

Diabetes Mellitus, Type 1, Child

What is it?

Diabetes mellitus means that there is too much glucose in the blood. Glucose is a form of sugar.

Your child has a form of diabetes called type 1 diabetes. This means that your child's body does not make insulin. Insulin is normally made by the pancreas, a gland near the stomach.

When we eat, food is digested in the intestinal tract. From here, sugar and other nutrients enter the blood. Insulin helps sugar move out of the blood and into the cells of the muscles, brain, and other tissues of the body. Some sugar is used right away for energy. Some is stored for future use in body cells or as fat. Without insulin, sugar stays in the blood. It does not enter the muscles, brain, and other tissues. Then the organs and tissues do not have enough energy to work well. The sugar in the blood also damages tissues like nerves.

What is the cause?

Your child's pancreas is damaged. For some reason, your child's immune system has attacked the cells in the pancreas which make insulin. Normally the immune system fights off infection. Sometimes the immune system attacks parts of the body instead. We do not know exactly why this happens. Diabetes often runs in families. A child who has close relatives with diabetes has a higher risk of developing it.

What are the symptoms?

When diabetes is first discovered, your child's blood sugar may be very high. This may have been going on for some time. This untreated high blood sugar can cause problems such as:

- Weight loss, often despite eating more than usual
- Urinating often
- Frequently being thirsty and hungry
- Bed-wetting or having to get up at night to urinate
- Weakness and being more tired than usual

Once we start treating your child's diabetes, your child should feel normal.

How is it treated?

Our main goal is for your child to lead a normal life. Another goal is to prevent health problems caused by diabetes. We do this by keeping your child's blood sugar levels as close to normal as possible.

Your child needs to be given insulin every day. Insulin is given in a shot (injection). There are several different types of insulin. They all lower the amount of sugar in the blood. Treatment also includes exercise and eating the right diet. It is also necessary for your child to maintain a healthy weight. In some cases we treat a child in the hospital at first. We do this when blood sugar is dangerously high. We may do it to give your family time to learn how to care for diabetes. We may have you keep a school-age child at home until you are comfortable letting the child return to school. The school will need to know about your child's diabetes and how to reach you or us if there is a problem.

You will need to learn how to use insulin. You also need to learn how to monitor your child's blood sugar several times a day. You will need to learn how to adjust your child's daily doses of insulin. The daily dose will depend on your child's blood sugar measurements. You and your child can easily do blood testing at home. We will also teach you to test your child's urine at home.

Good eating habits are important in the care of diabetes. In people who are not diabetic, blood sugar goes up after each meal. The body then produces a little more insulin. This makes the blood sugar level go back down. Your child's body does not make insulin. Therefore, your child's blood sugar levels can go very high after eating. We will discuss how eating right can help your child avoid very high blood sugar levels.

Too much insulin can lower blood sugar too much. This is called hypoglycemia. A low blood sugar can be dangerous. In the short term, it is more dangerous than a high blood sugar. Your child must eat regular meals. If your child is not eating, you may have to withhold or reduce the insulin until they eat. We will teach you how to recognize this problem and how to treat it. Exercise also lowers blood sugar. Your child's muscles use more sugar then. We may need to make changes to insulin doses if your child begins to exercise more. For example, if your child starts a new sport you may notice changes in blood sugar levels. You will have to adjust for these changes. Your child may need to eat more at a meal or may need to snack before exercise. Or we will lower the insulin dose. Illness can raise blood sugar. Being less active can also cause blood sugar to rise. When your child is ill, you may need to test the blood sugar levels more often. The insulin dose may need to be adjusted.

This may sound very complicated. But you will have plenty of information and support. It takes a team approach to help you care for your child's diabetes. Your team might include a doctor who specializes in diabetes, a nurse specialist, and a dietitian. We may send your child to other doctors at times. For instance, we suggest a yearly eye exam with an eye specialist. There are often free classes that can help you and your child understand what diabetes is and how to deal with it. Talking with parents of other children who have diabetes can help too. We will work closely with you to make sure you understand what to do.

What can I expect?

Often when a child is first diagnosed and treated for diabetes, the pancreas is still making a little insulin. Because of this, the dose of insulin may be lower for a while. Once the pancreas stops making insulin, higher doses of insulin will be needed. There is no cure for diabetes, although research is going on. At this point your child will need treatment all his or her life. We will need to see the child regularly. We will do tests at these visits. If needed, we will treat your child for other problems caused by the diabetes. When someone in the family has diabetes, the whole family is affected. Others in the family will need to know some things, like how to treat low blood sugar.

Classes and support groups for families will help. It is natural to feel angry or depressed when you first learn your child has diabetes. You may feel overwhelmed. Your child may also be upset. We can help you understand and work through these feelings. We may suggest counseling for your child. Counseling can help children adapt to having diabetes. It can also help them take better care of themselves.

What to watch for.

Never run out of insulin. Your child needs this every day. Do not skip meals and snacks. Do not skip insulin doses.

There is a danger that your child's blood sugar may get too high or too low. Both of these conditions can be life-threatening. Learn to recognize the signs that blood sugar is out of control. Get immediate medical help if this happens.

Watch for trends in your child's blood sugar levels - either consistently high or consistently low. When your child starts a new exercise program or sport, watch for problems with low blood sugar. We may have to adjust your child's diet or insulin doses.

Call us whenever your child is ill. We can help you make changes in the insulin doses or diet, if necessary. Call us any time your child vomits or refuses to eat.

Let us know if your child has sleep problems or bad dreams. This may mean that your child has blood sugar problems during sleep.

