

The Ketogenic Diet

The ketogenic diet is a special diet used to treat children who have epilepsy which does not respond to anti-epileptic drugs (intractable epilepsy). Repeated studies have shown that the ketogenic diet can reduce seizures in up to 60% in children whose epilepsy is drug resistant. For these children, a third can have a 50% reduction in seizures, and a third can have a 90% reduction in seizures or become completely seizure free. However, for the remainder the diet will have no positive effect.

How does it work?

Our bodies need carbohydrates for energy, and because the diet is very low in carbohydrates, the body has to turn to fat. When fats are broken down in the body to release energy, ketones are produced. For some reason this state of 'ketosis' can have a positive effect on seizure control. It is still not fully understood why this is, but it can be very effective for some children. Finger prick blood tests or urine tests are usually done to monitor the amount of ketones in the body.

What is the diet like?

The diet is very carefully controlled and all the ingredients must be weighed. It is very high in fat, has adequate protein for growth and is very low in carbohydrates. It can only be prescribed by a qualified dietitian trained in working with the ketogenic diet. Throughout this process your child will also need to be regularly monitored by medical staff for adverse health effects.

Parents and medical professionals often consider this diet as a last resort because it can be quite a daunting prospect at first. The way ketogenic diets are, however, prescribed has improved over the last decade, and they are becoming easier for families to manage.

Parents are often keen to try this treatment because if the diet proves successful, it means that drugs can sometimes be reduced or even weaned off completely.

This diet should never be done without medical support and guidance. The charity Matthews Friends (details below) can help you find your nearest ketogenic diet clinic in Scotland. Your child will usually need a referral by their neurologist or paediatrician to one of these clinics.

How long does the treatment last?

The diet is not for life. Usually the children are only on the diet for a maximum of two years and can then be weaned off it. The positive effects from the diet will remain for the vast majority of children. The diet can be given for longer if necessary.

Is this diet suitable for adults?

The ketogenic diet is usually not recommended for adults given its restrictive nature, however, studies have shown that the diet can be effective for adults. 'Adult versions' of the ketogenic diet include the modified Atkins Diet or Low Glycemic Index Treatment, which work on similar principles but are less restrictive. For more information on these 'adult' diets, please check out our separate factsheet 'Dietary based treatments for adults'.

Further information about the ketogenic diet

If you are curious and want to find out more about this diet, the charity [Matthews Friends – Ketogenic Dietary Therapies](#) are a good source of information including support, recipe ideas and updates on new developments. They can usually tell you about resources in your area and how to access them. Contact them on 01342 836571, or have a look at their website, www.matthewsfriends.org, which is full of detailed information on all the diets available for both children and adults.