

THE KETOGENIC DIET

What is the ketogenic diet? It is a low carb, medium protein, and high fat diet. Doctors and researchers have found that this diet has several significant benefits: weight loss, lowering of blood sugar, lowering of bad cholesterol, raising of good cholesterol, reducing inflammation in the body, reducing risk of heart disease, stroke, and cancer, improvement of many chronic conditions: colitis, reflux, allergies, autoimmune, hormones, gout, kidney stones, and more.

Who would benefit from the ketogenic diet? Doctors who have been working with this diet estimate that 85% of adults would benefit from this diet.

How does this diet work? Your cells can burn either glucose or ketones for energy. Glucose comes from carbohydrates or carbs, and ketones come from dietary or body fat. Every time you go for more than 12 hours without a meal, your body starts to burn body fat and create ketones. By cutting way back on the carbs, you force your body to primarily burn fat or ketones for energy. This reduces your need for insulin.

How do I know if this diet would help me? It depends on how sensitive your body is to the hormone insulin. Insulin is the hormone that your body produces to lower your blood sugar. Over the past 50 years a syndrome called insulin resistance has become very prevalent. This is when your cells do not respond to the normal amount of insulin and your body starts producing higher levels of insulin in order to get your blood sugar within normal limits. Most people who are diabetic, prediabetic or overweight have insulin resistance. But many people who are thin and have normal blood sugar levels can also be insulin resistant. Talk to Dr. Khalsa if you think that you might be insulin resistant.

What causes insulin resistance? Over the past 100 years refined sugar has become a larger part of the standard American diet or SAD diet. This overwhelming amount of sugar has caused people to become insulin resistant. 100 years ago Type II diabetes and obesity were very rare. Now they are both reaching epidemic levels. This is all related to insulin resistance.

What can I eat on the ketogenic diet? Most of your calories are from fat: olive oil, coconut oil, avocados, nuts, butter, cream, eggs, and animal fat. You get your protein from tofu, nuts, protein powder, cheese, fatty meats and eggs. Because protein levels are moderate, you do not eat large quantities. Your body cannot store protein. It uses protein to rebuild the body and any excess is converted into sugar, which can take you out of ketosis. Carbs are restricted to 20 grams a day. This means that there is no fruit except for a garnish of berries, no grains, no breads, no pasta, no starchy vegetables (potatoes, yams, winter squash), and no beans. While nuts provide a lot of fat and protein, they also contain carbs so these need to be carefully monitored. Also vegetables are relatively low in carbs, but also need to be monitored. Vegetables that are “fruits” like tomato, zucchini, cucumbers and peppers have more carbs than vegetables that are leaves like spinach and lettuce.

Isn't all that fat really bad for the heart? In 1977, the government started recommending that a low fat diet was the best way to prevent heart disease. This began the age of low-fat obsession. Anything with fat was automatically assumed to be bad. Looking back, there was very little actual science to support this assertion and since then, there have been many studies that show that there is no link between a high fat diet and heart disease. Researchers have found that a low carb, high fat diet has been shown to lower weight, blood sugar, cholesterol and triglycerides and decrease plaque and blockage in the blood vessels.

Diets are really hard. I crave sweets and starches. Will this happen on this diet? Everyone has experienced how hard it is to go on a calorie restricted, low fat diet. Because this diet is burning ketones instead of sugar, the cravings that come with low blood sugar are avoided. If you do begin to have any cravings, eating some fat will make them disappear. Based on Dr. Khalsa's experience, this has been the easiest diet that he has ever tried.

If you are interested in more information about the Ketogenic diet, go to Dr. Khalsa's website at www.khalsachiropracticpasadena.com and click on the link at the top “A new approach to weight loss”. Dr. Khalsa has made several videos that explain this diet in more detail. You will also find several pdf files to download and links to many other websites. Ask Dr. Khalsa at your next visit if he thinks that this diet would be helpful to you.

Tips on getting started on the back of this page.

Getting Started on the Ketogenic Diet

Step one: Talk to Dr. Khalsa about whether he thinks this diet is right for you.

Step two: Watch Dr. Khalsa's videos explaining the diet and read the supporting literature.

Step three: If you need more information, go to one of the resources that Dr. Khalsa recommends:

- A. Read the book KetoClarity by Jimmy Moore.
- B. Start listening to the podcast "Ketotalk" which you can download through Itunes or at the link below.
- C. Here are some other websites that have information about the Ketogenic diet:

<http://ketotalk.com/>

<https://docmuscles.com/>

<https://www.adaptyourlife.com/>

<http://www.dietdoctor.com/>

<http://www.healthfulpursuit.com/>

<https://authoritynutrition.com/23-studies-on-low-carb-and-low-fat-diets/>

Step four: Consider buying all or some of the following equipment:

- A. True Test Diabetes test kit - \$35 on Amazon – includes testing device and 100 test strips
- B. Ozeri Pronto digital food scale - \$11 on Amazon
- C. Health o Meter Digital measuring tape - \$11 on Amazon
- D. Some way of measuring ketones
 1. Keto urine strips - \$10 on Amazon – only good for first month or so
 2. Ketonix breath analyzer - \$150 – no ongoing costs – easiest to use
 3. Precision extra Blood ketone strips and measuring device. Device \$25. Test strips expensive - \$2.50 each from Canadian Pharmacy: www.universaldrugstore.com

Step four: Decide on a start date and take several measurements:

- A. Weight
- B. Body fat percentage. If you want to do this exactly, I suggest getting a DXA scan at Body Spec. The cost is \$45 and it gives you a very accurate picture of what your body fat percentage is, and where you are holding this fat. You can redo this every 3 months or so. They have an office in Los Angeles, but also do scans around the LA area in a mobile unit. Go to www.body-spec.com to find out if they are scanning near you in the near future. I highly recommend doing this before you start.
- C. Waist measurement. Tighten your abdominal muscles as if someone were going to punch your gut and measure while you are holding this tension.
- D. Other body measurements like thighs, hips, neck, etc. – optional

Step six: Get blood work done before you start for baseline values:

- A. NMR Lipoprofile with insulin markers – this test is done through Labcorp and is the most important – this looks at the size and number of particles of lipoproteins in your blood. This indicates cardiovascular risk and also insulin resistance better than any other tests.
- B. CBC – many blood indicators including fasting glucose
- C. Basic Metabolic Profile – liver, kidneys, etc.
- D. A1C Hemoglobin - 90 day average of blood sugar
- E. Fasting insulin – insulin levels

Step seven: Review blood results with Dr. Khalsa

Step eight: Start the diet. Write all foods you eat in food diary.

Step nine: While on diet, you will be checking your own levels on a regular basis:

- A. Daily – ketone levels for first two weeks, then less depending on cost and device
- B. Daily - fasting glucose for first two weeks, then twice a week
- C. Weekly – weight, waist and other measurements
- D. Every two to three months – blood work and DXA body scan.