



Children and Diabetes

Diabetes is a chronic disease caused by problems with the production and supply of insulin in the body. Insulin is needed to transport glucose from the blood into the cells of the body.

Diabetes occurs when the body is unable to keep blood glucose levels within the normal range.

Types of Diabetes

There are three different types of diabetes. These are:

- Type 1
- Type 2 (non-insulin dependent and adult onset)
- Gestational Diabetes (diabetes during pregnancy)

As Type 1 diabetes relates most specifically to children, we will focus only on this form of diabetes.

Type 1 Diabetes

Type 1 diabetes usually effects children and adolescents. It involves the body's immune system destroying the insulin producing cells in the pancreas, removing the body's ability to produce insulin. People with type 1 diabetes must inject insulin several times a day for survival. A combination of genetic and environmental factors are considered to be the cause of type 1 diabetes.

A large number of factors influence blood glucose levels, including food intake, stress, hormonal changes, periods of growth, duration and type of physical activity, medications, alcohol, illness, infection, menstruation and fatigue.

When blood glucose levels swing too far in either direction, two emergency situations can develop: hypoglycaemia (low blood glucose) or hyperglycaemia (high blood glucose).

Hypoglycaemia (low blood glucose)

Hypoglycaemia, which is sometimes known as an insulin reaction, insulin shock or 'hypo', can come on rapidly. Low blood glucose may be caused by eating too little food, leaving too much time between meals, too much physical activity or taking too much insulin. The condition must be treated quickly because hypoglycaemia can worsen quickly.

Left untreated, the blood glucose level will continue to fall, starving the rest of the body of glucose and energy and leading to serious episodes such as blacking out. Eventually the person will fall into a diabetic coma.

Symptoms include:

sweating	trembling	lack of co-ordination	slurred speech
irritability	crying	rapid heartbeat	pallor
nausea or vomiting	hunger	lack of concentration	loss of consciousness

A mild hypo is treated by consuming sugary food or drink followed by something more substantial, such as a sandwich as well as resting the person. If symptoms persist, seek urgent medical aid.

Hyperglycaemia (high blood glucose)

Hyperglycaemia usually develops gradually, although it can occur quickly if the person is ill. Symptoms include:

excessive thirst	frequent urine	drowsiness
lethargy, fatigue	laboured breathing	blurred vision

Causes of hyperglycaemia include insufficient insulin, dietary indiscretions, infections, stress or illness.

Hyperglycaemia is treated by administering extra insulin. The individual needs to do this themselves (or a parent). If there is no improvement, or no access to insulin at the time urgent medical aid should be sought.

Some helpful websites in relation to diabetes are:

www.jdf.org

www.diabetes.org/ada/team4.asp

www.childrenwithdiabetes.com