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Ketogenic Diet

The Ketogenic Diet, dating back to the 1920s, was created to help control epileptic seizures in individuals who do not respond to medication. The diet is based on the process of ketosis, in which the body uses ketones for fuel instead of glucose. Ketones are a byproduct of fat metabolism that are utilized in times of starvation, carbohydrate restriction, or excessive exercise. For the body to reach a state of ketosis, calorie intake must be limited and comprised of 80% fat. The remaining calories should come from low-carb vegetables and protein.

Once ketosis begins (usually within a few days of implementing the diet) insulin levels drop, causing the pancreas to start producing glucagon. Glucagon determines the rate at which ketones are produced and sends the body into fat-burning mode, which is why the diet has gained recognition as a means for weight loss.

The diet is customized to individual needs and is usually maintained for extended periods of time. It's advised that the first day and night be a period of fasting, and that the diet be gradually introduced over a couple of days so that the body has time to adjust. Each meal is carefully measured, including fluids, and a daily multi-vitamin and mineral supplement are imperative.

Potential side effects include dehydration, constipation, vomiting, high cholesterol, kidney stones, behavior changes, slower growth rates in children, pancreatitis, excess fat in the blood, and vitamin and mineral deficiencies. As a result, individuals on this diet should be closely monitored by an experienced team of practitioners.

The Ketogenic Diet is primarily recommended for children with epilepsy as there have been numerous studies showing a reduction in seizure rates. It's shown to be more successful for children than adults because parents are able to carefully supervise food intake. This approach does not work unless it is followed exactly.

Foods to include:

- Low-carb vegetables
- Low-carb fruits
- Meat
- Poultry
- Fish
- Eggs
- Dairy
- Nuts and seeds
- Healthy oils

Foods to avoid:

- High-carb vegetables
- High-carb fruits
- Grains
- Beans
- Sugar
- Trans fats
- Processed food

Pros:

- May prevent or lessen the frequency of seizures
- May alleviate epilepsy
- Restricts sugar intake
- Quick weight loss in some cases

Cons:

- Not safe for people who do not exercise because ketones need to be released as energy
- May cause extreme fatigue during first two weeks
- Bad breath and metallic taste is likely to occur
- Difficult to maintain for extended periods of time
- Nutrient deficiencies common

Sources:

Ketogenic Diet for Epilepsy www.webmd.com [_ \(http://www.webmd.com\)](http://www.webmd.com)

The Johns Hopkins Ketogenic Diet Fact Sheet www.home.iprimus.com [_ \(http://www.home.iprimus.com\)](http://www.home.iprimus.com)

Ketogenic Diets www.diet.com [_ \(http://www.diet.com\)](http://www.diet.com)