# **Ketogenic Diets**

Approximately 30% of people with epilepsy do not have controlled seizures and become resistant to antiepileptic medications. When the medications and/or surgeries don't work as expected, the ketogenic diet has become a useful treatment option.

The ketogenic diet is a therapy that doesn't include drugs and is defined as an eating plan that focuses on foods that provide a lot of good fats, adequate amounts of protein and is low in carbohydrates.

Clinical studies and clinical practice have shown that this treatment option can be effective for people with epilepsy experiencing uncontrolled seizures and for those who cannot tolerate the side effects of the antiseizure medications.

#### There are four different ketogenic diets:

Classic Ketogenic Diet (CKD): High in fat, low in carbohydrates and low in protein.

**Medium Chain Triglyceride Ketogenic Diet (MCTKD):** Less fat is required but still higher than carbohydrates and protein. The proportion of carbohydrates is higher than the CKD.

**Modified Atkins Diet (MAD):** Less fat is required but still higher than carbohydrates and protein. The proportion of protein is higher than the CKD.

Low Glycemic Index Diet (LGIT): It's a low carbohydrate diet and only specific carbs are used.

All ketogenic diets have achieved high efficacy and have shown that despite the different amounts of fat, carbohydrates and protein, these types of ketogenic diets have very similar results.

A ketogenic diet must be planned by a dietitian and the epileptologist, and it is required to be under their supervision to avoid side effects and complications. The decision on what type of diet the person with epilepsy is going to receive is made on an individual basis considering the patient's age, other medical conditions, family circumstances, and severity and type of epilepsy.

Laboratory tests are necessary before the initiation of the diet and during the diet to prevent nutrition deficiencies and complications. The diet may be initiated at home, but for children and those with higher risk of intolerance or changes in blood sugar, the diet must be initiated at the hospital.

Side effects can occur with ketogenic diets including nausea, vomiting, low blood sugar and lack of energy. Doctors and dietitians also suggest limiting the intake of fluids because too many fluids may induce seizures. Chronic complications include difficulty in emptying the bowels, weight loss, kidney stones, slow growth and vitamin and mineral deficiencies.

Your commitment and discipline, the support of the family and friends and the continued education to the community are as important as the medical supervision to have positive results with the ketogenic diet.

# **Frequently Asked Questions About Ketogenic Diets**

#### Q. Am I a candidate for a ketogenic diet?

A. If you have been diagnosed with uncontrolled epilepsy, you may be a candidate for this treatment option.

### Q. Is this a new type of treatment for epilepsy?

R. Ketogenic diets were developed in the early 1900s and have been increasingly used worldwide for epilepsy and other medical conditions. In the past few years, ketogenic diet variants have been recognized to make the treatment easier and more tolerable reducing side effects and making it available to a larger group of people with drug-resistant epilepsy.

#### Q. Can a ketogenic diet be the first treatment option for epilepsy?

A. No. A ketogenic diet becomes useful when the antiseizure medications don't work or when you are not a candidate for surgery.

#### Q. What age range is this diet good for?

A. The ketogenic diet has been used in children and adults worldwide. Although, children and those with higher risk of intolerance or changes in blood sugar require strict supervision by the clinicians.

#### Q. Where can I find keto-friendly recipes?

R. To start a ketogenic diet, you must be evaluated by a dietitian and the epileptologist. They will provide your treatment plan and they may tell you where to find resources and recipes for your type of epilepsy.

## Q. Can I do intermittent fasting with ketogenic diet?

R. Always ask your doctor about changes in your lifestyle including diet regimen, exercise and meal plans.

#### Q. How long does it take a ketogenic diet to control my seizures?

A. You must be under the supervision of a dietitian and the epileptologist to evaluate the effect of this treatment option. They will determine which type of diet is the most appropriate for you, how and when to start it and how to stop it, if it is necessary. The duration of the therapy may vary and must be evaluated individually.

#### Q. When and how I can stop a ketogenic diet?

A. As mentioned previously, you must be under the supervision of a dietitian and the epileptologist. They will decide when and how to stop it. Making changes and stopping the diet without their consent, may cause serious adverse reactions.

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