Islet Cell Transplant Clinical Research Program

For Adults with Type 1 Diabetes

Approximately one million people in the United States have type 1 diabetes. About 30 to 50 percent of them will have some type of complication of diabetes during their lifetime. A person’s risk for these complications increases over time as exposure to high blood glucose (sugar) levels increases.

Currently, the only way to restore normal blood glucose levels in people with type 1 diabetes, without the risk of low blood sugar, is to replace the person’s islets of Langerhans. These islet cells are found in the pancreas. Only a pancreas transplant or an islet transplant (performed in a clinical trial) can replace the islets.

Schulze Diabetes Institute at the University of Minnesota is one of the leading centers in the world perfecting the use of donated human islets for transplantation. Bernhard Hering, M.D., heads the Institute’s Islet Transplant Program. He is widely regarded as the world’s foremost expert on islet transplantation.

The risk of severe low blood glucose

Insulin therapy, whether by injection or insulin pump, is life-saving. However, insulin therapy is not perfect. Most people with type 1 diabetes still have blood glucose levels that are above normal. This puts them at risk for long-term complications of diabetes. Patients who successfully keep their blood glucose levels near normal often have trouble with low blood glucose (hypoglycemia).

After a number of years with type 1 diabetes, some people lose the early warning signs of low blood glucose. These signs include sweating, dizziness, irritability and extreme hunger. The inability to sense low blood glucose is called hypoglycemia unawareness. This raises the risk of severe hypoglycemia. When you need help for another person to raise your blood

To see if you are eligible for an islet transplant clinical trial, please visit our Web site listed below. For questions, please call: 612-626-3016.

Location:
Schulze Diabetes Institute
University of Minnesota
420 Delaware St. S.E.
Minneapolis, MN 55455
www.diabetesinstitute.org
www.uofmtransplant.org
sugar, you have severe hypoglycemia. For example, someone else may need to give you juice, soda pop, or glucagon to raise your blood glucose.

**Islet transplant may offer safe effective treatment**

The goal of islet transplant clinical trials is to offer a safe and effective treatment of type 1 diabetes. When a person takes insulin through injections or a pump, there is always a chance that excess insulin will cause hypoglycemia. The possible advantage of an islet transplant is that it would help the body maintain normal blood glucose at all times. That would mean no more low blood glucose. This is especially helpful for people who have trouble with severe hypoglycemia.

Unlike a pancreas transplant, islet transplant does not require major surgery. During the islet transplant procedure, the patient is under conscious sedation. The surgeon injects the islets into the patient’s liver. There, they secrete insulin directly into the circulatory system to control blood sugars. The whole procedure takes about 60 minutes.

To qualify for an islet transplant clinical trial at the University of Minnesota, you must meet the following criteria:

- Have had type 1 diabetes for more than five years
- Be age 18 to 65
- Be checking blood sugar at least three times per day
- Be administering at least three insulin injections per day, or using an insulin pump
- Have a complication from diabetes, (such as not having warning symptoms when blood sugar is low)
- Had at least three diabetes care visits in the last year

To see if you qualify for a clinical trial, visit the Schulze Diabetes Institute Web site listed below.