

Preparing to Make Changes

A properly formulated ketogenic diet is a very powerful tool, and you want to make sure you understand what will happen before you start. **This is especially true if you take any kind of medication for managing blood sugar (diabetes) or high blood pressure.** These medications will have to be adjusted immediately, so check with your doctor beforehand. In addition, read these pages on my website:

- Who should NOT follow a ketogenic diet: [list of medical contraindications](#).
- The [dangers of low carb diets](#). (If the diet is done correctly, there aren't any).
- Know the [side effects](#) of a ketogenic diet so you can treat them.
- The amazing list of [benefits provided by ketogenic diets](#).

3 Steps to a Custom Ketogenic Diet



Determine your ideal body weight. This can be any weight at which you feel best, or it can be based on a calculator result like this one:

<https://www.rush.edu/health-wellness/quick-guides/what-is-a-healthy-weight>



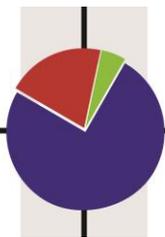
Establish daily calorie requirement to maintain ideal body weight. Use the handy calorie calculator links below along with your ideal weight and activity level to determine the daily calorie amount you should consume to maintain a normal weight or body mass index (BMI).

<http://www.cimedicalcenter.com/metabolism-p124>

<http://www.bcm.edu/cnrc/caloriesneed.cfm>



Figure out how much protein, carb and fat to eat based on ideal weight and calories. Using the guides below and your ideal body weight and daily caloric intake, figure out your total daily intake of fat, protein and carbohydrate in gram and calorie measures. You can then use a program like MyFitnessPal or FatSecret to track your numbers.



Protein, Carb and Fat Gram Guide

Protein Requirements: Generally, protein intake should be between 1 gram and 1.5 grams per kilogram of lean body mass (if you know it) OR ideal body weight.

Example: a person weighs 150 pounds and has a lean body mass of 100 pounds. To calculate average optimal protein intake, we set the lower end of the range at 1.0 g/kg/LBM and the higher end at 1.5 g/kg/LBM. Taking into account that dividing pounds by 2.2 = kilograms, the math looks like this:

- $100 \text{ pounds LBM} / 2.2 = 45 \text{ kilograms LBM}$
- $\text{Multiply } 45 \times 1 = 45 \text{ grams of protein}$
- $\text{Multiply } 45 \times 1.5 = 67.5 \text{ grams of protein}$

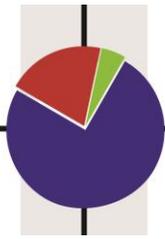
So the average optimal protein intake range for this person would be 45-68 grams per day. Protein has 4 calories per gram, this works out to 180 – 272 calories. See my daily protein requirements page for more detailed information:

<http://www.ketogenic-diet-resource.com/daily-protein-requirement.html>

Carbohydrate Amounts: The general goal is to stay under 60 grams of carbohydrate per day, but this is an individual thing. If you exercise a lot and have lots of muscle mass, you could probably eat more and stay in ketosis. If you are severely insulin resistant, diabetic or have other metabolic issues, may need limit carbohydrate further to stay in ketosis. If weight loss is your goal and it's not happening, lower your carbohydrate intake to below 30 grams. If you still have issues losing weight, keep protein grams toward the 1 gram/kg range but don't go below that. If that doesn't work, reduce fat intake until weight loss begins.

Note on carb cycling: Athletes have been told that spiking carb intake every week is a good thing. I think it will put you in a gray zone of fueling where you won't be eating enough carb to make it a primary fuel and eating too much carbohydrate for ketones to be a primary fuel. This may result in a net loss of muscle mass to make glucose for the brain when ketones are not available. Unless you exercise hard for several hours a day, you don't need to "carb load." See Jeff Volek's work at Ohio State on endurance exercise while in ketosis.

Fat Amounts: Calories from fats and oils will make up the balance of your calories after subtracting protein and carb calories. I've included some examples of how to figure out the number of fat grams in the next section.



Putting the Steps Together

Example 1: Our example person is overweight, and would like to get down to an ideal weight of 150 pounds. They have decided on a daily calorie limit of 1800 calories per day, 30 grams of carb and 1 gram/kg of ideal body weight for protein. **Reminder: to get weight in kilograms, divide pounds by 2.2. Protein and carb have 4 calories per gram, and fat has 9 calories per gram.** Here's the math:

Protein: $150/2.2 = 68$ kilograms = $68 * 1$ gram = 68 grams or 272 calories

Carb: 30 grams = 120 calories

(protein and carb calories combined = 392 calories)

Fat grams from balance of calories : 1800 total calories – 392 protein and carb calories = 1408 fat calories. To get grams of fat, divide fat calories by 9: $1408/9 = 156$ grams of fat per day.

Example 2: This example person is at an ideal weight of 185 pounds. They have decided on a daily calorie limit of 2500 calories per day, 60 grams of carb, and will shoot for the higher end of the protein range because they exercise for an hour every day. They will aim for about 1.5 grams of protein per kilogram of ideal body weight. Here's the math:

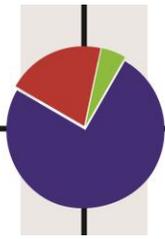
Protein: $185/2.2 = 84$ kilograms. $84 * 1.5$ grams = 126 grams of protein or 504 calories

Carb grams: 60 grams = 240 calories

(protein and carb calories combined = 744 calories)

Fat grams from balance of calories : 2500 total calories – 744 protein and carb calories = 1756 fat calories. To get grams of fat, divide fat calories by 9: $1756/9 = 195$ grams of fat per day.

I realize that there are ketogenic calculators on the web that can do the math for you. However, I think their results are suspect in that they don't take into account individual variances such as body knowledge, exercise habits and health conditions. I think it's better for you to know how these numbers are reached so you can tweak them to your individual needs.



General Guidelines and Rules

Here are some general guidelines and rules for following a ketogenic diet. You'll get better results if you eat only what's listed below and follow the guides and rules. Everything else is flexible.

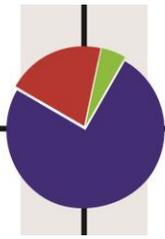
Rule 1: It's best to eat only foods that are listed in this document. If you decide to include other foods, check the label for carbohydrate count and double check the per serving size. The food should have 2 grams or less per serving for meat and dairy products, or 5 grams or less for vegetables.

Rule 2: When you are hungry, eat your choice of the following foods. Once hunger subsides, stop eating.

Meats, Poultry, Seafood (fresh or frozen, check for additives in frozen products)

- Meat of any kind: beef, lamb, veal, goat, wild game. Grass fed meat is preferred, as it has a better fatty acid profile.
- Pork of any kind: pork loin, Boston butt, pork chops, ham. Watch for added sugars.
- Poultry of any kind: chicken, turkey, quail, Cornish hen, duck, goose, pheasant.
- Fish or seafood of any kind, preferably wild caught: anchovies, bass, calamari, catfish, cod, flounder, halibut, herring, mackerel, mahi-mahi, salmon, sardines, scallops, scrod, sole, snapper, trout, and tuna.
- Canned tuna and salmon are acceptable but check the labels for added sugars or fillers. (Exception: Avoid breaded and fried seafood.)
- Shellfish: clams, crab, lobster, scallops, shrimp, squid, mussels, and oysters. (Exception: imitation crab meat. It contains sugar, gluten and other additives.)
- Whole eggs: These can be prepared in various ways: deviled, fried, hard-boiled, omelets, poached, scrambled, and soft-boiled.
- Bacon and sausage: check labels for carb counts, less than 2 grams per serving.
- Soy products such as tempeh, tofu and edamame are good sources of protein, but they are higher in carbohydrate, so track them carefully.
- Avoid whey protein and foods which include it until you reach weight loss goals. It spikes insulin.

Protein sources may be cooked in a microwave oven, grilled, baked, boiled, stir-fried, sautéed, roasted or fried with natural fats listed above (but no flour, breading, or cornmeal)



Rule 3: Eat one or two cups of salad greens every day, and one cup of fibrous vegetables each day. (This rule is important for vitamin K intake).

Salad Greens

Consume 1-2 cups a day. If it is a leaf, you can eat it, and 1 cup is about a fist sized portion.

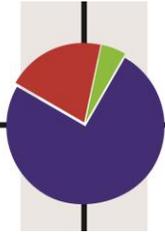
- Cabbage (all varieties)
- Chives
- Greens (all varieties, including beet, collards, mustard, and turnip)
- Lettuce (all varieties)
- Parsley
- Spinach
- Kale
- Chard

Fibrous Vegetables

Consume 1 cup a day. Can be either a single choice or a combination totaling 1 cup of the following:

- Alfalfa and bean sprouts
- Asparagus
- Bamboo shoots
- Bell pepper
- Bok choy
- Broccoli
- Brussels sprouts
- Cauliflower
- Carrot*
- Celery
- Cucumber
- Green beans (string beans)
- Jicama
- Mushrooms
- Okra
- Radishes
- Rhubarb
- Rutabaga (swede)
- Snow peas
- Sprouts (bean and alfalfa)
- Sugar snap peas*
- Summer squash
- Tomatoes*
- Turnip
- Wax beans
- Water Chestnuts
- Zucchini

*these foods are higher in sugar so eat in raw state and limit to ½ cup amounts.



Rule 4: Use fats as recommended below.

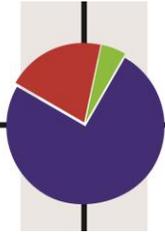
The list below gives recommendations on fats to consume. You will note that vegetable oils are minimized and saturated animal fats are emphasized. This is to reduce your intake of polyunsaturated fatty acids. These fats are chemically unstable and highly inflammatory to the body.

Fats to Use For Cooking/Heating

- Beef tallow, preferably from grass fed cattle
- Butter: (low temp frying) Try to find organic sources
- Chicken fat, organic
- Duck fat, organic
- Ghee (butter with milk solids removed)
- Lard , organic (make sure it is NOT hydrogenated)
- Olive oil, organic cold pressed
- Organic coconut oil, coconut butter and coconut cream concentrate
- Organic red palm oil in small amounts (high in vitamin A)

Fats to Use For Cold Dressings

- Avocado oil
- Macadamia oil
- Mayonnaise: contains soybean oil, so don't go crazy. If you can make your own using olive, avocado or macadamia oil, that's best. (Also, most brands have sugar in them, so read labels. Duke's brand is sugar free.)
- Seed and most nut oils: Almond oil, sesame oil, flaxseed oil, etc. These are high in inflammatory omega 6 fats, so limit amounts, and don't heat them.
- Avoid vegetable oils as much as possible (corn, canola, grapeseed, safflower, sunflower, rice bran, etc.) These are very high in inflammatory omega 6 fats and the production methods introduce toxins into the final products.



Rule 5: Eat the following foods in limited quantities.

Cheese: up to 4 ounces per day

Carb count should be less than 1 gram per serving

Hard, aged cheeses such as Swiss and Cheddar.

Soft such as Brie, Camembert, blue, mozzarella, goat cheeses.

Whipped and block cream cheese with no added whey.

Avoid processed cheeses such as Velveeta and high carb types such as Gjetost.

Dairy Cream: up to 4 tablespoons a day

Check labels, avoid products which have whey added

Heavy cream, whipping cream, or sour cream.

Avoid using half-n-half or milk, too many carbs.

Fatty Vegetables

Olives (Black or Green): – Up to 7 a day.

Avocado. Limit to ½ of avocado per day.

Mayonnaise: up to 4 tablespoons a day

Less than 1 carb per serving. Duke's and Hellmann's are low-carb.

Check the labels of other brands.

Other Condiments

Lemon/Lime Juice: Up to 4 teaspoons a day.

Ketchup: buy low sugar and limit to 1 tablespoon per day.

Soy Sauces: Up to 4 tablespoons a day. Check the labels for carb content.

Salad dressings: make your own from oil and vinegar (not balsamic) or mix sour cream and spices and thinning with cream or water.

Pickles: check the labels for carbohydrates and serving size.

Dill or sugar-free types: Up to 2 servings a day.

Bubbies brand offers sugar-free pickles.

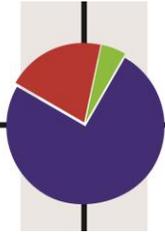
Spices and stevia or other artificial sweeteners in small quantities

Snacks/Baking

Pork rinds in small amounts (No more than 2 servings per day.)

Nuts and nut flours in small amounts (no more than 1 ounce per day).

Avoid snacks made from whey protein, it spikes insulin and increases hunger.

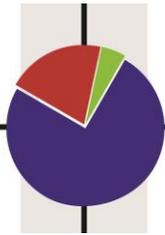


Beverages Allowed

- Almond milk, unsweetened (2 cups/day)
- Clear broth or bouillon
- Decaf coffee
- Decaf Tea (unsweetened)
- Herbal tea (unsweetened)
- Water
- Flavored seltzer water (unsweetened)

Quick Snack Ideas

- Spread a slice of ham, turkey or salami with cream cheese or mayonnaise, add a slice of cheese, roll up by itself or in a lettuce leaf
- Cooked bacon, tomato chunks and mayonnaise or cream cheese in lettuce leaf
- Cut cooked steak, pork or chicken into small pieces and mix with mayonnaise, sour cream, cream cheese or avocado
- Deviled eggs or hard boiled eggs sliced and spread with mayonnaise or sour cream
- Smoked salmon slices spread with cream cheese mixed with dill and lemon juice
- Smoked salmon mixed with scrambled eggs and topped with cream cheese
- Crab meat mixed with cream cheese and lemon juice on cucumber slices
- Shrimp with minced onion, mayonnaise and dried dill on cucumber slices
- Beef jerky cured without sugar (Organic Prairie brand is a good choice.)
- Antipasto made from peppers, olives, prosciutto or salami and cheese cubes
- Tuna mixed with mayonnaise and cream cheese and piled on cucumber rounds
- Olives stuffed with feta cheese
- Roasted or raw nuts
- Dill pickles with cheddar cheese
- Pork rinds dipped in a mixture of full-fat sour cream and low-carbohydrate salsa
- Pork rinds dipped in ranch dressing or pesto sauce
- Jicama, radishes or turnip sticks with full-fat sour cream dip or ranch dressing
- Baked chicken wings (no breading) and blue cheese dip
- Celery stuffed with a cream cheese/blue cheese mixture
- Celery stuffed with cream cheese mixed with curry or any other spice you like
- Celery stuffed with almond butter
- Macadamia nuts fried in butter and sprinkled with cinnamon



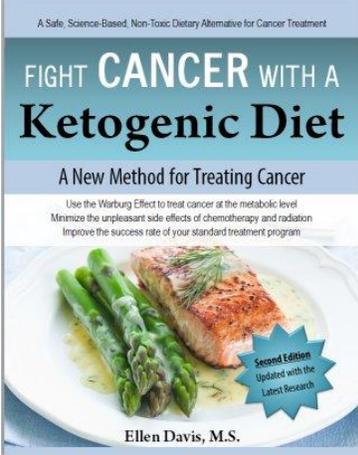
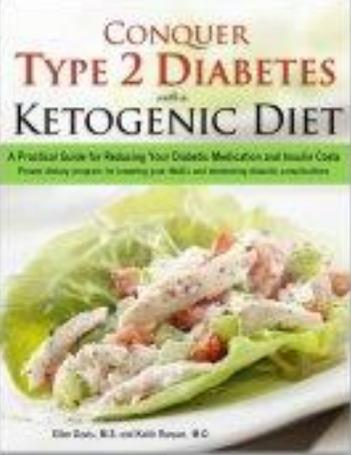
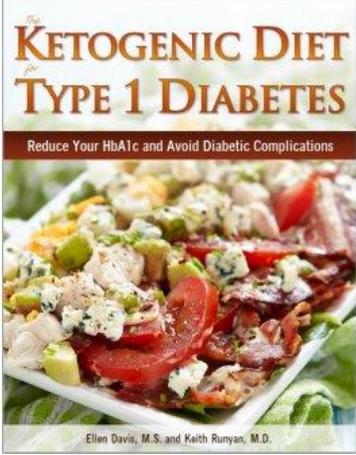
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- Pecans with thin slices of blue cheese
- Chunks of avocado and tomatoes mixed with mayonnaise
- Steamed or boiled shrimp with dill mayonnaise
- String cheese and pepperoni slices
- Cucumber and tomato chunks with feta cheese and balsamic vinegar
- Sliced radishes spread with cream cheese and sprinkled with chives or spices
- Shrimp mixed with a low-carb Thai green chili sauce and sprinkled with cilantro
- Mix crispy cooked bacon and blue cheese with sour cream, then add spices to taste (This makes a good dip for raw broccoli and cauliflower or leftover cooked chicken.)
- Mix ¼ cup of almond butter and a little heavy cream and sweetener
- Mix 2 ounces of cream cheese with 2 tablespoons heavy cream and sweetener
- Greek yogurt mixed with cardamom, ginger, cinnamon and sweetener

More on Specific Health Concerns

For those with specific health issues, my books offer detailed information on the following health conditions:

 <p>http://www.ketogenic-diet-resource.com/cancer-diet.html</p>	 <p>http://www.ketogenic-diet-resource.com/diabetes-diet.html</p>	 <p>http://www.ketogenic-diet-resource.com/treatment-for-diabetes.html</p>
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