Let's Talk ABOUT...

A ketogenic diet is a very strict diet that is high in fat, but with a normal number of calories. Sometimes, seizures in children can be controlled if the child stays on this strict diet.

How does a ketogenic diet control seizures?

The ketogenic diet makes your child use fat instead of carbohydrates for energy. Usually, a person eats lots of carbohydrates and our bodies change the carbohydrates into glucose, a type of sugar. The glucose feeds the body's cells. There are very few carbohydrates in the ketogenic diet and a lot of fat. The body uses fat for energy instead of carbohydrates. The fat changes into ketones, and the ketones feed the body's cells. The high amount of ketones in the body can help stop seizures in children.

Who can try the ketogenic diet?

Usually, the ketogenic diet is tried after several medicines have been tried, and a child still has seizures. The ketogenic diet is usually recommended for children three- to eight-years-old. Sometimes, infants twelve-months- to three-years-old are treated with the ketogenic diet. If a ketogenic diet is used for a child less than three-years-old, the child has to be watched carefully to make sure he grows properly. Older children may try the diet, but the child's family has to be very motivated and willing to resist food temptations outside the home. Families have to promise to use the ketogenic diet for at least two months.

What happens if I decide to try the ketogenic diet with my child?

Your child will have a clinic appointment to discuss the diet and to make sure that all his laboratory tests are normal. A dietitian will also provide you with sample menus to see if your child will accept

Ketogenic diet

this diet.

Your child will be admitted to the hospital for about two to five days so he can be watched while the diet is started. While your child is in the hospital, your family will receive intense training about the diet from a dietician. A team of a doctor, a dietician and a nurse rigidly supervises the ketogenic diet.

What is the diet like?

The ketogenic diet is high in fat, normal in protein, and low in carbohydrates. All three of these must be in your child's diet for it to control seizures. The amount of calories your child will be able to eat each day is based on his weight, height, and age. He can have a normal, but controlled, amount of liquid. The amount of protein he will eat will be based on what is right for his age. Calories are provided in a ratio of 3:1 or 4:1. For every three or four calories of fat, there is one gram of protein/carbohydrate. He will also receive very few carbohydrate calories. All of the carbohydrates he eats have to be part of the diet. He cannot have any other carbohydrates. This even includes carbohydrates in medicines. Your child must also take a multivitamin and other supplements each day.

If you feed your child through a tube, he can have a ketogenic diet using a special formula called Ketocal[®]. This formula contains all the vitamins and supplements that your child needs.

What happens in the hospital?

Your child will be admitted to the hospital to start the diet. In the hospital, his blood glucose will be checked every four hours to make sure it does not get too low. His urine will be checked for ketones. The ketone level helps the dietician properly adjust your child's diet.

The ketogenic diet starts with three meals of eggnog shakes. These are completed the first day in the

hospital. On the second day, your child will receive one eggnog shake and three meals of food, measured carefully for the diet. Your child will receive fluids, water, and diet soda every three hours. Your child's dietitian will tell you how much he can drink.

If you feed your child through a tube, he will receive Ketocal® formula of a different strength each day. Your child's dietitian will help your family carry out the feeding schedule used at home.

What education will my family receive?

Your family will be taught how to measure foods, develop menus, and read labels to identify proper foods for the ketogenic diet. In addition, you will be taught how to test urine with ketone strips, and watch for signs of low blood sugar or high ketones in the urine.

What should I watch for in my child?

Watch your child for these symptoms of low blood sugar:

- · Your child has more seizures than usual
- Your child is more sleepy
- Your child's skin is sweaty skin and feels clammy

If your child has symptoms of low blood sugar, give him one ounce of apple juice and watch him closely. If the symptoms continue, call your child's doctor, neurologist, or the neurology nurse practitioner. Watch to see if your child is nauseated or vomits around mealtime or when a feeding is scheduled. If this happens, check his urine for ketones. If the ketone strip turns very dark, give him one or two ounces of apple juice immediately. If the symptoms continue, call your child's doctor, neurologist, or the neurology nurse practitioner.

When will my child have blood tests?

Your child will have blood tests two months after the ketogenic diet starts and then every four to six months. The results of the blood test will determine the exact diet for your child and the amount of vitamins and minerals he needs.

What doctor and clinic visits are required?

Your child will have a clinic visit one month after he is discharged from the hospital and two months after he starts the diet. After that, he'll have a clinic visit every four to six months. At the two-month visit, he will have some blood tests, see the nurse practitioner, and see the dietician. Your child's neurologist is available for consultation at these visits. You will have telephone follow-up, too, with the dietitian and the nurse practitioner.



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