#### Medical Ketogenic Diet Fact Sheet

#### What is the medical ketogenic diet?

The medical ketogenic diet is a high fat, adequate protein and low-carbohydrate diet that is used to manage:

- Refractory epilepsy (after 2-3 antiepileptic drugs have failed to control seizures)
- Glucose transporter type 1 deficiency syndrome (Glut1DS)
- Pyruvate dehydrogenase deficiency (PDHD)
- Various other conditions for which the medical ketogenic diet is indicated



The medical ketogenic diet is calculated based on a ratio of the grams of fat compared to the grams of protein + carbohydrate, known as the "ketogenic ratio". The most commonly used ketogenic ratios are 4:1 and 3:1, however, your healthcare provider will select the best ratio for your diet.

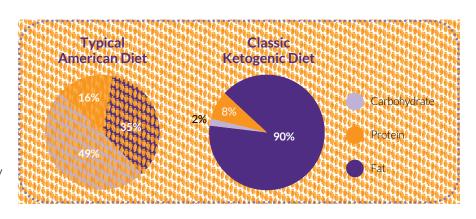
### How effective is the medical ketogenic diet?

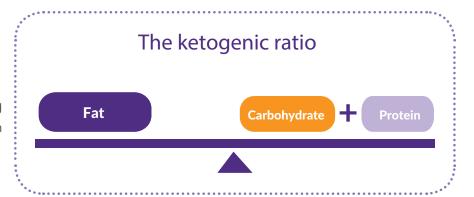
Research shows that over half of individuals with refractory epilepsy will have at least 50% seizure improvement on the medical ketogenic diet.

## Who is likely to have success on the medical ketogenic diet?

The medical ketogenic diet can be helpful for

all types of epilepsy. However, studies show that it may be especially helpful for individuals with myoclonic-astatic epilepsy (Doose syndrome), Rett syndrome, glucose transporter type 1 deficiency syndrome (Glut1DS), tuberous sclerosis complex, and individuals consuming formula only (either by mouth or feeding tube).









Over half of individuals will have at least 50% seizure improvement



1 in 3 will have at least 90% seizure improvement



10-15% will become seizure-free





#### What are the different types of medical ketogenic diets?

Your healthcare provider will work with you to select the most appropriate medical ketogenic diet. This table helps to compare the different types of diets.

#### Are there any side effects with the medical ketogenic diet?

The most commonly reported side effects are gastrointestinal disturbances such as constipation, nausea, vomiting, or diarrhea. Most side effects can be managed easily.

#### Is there any special testing or monitoring required?

After starting the medical ketogenic diet, you will meet regularly with the physician and/or dietitian to ensure that nutrition needs are fully met, and to monitor for potential side effects. Monitoring with routine laboratory tests and adjustments to the diet may occur with each follow-up with your healthcare provider.

# How long do individuals need to stay on the medical ketogenic diet?

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	Diet Design	Food Measurement	Diet Initiation
Classical Ketogenic Diet (cKD) Est. 1921	According to a ratio of the grams of fat compared to the grams of protein plus carbohydrates; Usually 4:1 or 3:1	Gram scale	Usually Inpatient
Modified Ketogenic Diet Est. 2019	Can be combination of modified Atkins and other diet variant or lower ratio classic ketogenic diet. Carbohydrate restricted and fat encouraged, including MCT.	Gram scale & Household measures	Usually outpatient
Medium-Chain Triglyceride Ketogenic Diet (MCT KD) Est. 1971	According to the percentage of calories coming from MCTs, usually 30-60%	Gram scale preferred & Household measures accepted	Usually Inpatient
Modified Atkins® diet (MAD) Est. 2002	According to carbohydrate restriction; Usually limited to 10-20 grams/day	Household measures	Usually outpatient
Low Glycemic Index Treatment (LGIT) Est. 2002	According to the glycemic index of foods	Household measures	Usually outpatient

It is generally recommended that the medical ketogenic diet be tried for at least 3 months to see whether it will be successful. While some individuals see improvements soon after starting the medical ketogenic diet, others may require some time and diet adjustments to see the benefits. Try not to be discouraged if you don't see success right away.

- For individuals with refractory epilepsy who are successfully managed by the medical ketogenic diet, your healthcare provider may recommend weaning from the diet after 2 years.
- For individuals with Glut1DS or PDHD, the diet is usually used for a much longer period, typically throughout childhood and adolescence, and oftentimes for life.

#### Where can I learn more about the medical ketogenic diet?

Your healthcare provider will provide you with more information about the medical ketogenic diet. You can also find information on the following sites:

- MyKetoCal.com
- CharlieFoundation.org
- Epilepsy.com
- KetoHope.org
- MatthewsFriends.org

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