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What's the deal with the Keto Diet?

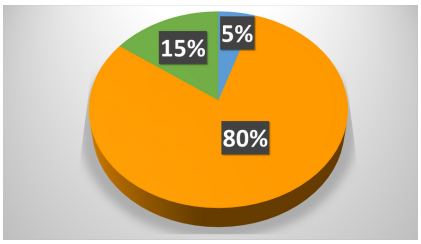
A ketogenic diet, often promoted for weight loss, is a low carbohydrate/high fat diet originally developed to reduce seizures in children with epilepsy.

Diet comparison:

The term "ketogenic diet" refers to ketone bodies which are produced when the body is deprived of and no longer uses carbohydrate as its main energy source. Instead the body uses primarily fat for energy (most of which comes from the high fat diet itself as opposed to burning body fat stores).

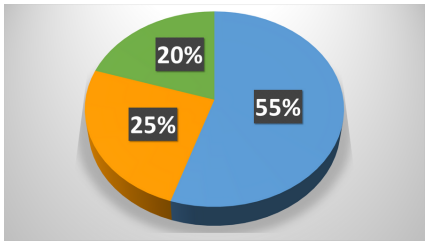
The standard keto diet provides:
Less than 10% energy from carbohydrate
15-20% energy from protein
75-80% energy from fat

Ketogenic Diet



The Institute of Medicine (IOM) recommends:
45-65% energy from carbohydrate
10-35% energy from protein
20-35% energy from fat

Institute of Medicine



The bottom line:

Considerable weight loss may be seen in the first 3-6 months of a ketogenic diet. Studies show long-term weight loss over 12-24 months is very small (less than 1 kg).

More studies are needed to assess the short and long-term effects of a ketogenic diet, especially the effects on the health and performance in military populations.

A ketogenic diet may have a negative impact on performance especially with high intensity activity.

Looking for more information on diets?
Contact your local Health Promotion Office to request a 'Myths and Facts on Diets' briefing.

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What does the research say?

Weight loss - A ketogenic diet has become popular as a quick way to lose weight but there are few studies that have evaluated its long term safety and effectiveness. Most of the short term weight loss is due to water loss from decreased glycogen (carbohydrates) stores and not from the effect of increased metabolism and fat loss.

Appetite - Increased ketone bodies as a result of a ketogenic diet decrease the feeling of hunger and lead to a loss of appetite which contributes to the short-term weight loss.

Chronic disease - As per other weight loss diets, the improved metabolic profile for type 2 diabetes and cardiovascular disease is a direct result of the weight loss rather than from the ketogenic diet itself.

Performance - A ketogenic diet does allow the body to burn fat more efficiently during low or moderate intensity exercise. On the other hand, carbohydrates are important because they provide a key fuel for the brain and central nervous system and can support different intensity levels of exercise. At the highest level of exercise, carbohydrates offer advantages over fats as an energy source, since they provide more energy to the body and can increase your exercise capacity.

Side effects - Due to the restrictive, high fat/low fibre make-up of the ketogenic diet, it may result in side effects such as:

1. constipation, skin rash and muscle cramps due to nutritional deficiencies
2. diarrhea and impaired lipid levels due to high fat intake
3. general weakness and headache from the associated metabolic acidosis.

Already following a keto diet? Keep these tips in mind:

1. Eating less processed and lower sugar foods is a good thing for everyone. Balance your meals by filling your grocery bag with whole foods and lots of vegetables and fruit for tasty, healthy meals.
2. See your physician, nurse or registered dietitian if you have any concerns about your weight.
3. Stay hydrated.
4. A ketogenic diet may decrease your performance during high intensity activity.

Looking for more information on nutrition?
Contact your local Health Promotion Office to register for the *Top Fuel for Top Performance* or *Weight Wellness* Lifestyle Programs.

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