

Type II Diabetes in Children

When people think of diabetes, they often think of the lifelong insulin shots needed by children with Type I diabetes or the inactive, overweight adults with Type II diabetes. With the rising number of overweight children in the United States, Type II diabetes, once only diagnosed in adults, is currently diagnosed in children at an alarming rate. In some areas, almost half of all diabetes diagnoses in children are now Type II. It is estimated that 1 in 6 overweight adolescents has pre-diabetes (a less severe form of Type II diabetes which often becomes Type II diabetes).

Type II diabetes is a lifelong illness that occurs when the pancreas cannot produce enough insulin or, the body ignores insulin. Insulin is a hormone that allows sugar (glucose) to enter cells where it is used for energy. Insulin also helps the body store extra glucose until energy is needed. People with Type II diabetes have higher than average blood-glucose levels. Overtime, uncontrolled diabetes can cause damage to your eyes, heart, kidneys, blood vessels, and nerves.

Symptoms

In children, the most frequent symptoms are increased urination, increased thirst, and weight loss. Other symptoms may include increased appetite, blurred vision, and fatigue. Often, children develop *acanthosis nigricans*, a dark, shiny discoloration in between the fingers and toes, on the back of the neck and/or in skin folds.

Risk Factors

Overweight children are at high risk for Type II diabetes. Overweight status is indicated when child's Body Mass Index (BMI) is above the 95 percentile. When a child is at risk of being overweight, their BMI is above the 85 percentile. BMI is the

relationship of their height to their weight. To calculate your child's BMI, visit <http://apps.nccd.cdc.gov/dnpabmi/Calculator.aspx>. Another risk factor for Type II diabetes is the child's ethnic background. Diabetes is more common in American Indian, African-American, Hispanic, and Asian children. Thirdly, if a parent or grandparent of the child has diabetes, they are at an increased risk for developing Type II diabetes. It is estimated that about 74-100% of children who develop Type II diabetes have a first or second degree relative with diabetes.

Testing and Treatment

The American Diabetic Association suggests that children over ten or who qualify for an overweight status *and* have two of the following: 1. family history, 2. belong to an at-risk racial/ethnic group, or 3. signs of insulin resistance (the symptoms listed above) should be tested every two years. The test itself consists of a simple blood or urine test. If your child is diagnosed with Type II diabetes, doctors will suggest a healthy diet low in fat and cholesterol and an active lifestyle. If these fail to help your child there are medications which can be prescribed. Metformin is the only oral medication that has been studied in children and approved by the U.S. Food and Drug Administration (FDA) for their use, while some doctors prescribe medications which are used in adults.

The best way to help prevent diabetes in your child is through a healthy diet and an increased activity level. Try having family walks and bike rides to encourage exercise in your child. Activities such as going to the zoo or the mall are not only enjoyable but increase activity. Try to limit TV and computer time. To encourage healthy eating, reduce fast food intake and involve your children in selecting their favorite healthy foods. Try serving healthy snacks such as dried fruit, pretzels, and air-popped popcorn. Try

limiting sugar intake by having water or juice on hand rather than soda. The most important thing in helping your child be healthy is being a role model yourself. If they see you having fun while keeping active and eating well, they will too!

For further information regarding this article see www.childrenwithdiabetes.com or please contact Kathleen A. Platzman, Ph.D. at the Maternal Substance Abuse and Child Development Project, Emory University School of Medicine, Department of Psychiatry and Behavioral Sciences, 1256 Briarcliff Road, N.E., Suite 324W, Atlanta, Georgia, 30306. You can also phone us at 404-712-9800 or visit our website at <http://www.emory.edu/MSACD>

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