

Tips for Eating a Diet Lower in Carbohydrates



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- Carbohydrates are one of three macronutrients, along with protein and fats
- Dietary carbohydrates include plant products such as grains (flour), vegetables, fruits, beans, and all added sugars (cane sugar, brown sugar, honey, maple syrup, etc.). Dairy contains also some carbohydrates.
- Carbohydrates are an important source of energy that your body needs to function properly.
- All carbohydrates you eat are broken down by your digestive tract into small sugar molecules known as monosaccharides, such as glucose, which your body uses for energy:
 - Glucose is released into the bloodstream and is then taken up by your body's cells with the help of the hormone insulin.
 - Insulin levels correspond to the amount of carbohydrate that you eat and higher insulin levels have been linked to increased risk of developing several types of cancer. In addition to insulin, other similar molecules called insulin-related growth factors (IGF) have been shown to stimulate the growth of many types of cancer cells.
 - High insulin and IGF-1 can also contribute to the development of diabetes, obesity, and insulin resistance, all of which can in turn also increase cancer risk.
- In the cancer setting, the goal is to have a more balanced carbohydrate diet that does not lead to spikes in blood sugar, insulin and IGF-1 levels, which could potentially stimulate the growth of cancer cells. Since most North Americans eat too many carbohydrates (simple carbohydrates in particular) the solution for many of us is to lower our carbohydrate intake overall.
- A standard North American diet contains very high carbohydrates, about 200-300 grams per day, while **a lower carbohydrate diet typically provides anywhere between 50 and 80 grams per day**
- A lower carbohydrate diet should mostly consist of lower carbohydrate fruits and vegetables, grass fed meat and organic poultry, wild caught fish, eggs, and healthy fat sources such as olive oil, avocados, raw nuts and seed, and coconut milk/oil.

Tracking the amount of carbohydrates you are eating

- Initially, you will count how many grams of carbohydrates you eat each day.
- You can do this with a free downloadable app, like Cronometer, MyFitnessPal, Total Keto Diet, etc.
- You should also read food labels and look online for nutritional information on fruits and vegetables.

Types of carbohydrates

- It's not only about the number of carbohydrates you eat, it's also important to consider the type. Not all carbs are equal! Work to reduce simple carbs and replace them with ones that are more complex.
 - *Simple carbohydrates* are refined, modified and processed. This causes the sugars they contain to be released quickly into the bloodstream after they are eaten, spiking your blood sugar. Examples of simple carbohydrates include white flour (flour) and white rice.
 - *Complex carbohydrates* contain fiber, which slows down the release of sugars into the bloodstream, leading to more balanced blood sugar levels. Whole, minimally processed foods such as fruits and vegetables, legumes, and whole grains are high in fiber. Examples of complex carbohydrates include whole-wheat flour and brown rice.

Resources

- Blog, recipes and free, 5-day meal plan: www.ditchthecarbs.com
- Brand names of low carb options in Canada: www.lowcarbcanada.ca
- Blog, recipes: www.peaceloveandlowcarb.com
- Online low carbohydrate food store: www.naturamarket.ca

Low Carbohydrate Substitution Ideas

FOOD	LOW CARB SUBSTITUTE	TIP
Rice *1 cup cooked white rice has 40-50 grams of carbohydrates	<ul style="list-style-type: none"> ❖ Riced vegetables: cauliflower, broccoli, cabbage, zucchini, rutabaga, sweet potato, butternut squash etc. ❖ Riced shirataki/konjac (Miracle Rice®) 	Check the freezer aisle &/or produce section at grocery stores, as many brands make these products already “riced”
Crackers	<ul style="list-style-type: none"> ❖ Dehydrated or baked vegetable slices such as zucchini, eggplant, sweet potato, etc. ❖ Cut up fresh vegetables such as radish, cucumber, celery, zucchini, etc. ❖ Flackers® or Cali'flour Foods® Cracker Thins 	
Pasta *1 cup cooked white pasta has about 20-30g of carbohydrates	<ul style="list-style-type: none"> ❖ Spiralized veggies such as zucchini, beet, sweet potato, broccoli, etc. ❖ Baked spaghetti squash ❖ Black bean, lentil or chickpea pasta (Tolerant®, Explore Cuisine®) ❖ Shirataki/Konjac noodles ❖ Edamame/Mung Bean Pasta (Zeroodle®) 	Check the freezer aisle or produce section at grocery stores, as many brands make these vegetables already spiralized
Bread/buns *1 slice of white bread is about 15g of carbohydrates	<ul style="list-style-type: none"> ❖ Make your own coconut or almond flour bread ❖ Carb Wise® or Unbun® bread/buns ❖ Ezekiel® sprouted bread ❖ Cloud Bread – make your own ❖ Sliced and baked sweet potato toast 	Carb Wise®, Unbun® and Ezekiel® brands are available in most health food stores and some larger grocery stores
Pizza crust	<ul style="list-style-type: none"> ❖ Cauliflower pizza crust – make your own or try Cali'flour Foods® Cauliflower Pizza Crust ❖ Almond flour crusts – make your own 	Some brands make “cauliflower crusts” with added rice or corn flour and are not low carb. Look for brands that are grain-free to ensure it's low carb.
Sugar *1 tablespoon of white sugar is about 13g of carbohydrates	<ul style="list-style-type: none"> ❖ Stevia ❖ Monk Fruit/ Luo Han Guo ❖ Sugar alcohols: erythritol, xylitol 	All types of sugars contain carbs: brown, white, turbinado, maple syrup, honey, agave, etc.
Wheat flour (flour) for baking	<ul style="list-style-type: none"> ❖ Coconut flour ❖ Almond flour ❖ Chickpea flour 	These cannot be substituted 1:1 for wheat flour. Ensure that you are using a flour-specific recipe for best results.
Wraps	<ul style="list-style-type: none"> ❖ Nuco® Coconut wraps ❖ Raw wraps ❖ Use large lettuce, collard, kale, or cabbage leaves as a wrap ❖ Nori seaweed sheets 	
Snack ideas	<ul style="list-style-type: none"> ❖ Bars: Love Good Fats bars®, Good To Go Bars®, Primal Kitchen®, Simply Bars® ❖ Seaweed/sea vegetable snacks ❖ Grass-Fed Beef or Turkey Snack Sticks ❖ Roasted beans: like chickpea, lentils and peas ❖ Kale chips ❖ Nuts and seeds 	
Sweet treats	<ul style="list-style-type: none"> ❖ Lily's® brand chocolate is stevia-sweetened ❖ Smart Sweets® instead of candies: made with stevia and extra fiber 	