

# Early Diagnosis of Overweight and Obesity by Prediction of Metabolic Syndrome Components in Children

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## Overview

As per the most recent appraisals from the International Obesity Task Force around 200 million young school-age children overall are overweight or obese. The most ridiculously startling entanglements of heftiness are addressed by the early event of metabolic disorder and type 2 diabetes (T2D). The connection between metabolic disorder and T2D is addressed by insulin opposition, which assumes a critical part in the advancement of the two illnesses [1].

A few investigations have attempted to distinguish clinical and biochemical markers ready to foresee the advancement of cardiovascular and metabolic intricacies in fat subjects with beginning stage stoutness. Longitudinal examinations have obviously shown that most of subjects who were corpulent during their youth will become hefty grown-ups and that corpulence and cardiovascular danger factors track from adolescence to adulthood. Foundation contemplates from the Bogalusa Heart Study, giving data on long haul metabolic changes from youth to early adulthood, obviously showed that antagonistic degrees of hazard factors of metabolic condition, when present in adolescence, speed up the event of T2D and cardiovascular issues [1].

## Causes

Metabolic disorder is firmly connected to overweight or obese and inactivity. It's likewise connected to a condition called insulin resistance. Typically, your stomach and intestine break down food and separates the food sources you eat into sugar. Insulin is a chemical made by your pancreas that assists sugar with entering your cells to be utilized as fuel [2].

In children or adults with insulin resistance, cells don't react ordinarily to insulin and glucose cannot enter the cells as without any problem. Therefore, your glucose levels rise even as your body produces increasingly more insulin to attempt to bring down your glucose [2].

Type 2 diabetes in children may develop so gradually that there are no noticeable symptoms. Sometimes, the disorder is diagnosed during a routine check-up.

## Symptoms

**Increased thirst and frequent urination:** Abundance sugar developing in the child's circulatory system pulls liquid from tissues. Thus the child may be thirsty - and drink and pee more than expected [3].

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**Fatigue:** Absence of sugar in the child's cells may make that person depleted.

**Blurry vision:** In case the child's glucose is too high, liquid might be pulled from the focal points of your kid's eyes. Your kid may not be able to concentrate obviously.

**Darkened spaces of skin:** Before type 2 diabetes creates, certain spaces of the skin start to obscure. These regions are regularly found around the neck or in the armpits.

**Weight Loss:** Without the energy that sugar supplies, muscle tissues and fat stores essentially contract. Nonetheless, weight reduction is more uncommon in kids with type 2 diabetes than in kids with type 1 diabetes.

## Diagnosis

If diabetes is suspected, your child's doctor will likely recommend a screening test. A diagnosis of type 2 diabetes in children generally requires abnormal results from two tests taken on different days. There are several blood tests for diabetes [4].

**Random blood sugar test:** A blood sample is taken at a random time. Regardless of when your child last ate, a random blood sugar level of 200 milligrams per deciliter (mg/dL), or 11.1 millimoles per liter (mmol/L), or higher suggests diabetes.

**Fasting blood sugar test:** A blood sample is taken after your child fasts for at least eight hours, or overnight. A fasting blood sugar level of 126 milligrams per deciliter (mg/dL) (7.0 millimoles per liter or mmol/L) or higher indicates type 2 diabetes.

**A1C test:** This test indicates your child's average blood sugar level for the past three months. An A1C level of 6.5% or higher on two separate tests indicates type 2 diabetes. It may also be called the hemoglobin A1C test or the glycated or glycosylated hemoglobin A1C test.

**Oral glucose tolerance test:** A blood sample is taken after your child fasts for at least eight hours or overnight. Then your child will drink a sugary solution. Over the next few hours, his or her blood sugar levels will be checked again several times. A blood sugar level of 200 mg/dL (11.1 mmol/L) or higher generally means your child has type 2 diabetes.

## References

1. Santoro N, Amato A, Grandone A, Brienza C, Savarese P, et al. (2013) Predicting Metabolic Syndrome in Obese Children and Adolescents: Look, Measure and Ask. *Obes Facts*. 6: 48-56.
2. <https://www.mayoclinic.org/diseases-conditions/metabolic-syndrome/symptoms-causes/syc-20351916>
3. <https://www.mayoclinic.org/diseases-conditions/type-2-diabetes-in-children/symptoms-causes/syc-20355318>
4. <https://www.mayoclinic.org/diseases-conditions/type-2-diabetes-in-children/diagnosis-treatment/drc-20355324>