



MODIFIED KETOGENIC DIET

For the dietary management of severe epilepsy or other physician-prescribed situation that suits the modified ketogenic diet.

MODIFIED KE

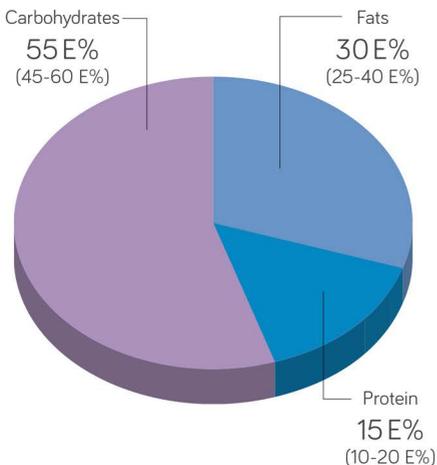
The reduction of carbohydrates in the diet of a person suffering from severe epilepsy can reduce the number of epileptic seizures. When implementing a modified ketogenic diet (MKD), foods containing carbohydrates are eaten in limited quantities, whilst foods containing protein and fat as well as fluids can be consumed more freely.

In this diet, the amount of carbohydrates is reduced approximately 10–20 grammes per day. Simultaneously, the amount of fats is increased in the diet. The body starts to use fats as a source of energy, which produces ketones. Carbohydrate quantities are reduced in the diet precisely, and they are distributed evenly throughout the daily meal schedule. The entire proportion of carbohydrates should not be eaten in one meal.

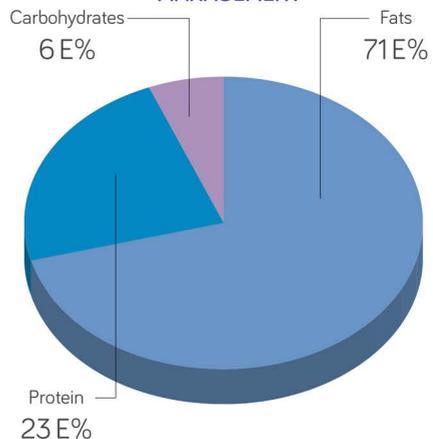
The diet is initiated on the order of the attending physician. Its efficacy is assessed within the agreed implementation period (approx. 2–3 months). Highly effective dietary management can be continued for several years.

The diet is implemented with and mostly made up of regular foodstuffs. The diet can be implemented and supplemented with clinical food preparations intended for the diet that are rich in fats. The nutritionist and nurse supervise the implementation of the diet at home. After getting guidance and instruction, the patient or family can put together meals and compile recipes independently.

BASIC DIET



MODIFIED KETOGENIC DIETARY MANAGEMENT



A basic diet contains 200–500 g of carbohydrates per day, depending on age and the energy requirement. In a modified ketogenic diet, the amount of carbohydrates is restricted to start with to 10 grammes per day.

TOGENIC DIET

ENERGY NUTRIENTS

CARBOHYDRATES

Carbohydrates are sugars and starches. The main sources of carbohydrates are bread, potatoes, rice, pasta, liquid dairy products, vegetables, fruits, berries, pastries (cakes, buns, etc.), sweets and soft drinks. In the modified ketogenic diet (MKD), the quantity of these foodstuffs is reduced significantly in the diet.

FATS

Over two times as much energy per gramme is derived from fats than from protein and carbohydrates. Fats are found in foodstuffs of both animal and plant origin; for instance, vegetable oils, margarines, butter, meat, cold cuts, cheeses, fatty-acid fish and nuts. As a source of fats, vegetable oils and fatty-acid fish are recommended.

PROTEIN

The most important sources of protein are meat, chicken, fish, eggs, milk products, legumes and nuts.

FREELY CONSUMABLE FOODSTUFFS

Meat, fish, chicken, eggs and ripened cheeses can be consumed 'as is'.

Fats: vegetable oils 'as is' (canola, rapeseed and olive oil) and margarine

Beverages: water, unsweetened mineral water, carbohydrate-free light juices and sodas, tea and coffee

Spices: salt, pepper, dry herbs and certain sweeteners. Note that there can be added sugar in spice mixes.



Remember to read the ingredient labels on food products carefully!

CALCULATION OF CARBOHYDRATES

SAUSAGE

Nutritional content per 100 g

Energy 1050 kJ / 260 kcal

Protein 9 g

Carbohydrates 4 g

Fats 23 g

Calculation of carbohydrates:

If you wish to eat 2 g of carbohydrates from a sausage

$$2\text{g}/4\text{g} = 0,5$$

$$0,5 \times 100\text{ g} = 50\text{ g sausage}$$

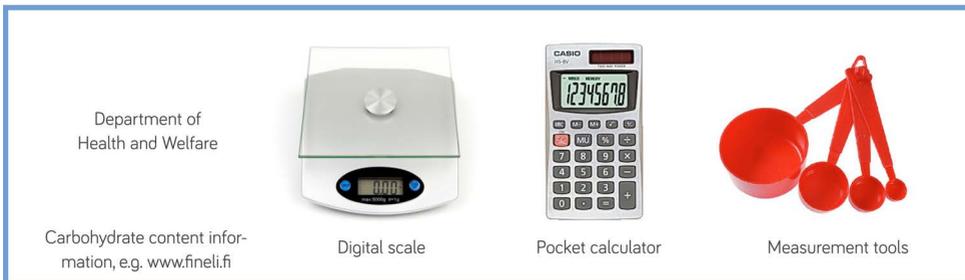


VITAMINS AND DIETARY MINERALS

During the period of dietary management, vitamin and dietary mineral preparations are

recommended for consumption. The amounts are calculated individually in accordance with the guidelines of the physician and the nutritionist.

FOR THE IMPLEMENTATION OF DIETARY MANAGEMENT, YOU NEED



DIET IMPLEMENTATION MONITORING

During the period of dietary management, it is important to be regularly in touch with the care providers: the nutritionist, physician and nurse

FOOD JOURNAL

The food journal is filled in three to four days before initiating dietary management, so that the ketogenic diet would conform maximally to the regular type of diet implemented by such management. The nutritionist may also request you to maintain a food journal during treatment. By means of a food journal, it is possible to check that the treatment goes on smoothly as agreed and that, by its aid, the diet can be fine-tuned if necessary.

WEIGHT

Weight is monitored at home once a week during the entire dietary management period.

MEASUREMENT OF KETONES AND BLOOD SUGAR

The strength of ketosis is measured with a fingertip blood sample using a ketone metre or from the urine using Ketostix urinary test strips. The measurements indicate how many ketones the body produces and how well the diet is implemented. Ketosis is suitable when the patient feels well, s/he is alert, and epileptic seizures occur rarely or not at all. During the period of dietary management, blood sugar is also monitored by means of a fingertip blood sample.

It is advisable to be regularly in touch with the nutritionist, nurse and attending physician during the period of dietary management.

Useful links:
www.epilepsia.fi
www.matthewsfriends.org
www.charlifoundation.org

Adapted in co-operation with licensed nutritionists Krista Heikkala (Helsinki University Hospital), Reetta Mustonen (Kuopio University Hospital) and Jaana Heikkilä (Turku University Hospital) as well as Nutricia Medical from Sveriges Ketoteam tillsammans med Nutricia 2018.

Nutricia's preparations are clinical nutrient products and they should be consumed under the guidance of a health professional.