean type 1 diabetes is worse than type 2 diabetes. It's just different.