5 Theories About the Cause of Type 1 Diabetes

by ABIGAIL DAVID

What Causes Type 1 Diabetes?

If you have just been diagnosed with type 1 diabetes, you're probably wondering, how this happened, was prevention possible, and other feelings of confusion and guilt.

The fact of the matter is, there is nothing you could have done. The exact cause for type 1 diabetes is totally unknown and the disease itself is unpreventable. There are speculations as for what can trigger the onset of type 1 diabetes, but nothing is proven.

Type 1 vs. Type 2 Diabetes: Understanding the Difference

This is the main difference between type 1 and type 2 diabetes and why so many type 1 diabetics are often given exercise or eating advice from strangers about how they could've stopped themselves for getting diabetes. Type 1 diabetes is an autoimmune disease while type 2 diabetes is a metabolic disease – completely different in terms of what kind of care needs to be given.

When someone gets type 1 diabetes it's because their immune system has mistakenly started to attack the insulin-producing cells in the pancreas. Without insulin, a type 1 diabetic can not metabolize glucose, when left untreated a person with type 1 diabetes would die within a couple of months of getting diagnosed, which is why its absolutely a miracle and so amazing that insulin exists for us to use!

Potential Type 1 Diabetes Causes

As for possible causes that trigger the immune system to destroy the insulin-producing cells, there are a few more researched theories that could play a big role. We will dive into some commonly thought of type 1 diabetes causes and their theories now!

Virus

Getting a virus can elicit a very strong immune response from the body. There are many speculations and specific viruses such as mumps, rubella, enteroviruses and others could be the cause of type 1 diabetes. It is thought that these viruses can play a part in unmasking autoimmunity in the body and confusing the immune system on which are the bad and good cells that need to be destroyed. The fancy, scientific term for this confusion is called molecular mimicry.

Another factor to consider when blaming type 1 diabetes on a virus is the specific timing of the infection. The body needs to be the perfect host, with the perfect cells present that allow autoimmunity to occur.

There is also speculation that some anti-viral immunization shots can trigger the type 1 diabetes immune response and there have been cases of people who were diagnosed closely after getting specific shots. Again,

this is only speculation and is very dependent on the persons own body and reaction to certain cells

Genetics

While type 1 diabetes can be random and not be caused by genetics, the probability of developing it does increase if it runs in the family.

If a child is born into a family where type 1 diabetes is present, their chances of developing it as well are 5 percent vs. 0.3 percent chance if there is no type 1 diabetes present.

As for direct family members, if a father has type 1 diabetes, the likelihood of passing it on is 5 percent vs. a 3 percent chance if the mother has type 1 diabetes. If a sibling has type 1 diabetes, the chance the other siblings will have it is 8 percent, excluding the case of identical twins where the percentage jumps up to 50 percent.

Vitamin D

It has been shown that people afflicted by autoimmune diseases often have low levels of vitamin D. Vitamin D is key to having healthy islet (insulin-producing) cells and important to their survival in the body.

Studies have shown that most patients diagnosed with type 1 diabetes also had very low levels of vitamin D. Another fact to take into account with the relation of vitamin D to type 1 diabetes is that the disease itself has been much more prevalent in northern countries. Some of the countries highest rates of type 1 diabetes include Sweden, Norway, Canada, and Denmark.

Diet

There has been some evidence that shows that a child's diet can play a role in the development of type 1 diabetes.

Studies have been shown that if a child drinks a lot of cows milk, they could have a high chance of developing type 1 diabetes. It has been studied and shown that the bovine insulin in the milk can confuse the human body.

Another Autoimmune Disease

About 25 percent of people who have one autoimmune disease will develop another one in their lifetime. This could be another factor to take into consideration when accounting probable type 1 diabetes causes. Most likely this is associated with genetics and having multiple autoimmune syndromes – which another category in itself in terms of passing it along.

Overview

There are so many possible triggers of the development of type 1 diabetes, more than on this list. It is important to be informed but also impossible to prevent type 1 diabetes from developing, so it isn’t something to get stressed over.

Clearly, a lot of stars have to be aligned in order for type 1 diabetes to manifest, since it is quite rare. If you do have type 1 diabetes, think of yourself as a unicorn!