Better futures for young lives with epilepsy

Helpline: 01342 831342
Email:helpline@youngepilepsy.org.uk

Dietary treatments for epilepsy

For those children whose seizures are not controlled on anti epileptic medication, dietary treatments may prove effective.

The ketogenic diet

First developed in the 1920s, the ketogenic diet is a high-fat, low-carbohydrate and controlled-protein diet, which is used in the management of epilepsy in children.

It may be considered for children who have not responded to antiepileptic drugs. This diet is not effective for everyone, but for some it may result in an improvement in seizure control, with fewer side-effects than other treatments. Other commonly reported benefits are improvements in alertness and awareness.

The diet needs to be considered as another antiepileptic drug – it is not a 'natural' treatment. No changes are made to current drug therapy while the diet is introduced, however if it is effective, the drugs can then be slowly withdrawn.

The diet can be used for all seizure types and all ages. Although it may be more successful in children and younger teenagers, it is difficult to predict who will benefit from the diet.

The diet alters the body's metabolism by replacing glucose with fats as the major energy source. Fat is broken down to ketone bodies which are natural substances found in the blood and urine. Although the exact way the diet works is not known, the initiation and maintenance of this state of ketosis is important for optimal seizure control.

There are two different types of ketogenic diet, the Classical diet and the Medium Chain Triglyceride (MCT) diet. The choice of diet used will depend on the age of the child and their normal food intake. Research has shown that each diet is equally effective. The ketogenic diet requires the close supervision of a consultant and a trained dietitian, as well as motivation and commitment from the child and the family.

The diet is individually calculated for each child and parents are taught how to deliver it. Regular contact with the dietitian and consultant is needed for fine tuning of the diet and monitoring of the child's growth and general health. Supplementary vitamin and mineral supplements are usually prescribed.

Young Epilepsy is the operating name of The National Centre for Young People with Epilepsy.
Registered Charity No: 311877 (England and Wales).
© Young Epilepsy 2012.
Publication No. NS123

Common side-effects include constipation, vomiting and loss of energy. These occur more often when starting the diet and can usually be alleviated by adjustment of the diet.

Modified ketogenic diets

As well as the traditional ketogenic diets, two alternative diets are being used successfully in some children and adults with epilepsy. The modified Atkins diet and the low glycaemic index treatment work in a similar way but are less restrictive types of ketogenic diet therapy. They are especially useful for children who find compliance with a stricter diet difficult and for older children and adults.

.

As with all ketogenic diets, these modified diets should only be used under the supervision of a consultant and specialist dietitian.

The modified Atkins diet

In this diet the intake of carbohydrate is very low, but there are no fluid, calorie or protein restrictions and intake of fats is encouraged

The low Glycaemic Index (GI) treatment

The total daily intake of carbohydrates is more generous on the low GI treatment but only those with a low glycaemic index are allowed. The glycaemic index refers to how high the blood glucose level is raised after eating a particular food compared to a reference food such as sugar.

Sadly, not all children are able to get access to dietary therapies due to funding issues or the scarcity of dietitians.

More information on latest research and implementation of all types of dietary treatment for epilepsy can be found at www.matthewsfriends.org. Links to other published resources which provide more information can also be found at this website.

Young Epilepsy is the operating name of The National Centre for Young People with Epilepsy.
Registered Charity No: 311877 (England and Wales).
© Young Epilepsy 2012.
Publication No. NS123

Young Epilepsy is the operating name of The National Centre for Young People with Epilepsy.
Registered Charity No: 311877 (England and Wales).
© Young Epilepsy 2012.

Publication No. NS123

Young Epilepsy is the operating name of The National Centre for Young People with Epilepsy.
Registered Charity No: 311877 (England and Wales).
© Young Epilepsy 2012.

Publication No. NS123