

# THE KETOGENIC DIET AND DIABETES



There are benefits to restricting/reducing carbohydrate foods to manage diabetes. Be prepared to check your blood sugar often as medication adjustments are usually needed.

**\* Talk to your health care provider before making significant changes to your diet.\***

## WHAT IS A KETOGENIC DIET?

A ketogenic diet is a pattern of eating that forces the body to use fat as the main source of energy instead of glucose (or sugar). It is a different pattern of eating than usual for most people and often means making changes to the foods you eat. The diet is:

- Low in carbohydrates (<50 grams/day)
- High in fat
- Adequate in protein

## POTENTIAL BENEFITS



- Lower blood sugars
- Lower blood pressure
- Lower triglycerides and better HDL cholesterol
- Feeling less hungry & more satisfied
- Loss of fat in & around your internal organs
- Reduction in medications

## POTENTIAL RISKS



- Low blood sugar
- Low blood pressure
- Electrolyte imbalance (e.g. sodium/potassium)
- Higher LDL cholesterol
- Kidney stones
- Abnormal heart rhythm

## POTENTIAL SIDE EFFECTS

*Side effects may occur in the first few weeks and usually go away*



- Irritability / anxiety
- Fatigue
- Headaches
- Bad breath
- Increased urination
- Increase in appetite
- Increased effects of alcohol
- Muscle cramps
- Shakiness/weakness
- Constipation/diarrhea
- Heart palpitations
- Temporary hair loss

## MEDICATION FACTORS

Many of your medications may need to be reduced or stopped. In particular, insulin doses may need to be lowered to avoid low blood sugar.



Test your blood sugar often, this information will help you & your healthcare provider/Certified Diabetes Educator make medication adjustments. Everyone is different, and it is hard to know what changes may be needed.

**People with type 1 diabetes will always need insulin, even on a very low carbohydrate diet.**

# THE KETOGENIC DIET AND DIABETES

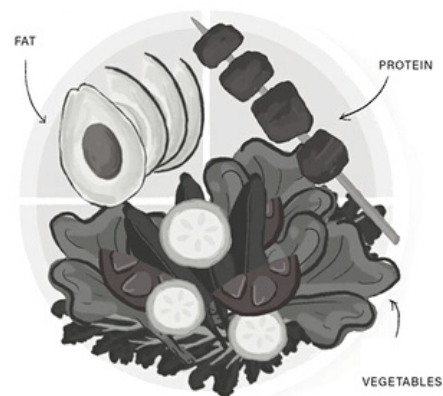


## CONSIDERATIONS

Be sure to ask yourself the following questions to see if this is the 'diet' for you:



1. Can I remove the "Foods to Avoid" from my diet?
2. Am I able to make most of my food at home?
3. What are my goals for this diet?
4. Do I have the time and energy to focus on this right now? What else is happening in my life? Stress levels?
5. Have I discussed this with my healthcare provider?
6. Am I able to meet regularly with my doctor and dietitian?
7. Am I able to track and count carbohydrates in my food – either using a program, an app or on my own?



	FOODS TO INCLUDE	FOODS TO AVOID
<b>BEVERAGES</b>	Water (including carbonated), decaf coffee/tea (no sugar added, includes herbal tea), clear broth. If medically appropriate (ask your doctor) small amounts dry wine or hard liquors	Pop (regular), fruit juice Most smoothies (especially purchased) Any drinks with added sugar Beer, sugary alcoholic beverages, ciders, sweet wines
<b>MEAT, FISH, POULTRY &amp; EGGS</b>	Eat meat and fish moderately (portion = palm of your hand). Choose frozen and whole cuts (including fat) to minimize cost. Tofu, eggs and tempeh are a good vegetarian option.	Fish sticks, chicken nuggets (anything breaded or processed -e.g. added sugars). Minimize processed vegetarian food
<b>VEGETABLES</b>	Eat lots of leafy greens and cruciferous vegetables (broccoli, cauliflower, brussel sprouts), choose frozen to save money.	Canned vegetables with added sugar or syrup. Limit corn and green peas (unless still in their pods). Avoid root vegetables (potatoes, squash, sweet potato, etc.)
<b>MILK PRODUCTS</b>	Full-fat plain yogurt (5-10%), cottage cheese, sour cream, cheese, butter. Small amounts of full-fat milk (3.25%); consider unsweetened almond or coconut milk instead.	Sweetened yogurts or yogurt drinks. Low-fat dairy products (like skim milk), cheese 'products' (wrapped in plastic, in a can- these often have added sugar).
<b>FATS &amp; OILS</b>	Olive oil, avocado oil, walnut oil, coconut oil, butter, animal fats, ghee, cheese- can be added to vegetables/foods during cooking or at the table	Margarine/vegetable oils (made from corn, grape seed, safflower etc.), trans fats, hydrogenated oils. <i>These fats are carbohydrate free but have other less healthful effects so minimize their use when possible.</i>
<b>NUTS &amp; SEEDS</b>	Most nuts and seeds (especially walnuts, brazil, macadamia, pecans, hazelnuts). If trying to lose weight, limit serving size.	For those aiming for strict carb targets, avoid cashews and pistachios. Avoid nuts or seeds with coatings or added sugar.
<b>FRUIT</b>	Most fruits are very limited but the following can be included: avocados, olives, peppers, tomatoes, cucumbers. Some blackberries, raspberries, strawberries.	Fruit juices, smoothies, most whole and dried fruits except small amounts of berries infrequently.
<b>LEGUMES</b>	None.	All (e.g. dried/canned beans, lentils, chickpeas).
<b>BREADS &amp; GRAINS</b>	None, except pasta made from edamame, konjac, black beans or homemade 'bread' made with almond or coconut flour.	Breakfast cereal, pasta, rice, granola, bread, oatmeal, any foods made from grains.
<b>SNACKS</b>	Foods on the 'allowed' list. Small amount of 85% dark chocolate ( read labels for carbohydrate content to ensure it fits into your plan)	Anything processed, granola bars, pudding, baked goods, ice cream, chips, candy, crackers.
<b>SUGARS SWEETENERS</b>	None. Small, infrequent use of artificial sweeteners (as may worsen cravings).	All including: syrups (e.g. agave, corn), sugar (e.g. glucose, fructose), honey, maple syrup, fruit juice concentrate.