

## DID YOU KNOW?

There are two very different types of diabetes. Type 1 Diabetes is when your body no longer produces insulin because the immune system kills the cells in the body that produce insulin. Insulin is essentially the key that allows the glucose (sugar/energy) from your blood into your cells. Since people with type 1 diabetes can't produce their own insulin, they must put insulin into the blood stream 24 hours a day through injections or an insulin pump (*See attached picture of the sensor and insulin pump infusion needles that are injected under the skin in the stomach or lower hips and need to be changed ever 48 to 72 hours in children. Imagine how hard it is to get the average five year old to brush their teeth...now imagine the strength and courage needed, at any age, to administer these needles every few days*). Without insulin your blood sugar will become very high resulting in seizures, coma or death. To properly determine how much insulin a child with type 1 diabetes needs, they test their blood every two hours, around the clock.

A child's body is constantly growing and changing, therefore the amount of insulin a child requires can vary from day to day. There are many different factors involved to determine the amount of insulin needed and too much insulin in the body will result in low blood sugar levels resulting in seizures, coma or death. Unfortunately, determining the amount of insulin is not a science, but rather an art. Adrenaline, growth hormones and stress on the body can all affect blood sugar levels and the amount of insulin required. Someone with type 1 diabetes must calculate the amount of insulin for everything they eat. You will often see moms inconspicuously counting every goldfish cracker their child eats at a birthday party or trying to guess the carbohydrate/sugar content in an orange at a soccer game.

Normally, insulin in the body starts working the second a person looks at food. However, for someone with type 1 diabetes the insulin that is injected can take two to three hours to metabolize in the body, resulting in very unstable blood sugars throughout the day. High and low blood sugars affect how a person feels resulting in blurred vision, headaches, nausea, confusion, irritability and exhaustion.

Parents of children with type 1 diabetes are up all night testing blood sugar levels -- giving apple juice to prevent low blood sugars and administering insulin to prevent high blood sugars. **There is no vacation from diabetes.** Every 2 hours of every day—every meal, every sports activity, every play date, when they are healthy, when they have a cold, and even when they are sleeping—parents are making decisions to maintain tight control of the diabetes in their little ones.

It is a misconception that you can grow out of type 1 diabetes or that it can be controlled by diet and exercise like type 2 diabetes. Type 1 diabetes is an autoimmune disease -- it is not a result of obesity or a poor diet. While diabetes is sometimes genetic in most cases the cause is unknown. Unfortunately there is no cure for type 1 diabetes **YET!** Only with a national enlightenment will we be able to develop a cure for type 1 diabetes and other chronic diseases that affect children. There have been many amazing advances in care over the last five years and we are grateful for anything that will help the quality of the day to day life for our children. However, our children deserve more... they deserve a cure! Thank you for helping us light that way to a cure.