

Ketogenic Diet



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

The ketogenic diet, or keto diet, has been used for nearly 100 years to help people with epilepsy control their seizures. The diet has also helped with other diseases, such as some cancers and Alzheimer's disease, and with weight loss.

Because this diet is very low in carbohydrates or carbs, your body burns fat for energy. This is called ketosis. Ketosis also happens in your body when you haven't eaten for a long time. If you follow a keto diet, fat cells go to your liver where some are broken down and some are stored as ketones.

It can take time for your body to adjust to using ketones and fat for energy, instead of carbs. You may feel weak, tired and even like you have mild, flu-like symptoms. These signs often last a few days or until your body goes into ketosis and adjusts to using fat for energy.

Talk with your doctor or dietitian to see if you may benefit from following a keto diet or if you have other questions.

Types of keto diets

There are 5 different types of the keto diet. The 3 types most often used are:

- Classic Keto
- Modified Atkins
- Low Glycemic Index Treatment (LGIT)

More details and sample menus for each of these diets are included in this handout for your review.

The other types of keto diet are used less often and include:

- Modified Keto – This type is still very limited, but it allows slightly more protein and carbohydrates than Classic Keto.
- Medium Chain Triglyceride (MCT) – Half of the fat comes from a special fat, called MCT, that causes many stomach and intestinal side effects, so it is not very popular.

With all keto diets, drinks are limited to:

- Sugar free beverages, such as water, sugar-free seltzer water, tea and coffee (with the option to add real cream).
- High salt beverages, such as beef, chicken or vegetable broth. These are also good to drink, so you get enough salt, called sodium, in your body.

Classic Keto

- This is the original keto diet used to treat epilepsy.
- Most limited type that requires food to be carefully measured on a gram scale. A scale can be purchased at many stores that carry cooking supplies.
- Most of the calories (90%) come from fats. There are lower proteins and very low carbohydrates in this type compared to the other types of keto diets.
- **Sample menu:**

Breakfast	71 g raw eggs, scrambled with 17 g heavy cream, 28 g butter, 21 g spinach, 10 g mushrooms and 10 g olive oil 1 tablespoon butter or coconut oil Coffee or tea with 1 tablespoon cream
Lunch	Cobb salad that includes 72 g mixed greens, 18 g avocado, 68 g hard-boiled egg (chopped), 14 g chopped bacon and 15 g shredded cheese Tossed in 31 g olive oil and 15 g red wine vinegar
Snack	10 g celery with 30 g full-fat cream cheese
Dinner	Chicken and zucchini noodles that includes 39 g baked chicken breast, 80 g sliced or spiraled zucchini, 28 g olive oil and 32 g basil pesto

Modified Atkins

- This diet has less calories from fat (60%). It is still low in carbohydrates, but does not limit protein as does the classic keto diet.
- This diet is often easier to follow since food does not have to be measured on a gram scale.
- Most people start off on this diet to get into ketosis.
- **Sample menu:**

Breakfast	2 eggs, scrambled 1 tablespoon butter Coffee or tea with 1 tablespoon cream
Lunch	8 oz tuna salad, with real mayonnaise 6 black olives
Snack	4-5 stalks of celery with 2 tablespoons blue cheese dressing
Dinner	6 oz roast pork 1/3 cup cooked spinach 2 tablespoons cream, for spinach 1/2 cup mixed salad greens 1/2 cup avocado slices 2 tablespoons vinaigrette salad dressing

Low Glycemic Index Treatment (LGIT)

- This diet has less restrictions than the other types.
- This diet is meant to mimic a state of ketosis, but does not actually put a person in ketosis. The LGIT diet can help with seizure control but less than the other types of keto diets.
- This diet only allows foods with a glycemic index (GI) of less than 50.
- **Sample menu:**

Breakfast	2 eggs, scrambled 1 tablespoon butter Coffee or tea with 1 tablespoon cream
Lunch	1 medium tomato 8 oz tuna salad, made with real mayonnaise
Afternoon Snack	4 ounces mixed nuts
Dinner	6 oz baked chicken ¼ cup brown rice 2 cups mixed greens ½ cup cucumber slices ½ cup avocado slices 2 tablespoons vinaigrette salad dressing
Evening Snack	¼ cup fresh raspberries

Grams of fat, carbohydrate and protein in each type of diet

Diet type	Classic Keto		Modified Atkins		LGIT		Modified Keto		MCT	
	1,500	2,000	1,500	2,000	1,500	2,000	1,500	2,000	1,500	2,000
Calories per day	1,500	2,000	1,500	2,000	1,500	2,000	1,500	2,000	1,500	2,000
Fat grams	150	200	100-108	133-144	100-117	133-156	133-142	178-189	100-117	133-156
Carb grams	8-15	10-20	19-38	25-50	75-113	100-150	19-38	25-50	75-113	100-150
Protein grams	23-30	30-40	94-131	125-175	38-75	50-100	38-56	50-75	38	50

For more information and recipes

Visit these websites:

- www.epilepsy.com
- www.charlifoundation.org
- www.matthewsfriends.org