

Herman Brot bread – Ketogenic Diet

The Ketogenic diet (KD) is a high fat, low protein and low carbohydrate diet used in the treatment of epilepsy (1). The KD is usually prescribed by their doctor or dietitian for children with severe forms of epilepsy that have not responded well to various drug treatments (1).

The KD contains a high content of fat in the form of added fat such as butter, cream, oil, and margarine and restricted amounts of protein, though sufficient to allow for normal growth and development (1).

The KD provides only very small amounts of carbohydrate. When a body does not have sufficient carbohydrate to maintain the glucose supply to the brain, as in starvation, the body will break down fat stores to produce ketones (1). The brain uses the ketones as a source of energy (1). It is this change in the fuel supply for the brain that results in the diet being effective in stopping seizures or in some case fewer seizures of reduced intensity (1). While on the diet children's urine is assessed to check their levels of ketones. A blood test can also be undertaken to assess the levels of beta-hydroxy butyrate (ketone) to assess seizure control (1).

The prescription of the KD is usually a ratio of 4:1 which means 4 grams of fat for every 1 gram of protein and carbohydrate combined (1). Of the carbohydrate foods in the diet, those with a low glycaemic index (<50) are favoured as they produce a relatively small rise in blood glucose levels (2). The actual amounts of each food group, is prescribed by the dietitian and is in accordance with the protein and energy requirements for each child. The diet is low in fruit and vegetables and wholegrain cereals, hence children need to take multivitamin and mineral, calcium and, at times, vitamin D supplements (1,2).

The KD has possible associated side effects which include constipation, raised cholesterol levels, renal stones, poor growth, reduction in bone density, altered immune function and liver function (1,2).

Herman Brot bread has the unique characteristics of low carbohydrate and low glycemic index, which make it suitable for the inclusion into a Ketogenic diet. Herman Brot bread, contains only 2.3g CHO and 11.7g protein per slice. Herman Brot bread is nutrient dense and provides a great source of vitamin B1, vitamin B3, folate, vitamin B12, vitamin E, magnesium, manganese, iodine, zinc and calcium. It also contains 4.5g of dietary fibre per slice which can assist in the maintenance of bowel regularity (1,2). Herman Brot bread is rich in soy protein and may assist in supporting healthy cholesterol levels.

Herman Brot bread provides individuals with an opportunity to have a nourishing bread as part of their diet while fulfilling their low carbohydrate dietary prescription.