

ASK THE EXPERT: Diet and Type 1 Diabetes



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Every year 14th November is celebrated as World Diabetes Day. The World Diabetes Day 2014 campaign focuses on healthy eating and diabetes. Having healthy eating habits is essential for every one of us including children with type 1 diabetes.

Understanding type 1 diabetes

Insulin is a hormone which helps carry sugar (glucose) from our blood to cells where it is used for energy and growth. When a person is diagnosed with type 1 diabetes, there is no or very little production of insulin. This means body's cells are not receiving enough glucose, and it is staying in blood. A child diagnosed with type 1 diabetes need to take daily insulin injections to keep blood glucose levels near normal for proper growth and healthy life.

Understanding Diabetes and its relationship to diet

The fact is that most foods provide carbohydrates which gives us energy not only sugar that is similar to the one that we buy from grocery shop. Basically there are two types of carbohydrates simple like glucose, sugar, and jaggery. These also include fruit and milk. Complex carbohydrates (starches) include grains such as wheat, corn, oats, rice and vegetables like potatoes. If there is enough insulin present in the body naturally or provided by injections, it will utilize the carbohydrates and consequently the blood sugar will not rise. However, if body is producing less or no insulin, then blood sugar is bound to rise even if one eats healthy foods.

Following a "diabetes diet" means choosing food that will work along with activities and any medications to keep blood sugar levels near normal. In fact diabetes underlines the need for a healthy and balanced way of eating which is good for everyone in the family.

Is diet of a child with type 1 diabetes different from other children?

The only difference is that the children with diabetes need to balance the quality, quantity and timing of their meals with the amount of insulin they take and with their activity level or vice versa. If the insulin doses are fixed, the meals must also be fixed in time and quantity. Basal - bolus regimen (Multiple doses) with insulin dose adjustment allows flexibility for the child in meal quantity and the timing to some extent. Skipping meals and overeating both are harmful.

Planning a right meal for children with type 1 diabetes

Key points which can help you to plan a right diet for your child with type 1 diabetes are:

- A child can eat everything which is usually made in a normal house hold. Certain changes can make it healthy E.g. Avoiding foods that are high in sugar and oil, using whole grain products instead of refined like whole wheat flour instead of Maida, Brown rice instead of white rice. Having plenty of vegetables and fruits at least 5 a day. Truly speaking these practices are good for everyone.
- Almost all fruits and vegetables are good for people with type 1 diabetes if consumed in appropriate amounts as they are rich in fibre and other essential vitamins and minerals. Eating whole fruit is more beneficial as it has more fibre and juices need to be avoided.
- Eating a consistent amount of carbohydrate at each meal and snack will help to keep blood glucose levels more stable. Any carbohydrate e.g. Roti, rice or fruit can be exchanged with small amounts of sugar as part of a healthy eating pattern. Since most foods that are very high in sugar are empty calories with very less nutrients, it is better to limit them as an occasional treat.

• Most people think they can eat endless amounts of "sugar free" diabetic products foods because they don't contain sugar. They will still affect the blood glucose as they contain other carbohydrates. Having in moderation is best.

- Many people may suggest special foods for children with diabetes. This is a group of vegetables which is good for everyone as they are very low in calories and very rich in nutrients along with soluble fibre. These include non-starchy vegetables and fruits. In this group, foods like Bitter gourd (karela), Fenugreek (methi), Indian blackberry (jamun), Garlic, Flax seed, Cinnamon are miscommunicated as a treatment of diabetes. While, these are good for people with diabetes but they cannot be a substitute for insulin.

Education essential to have flexibility and good blood glucose control

It is essential to have diet review done by the doctor or dietician at least once in a year. Food portions, exchange lists and carbohydrate counting are all part of systems designed to learn how every variety of food can be included in the diet and maintain good blood glucose levels.

Ultimate goal for treatment

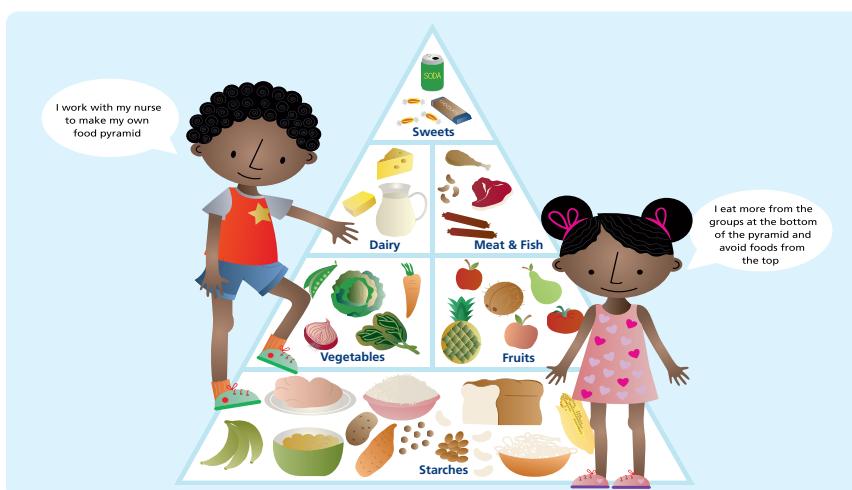
Ultimate goal for treatment is to maintain blood glucose levels near normal. Just as there is no single medication that works for all people with diabetes there is no single meal planning approach. So, a person with diabetes needs to be more creative in diet and has to understand the concept of diet.

Current Indian Scenario

Adequate management of type 1 diabetes requires intensive insulin treatment, monitoring and life style changes. Economic deprivation in a large segment of population has definitely an impact on nutrition and dietary consultations, which are utmost essential. This leads to uncontrolled blood sugar levels and increase in complications and reduced life expectancy.

Changing Diabetes in Children (CDiC) program

Novo Nordisk Education Foundation along with 21 specialized centres across India has tried to address the critical gap in the management of type 1 diabetes through its CDiC program for economically underprivileged children with type 1 diabetes. The 4000 children registered in the program are provided with free doctor consultations, human insulin, glucometer, strips, HbA_{1c} test, other essential diagnostic tests and diabetes education on regular basis. CDiC aims to support normal and healthy childhood in these children with type 1 diabetes, so that they grow into healthy adults.



If you would like to have more information on type 1 diabetes you can write to us at:

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