

Type 1 Diabetes in Pediatrics



This department covers selected points from the 2007 Endocrine Update: A CME Day from the Division of Endocrinology and Metabolism at McMaster University and the University of Western Ontario.

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Pediatric diabetes can be a diagnostic challenge, especially within the range of 15 to 25 years. In lean children, Type 1 diabetes is the most common diagnosis, although Type 2 diabetes is now becoming more and more common in the pediatric population.

Living and growing with diabetes

Once the diagnosis of diabetes has been confirmed, proper nutritional, pharmacologic, or insulin therapy should be initiated. Comorbidities, such as thyroid or celiac disease, should also be identified and addressed. Diabetes education and child empowerment are also important in easing the child's transition towards a life with diabetes.

Screening for childhood diabetes

With the alarming rates of rising childhood obesity, insulin resistance and Type 2 diabetes are


becoming increasingly common among children. The Canadian Diabetes Association recommends screening obese children (BMI above the 85th percentile for age and sex) > 10-years-of-age, every two years, using a fasting plasma glucose test or an oral glucose tolerance test if they meet two of the following criteria:

- Are a member of a high-risk ethnic group
- Have a family history of Type 2 diabetes, especially if the child was exposed to diabetes *in utero*
- Have acanthosis nigricans
- Have polycystic ovary syndrome
- Have hypertension
- Have dyslipidemia

Management strategies

Effective management strategies for Type 2 diabetes in youth include:

- diabetes education,
- therapeutic lifestyle changes,
- psychosocial support and
- pharmacologic therapy with metformin.

It is also important to remember that insulin therapy is always necessary in Type 1 diabetes, as well as for Type 2 diabetes in the presence of glucose toxicity. 

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