



## The Ketogenic Diet

[www.epilepsy.org.za](http://www.epilepsy.org.za)

### Epilepsy and the Ketogenic Diet

Up to 70% of people with epilepsy will be able to control their seizures with anti-epileptic drugs. The Ketogenic Diet (together with anti-epileptic medication) may help some children and adults with drug-resistant epilepsy to reduce the number or severity of their seizures or even stop these seizures completely.

### What is the Ketogenic Diet?

The Ketogenic Diet is a high fat, adequate protein diet in use since the 1920s to treat epilepsy. The word “ketogenic” refers to chemicals called ketones made in the body. Thus “keto” refers to these ketones and “genic” to producing/manufacturing.

### How does the Ketogenic Diet work?

Your body typically uses glucose from carbohydrates as its energy source. Glucose is a type of sugar while carbohydrates are found in foods like sugar, fruits and vegetables. The Ketogenic Diet changes your body’s energy source from using ketones that come from fats rather than glucose originating from carbohydrates. The adequate production of ketones is called “ketosis”. It is very important to carefully measure the level of ketones your body is producing to determine if it is getting energy from the fats you are eating.

### Is the Ketogenic Diet suitable for everybody?

The Ketogenic Diet is easier to implement with children, although similar diets are available for adolescents and adults. The efficacy of the diet differs from child to child and it is not possible to predict to what extent the Diet will help. The Diet is usually considered as a treatment option when three or more medications have been ineffective in controlling seizures.

The Diet must be followed with the support of an experienced neurologist and dietitian (nutrition specialist). It can be adapted to all ethnic diets and is suitable for children who are allergic to dairy and other products.

### Is the Ketogenic Diet suitable for all ages?

Although the Diet is suitable for children between the ages of one and 10 years old, it has been very successful in babies younger than 12 months. However, in these cases monitoring is very important. An adapted version of the Diet is used with adolescents and adults.

### Does the Ketogenic Diet work?

The Diet has been shown to reduce the number of seizures between 50 and 100% in some children/adults with intractable epilepsy (i.e. difficult to control seizures). However, some people may have other benefits such as improved day-to-day wellbeing. Some children benefit from the Ketogenic Diet within a week while others show a slower response. Usually the Diet is tested for three months to determine how well it works.

### Making the decision

Most experts say the Diet is worth trying when three or more medications have failed to control seizures or when medications cause side effects harmful to a child’s life. The Diet seems to work for more than one type of seizure and for children/adults with higher and lower seizure frequency. Doctors say it shouldn’t be used instead of medication if drugs are working and the child is not having bad side effects. However, parents have the right to decide if they want to try the Diet since it is more natural, have less side effects and has a very high chance of reducing seizures.

Parents must be educated and need to know everything about the Diet since it might seem like a barrier regarding their social life (e.g. eating out and taking holidays). Even though the Diet has side effects all of these are treatable. As with any kind of treatment you will need to consider many factors before deciding to try the Diet.

The best way to make this decision is to discuss all the possibilities and factors with your doctor and obtaining as much information as you can. It may also be helpful to talk with other parents whose children have been on the Diet.

## Frequently asked Questions

### Will I/my child gain weight from eating so much fat?

The amount of food is carefully calculated and weighed so that you/your child will eat only the required calories for good health. The fat content of the food doesn't affect weight since it forms part of the total calories calculated.

### How long should I sit with my child before I give up trying to get him to finish all his food?

Some parents report that mealtimes can wrap up in twenty minutes while others say they have to sit with their children for two hours before all the food is finished.

A child must finish all the food because the meal is put together in amounts that will give him the right balance between fat, protein and carbohydrates. If some food is not eaten, the balance is lost and breakthrough seizures will occur.

Since this is important parents often try tricks like playing a video during meals or playing games to distract the child while they're encouraging him to eat. Parents who've been successful advise others to use the diet creatively and try offering something new and special for each meal to keep the child interested. Older children may be more cooperative as they know the diet is helping to control their seizures.

### Will taking prescription or other medicines affect the Diet?

All medicines and pharmaceuticals such as toothpaste, cough syrup, vitamins and prescription medicine must, whenever possible, be free of sugar and other

carbohydrates. Remind your doctor to prescribe all medication in sugar-free and carbohydrate-free forms. Read labels carefully and check with your pharmacist.

### Does the Diet cause a problem with high cholesterol?

When children are switched from a high fat diet both cholesterol and triglyceride levels can go up. However, the Ketogenic Diet is not a lifetime diet as children stay on it for about two years. When weaned off the Diet cholesterol levels return to normal.

### Important: Don't try it alone

The Ketogenic Diet has special appeal to families since a "diet" seems a more "natural" way of preventing seizures than taking pills. However, the Diet is anything but natural.

It is a highly unusual choice of foods and reverses the body's natural way of using glucose as a source of energy. In fact, the Ketogenic Diet, like taking medications or having surgery, is considered medical treatment.

It is not a "do-it-yourself" diet as every step of the process must be managed by an experienced medical practitioner and dietitian.

