

Future of Personal Health

Everything You Need to Know About Type 1 Diabetes

[Prevention & Treatment](#) In the U.S., 40,000 people are diagnosed with Type 1 diabetes each year. We asked two industry experts what patients need to know.



Jay S. Skyler, M.D., MACP
Professor of Medicine, Pediatrics, &
Psychology, Deputy Director,
Diabetes Research Institute



Robert M. Gabbay, M.D., Ph.D.
Chief Medical Officer,
Joslin Diabetes Center

What are the first steps a person should take when diagnosed with type 1 diabetes?

Jay Skyler: Upon diagnosis, a person should seek the care of a specialist who regularly deals with T1D – usually an endocrinologist or pediatric endocrinologist. That specialist should have access to a diabetes management team that includes a nutritionist/dietitian and a diabetes nurse educator. Two crucial things are education about diabetes and a lifestyle management plan. The latter usually involves both a medical nutrition plan and a physical activity/exercise plan. It is also important to establish therapeutic goals, initiate insulin therapy, and ideally initiate use of a continuous glucose monitor (CGM) that provides alerts and alarms that warn the person if the glucose level is too low or too high.

Robert Gabbay: There is a lot to adjust to and learn about with a new diagnosis. One needs to learn survival skills up front, injecting insulin, checking blood sugars and over time how to adjust insulin to various things- food and carbohydrate intake, exercise and blood glucose readings. And it is important to identify health care professionals who can help you -- an endocrinologist, diabetes educator, dietitian and others as needed.

Health professionals can also help you with the psychological adjustment as well. It is critical to have the right attitude, feel confident in your ability to manage diabetes and not let it stop you from doing what you want in life.

What are some misconceptions about T1D?

JS: One misconception is that type 1 diabetes is inherited and that to develop it, you need to have someone in your family with the disease. Although people with T1D inherit the genetic risk of it, they do not inherit the disease per se. Consequently over 80% of people who develop it are not aware of a family member who already has it. On the other hand, once a person is diagnosed, that means that their family members are at increased risk of T1D.

RG: The biggest misconception I hear as a physician is that people with type 1 diabetes can't eat any sweets at all. People with type 1 diabetes can eat sweets in moderation as long as they are adjusting their insulin in relation to the carbohydrate consumption.

There are a whole host of other misconceptions which is why it is important to seek out reliable information from sources that specialize in diabetes such as endocrinologists, diabetes nurse practitioners and/or certified diabetes educators.

Can you explain the connection between autoimmune and diabetes?

JS: The body's immune system is designed to protect us from infections and similar environmental insults. If the immune system goes awry, it may turn in a self-destructive mode against some organ in the body. In the case of T1D, the immune system has turned against the insulin-producing cells of the pancreas, which leads to their loss of function and destruction.

RG: Type 1 diabetes is caused by an autoimmune system attack on the islet cells of the pancreas, specifically the beta-type islet cells which produce insulin. We don't fully understand what triggers this autoimmune reaction. There are some genetic components, and there are different theories that viruses or other environmental factors may trigger the autoimmune reaction. A type 1 diagnosis is typically made when almost 90 % of the islet cells are destroyed in the autoimmune attack and blood sugars rise.