

## WHOLE FOODS – LOWER CARBOHYDRATE (starch & sugar) / HEALTHY FAT

There is a lot of information on this handout. Please remember, small changes matter!

The most important thing is to minimize added sugars and trans fats, and to focus on whole foods (most often prepared at home).

The Lower Carbohydrate Healthy Fats (LCHF) way of eating is a safe and effective way to lose weight and reverse chronic diseases such as metabolic syndrome and type 2 diabetes. If you have serious metabolic issues, you will benefit from taking a strict approach. If you don't need to lose weight and don't have insulin resistance, you can be a little more liberal with carbohydrate intake in the form of more whole foods (e.g., increased fruit, root veggies, lentils).

In a standard diet, we can easily eat 250+ grams of carbohydrates daily, many of these carbs adding little nutritional value. Indeed, these carbs can cause actual harm. A World Health Organization guideline: "recommends adults and children reduce their daily intake of free sugars to less than 10% of their total energy intake. A further reduction to below 5% . . . would provide additional health benefits. [. . .] Much of the sugars consumed today are 'hidden' in processed foods that are not usually seen as sweets. For example, 1 tablespoon of ketchup contains around 4 grams (around 1 teaspoon) of free sugars. A single can of sugar-sweetened soda contains up to 40 grams (about 10 teaspoons) of free sugars."<sup>1</sup>

**NOTE: The values below are NET carbohydrates = total carbohydrates minus fibre.** Fibre from real food (not products) is great!

**Low** (< 20 g carbs per day)<sup>2</sup>



6 g carbs. Steak, broccoli, cherry tomatoes, leafy greens, herbed butter (white pats).

**Moderate** (20-50 g per day)<sup>2</sup>



16 g carbs. Carrots and red pepper added.

**Liberal** (50-100 g per day)<sup>2</sup>



37 g carbs. Sweet potato fries added, no broccoli.

## Basic Principles:

1. Minimize carbs (starches and sugars), especially pastas, breakfast cereal, rice, pastry, potatoes, bread and other flour-based foods. The sweetest fruits (any dehydrated fruit, bananas, grapes, mangos) should also be avoided most of the time. Think of it as doubling your non-starchy vegetables, keeping protein the same or just a bit higher, and no longer fearing fats naturally present in whole foods.
2. As much as possible, eliminate processed foods, added sugars, vegetable oils and trans fats. Trans fats are found in highly processed products: fried foods (outside the home) and processed/packaged foods in the middle section of most grocery stores (crackers, cookies and other snacks, chips, frozen pizza crusts, doughs in a can, creamer, some margarine, etc.).
3. Eat the same amount of protein as before, assuming it was adequate. (Generally 0.8-1.2 g/kg ideal weight; protein requirement varies depending on medical conditions, age and level of activity. Ask your MD for guidance if unsure.).
4. Increase your intake of natural fats to help you feel full after eating. Natural fats also improve the taste of foods. If a meal has adequate fat and protein, you should be full for at least 4 hours. Avoid snacking, except in the initial weeks of switching to this way of eating. You should NOT be hungry!
5. Limit the time during which you eat to 12 hours (e.g., between 6 am and 6 pm). Over time you may wish to decrease this to 8 hours (e.g., 11 am to 7 pm). If you are not hungry, don't eat until you are, and then eat well.
6. There is an adaptation period. The first week is the toughest, but you may not feel quite normal (especially with vigorous exercise) for up to 3 months. Make sure you are getting enough sodium (salt) and fluids. Also focus on magnesium and potassium-rich foods.
7. Alcohol tolerance decreases with this way of eating. Binge drinking is strongly discouraged, as it can be dangerous.
8. This is a way of eating, not a 'diet.' You need to do this in a way you can sustain for the rest of your life. There will be special occasions (e.g., Grandma's once-a-year perogies) where you can (and perhaps should) make exceptions. Donuts, however, are not special. Eat consciously, and when you choose to have those special, rare non-whole-food carbohydrates, savour them, then get back to your new way of eating.
9. Remember that taking care of yourself involves more than just what you eat. Remember to take time for exercise, social connections that make you happy and SLEEP!
10. Avoid processed products: labels might be low fat, no fat, gluten-free, or low carb. Junk is junk. Stick to whole foods whenever possible. Learn to use these phrases: "That's not food," and "I don't eat that."

*Dr. Katherine Kasha gratefully acknowledges the contributions from Dr. Èvelyne Bourdua-Roy, Dr. Wendy Thomas, and Dr. Andreas Eenfeldt's website, Diet Doctor. Thank you to all the many other physicians and friends who provided helpful suggestions on both content and formatting.*














**\*\*Please note, your physician should be aware of any significant dietary change. Eating this way is therapeutic; those on medication, particularly for diabetes and/or high blood pressure, must be monitored closely.\*\***







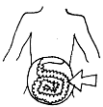

### **Additional resources and information:**

*The Obesity Code*, book by Dr. J. Fung

Public Health Collaboration UK: <https://phcuk.org/>

Documentaries (on Netflix): "That Sugar Film," "Fed Up," "Sugar Coated"

	 <b>FOODS TO EAT</b> 	 <b>FOODS TO AVOID</b> 
<b>BEVERAGES</b> (Lots!) 	Water (including carbonated), coffee & tea (no sugar added, cream is allowed). Discuss with your doctor whether you may have small amounts of alcohol occasionally. If so, choose lower carb alcohols such as dry wine, sparkling wine and some liquors.	<u>Pop (regular or diet)</u> , fruit juice, most smoothies (especially purchased), any drinks with added sugar, beer.
<b>MEAT, FISH &amp; POULTRY</b> 	Eat meat and fish moderately (portion = palm of your hand). Choose frozen and whole cuts (incl. fat) to minimize cost. Tofu and tempeh are a good vegetarian option.	Fish sticks, chicken nuggets, anything breaded or processed (e.g., added sugars). Minimize processed vegetarian food.
<b>EGGS</b> 	Eat eggs any way you like!	
<b>VEGETABLES</b> 	Eat lots of vegetables, especially leafy greens and cruciferous vegetables (broccoli, cauliflower, Brussels sprouts), cooked any way you like (e.g., in butter, with cheese). 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 in excess, especially potatoes.
<b>MILK PRODUCTS</b> 	Full-fat plain yogurt (5-10%), cottage cheese, full-fat sour cream, cheese and 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. Olives.	Margarine, vegetable oils (corn, canola, grapeseed, cotton, safflower, sunflower, soybeans), trans fats, hydrogenated oils.
<b>NUTS &amp; SEEDS</b> 	Any nuts (especially walnuts, brazil, macadamia, pecans, hazelnuts). If trying to lose weight, consider limiting serving size. Pumpkin seeds & chia seeds; hemp hearts.	For those aiming for strict carb targets, avoid cashews and pistachios. No nuts or seeds with sugar added.
<b>FRUIT</b> (Nature’s candy) 	Choose whole fruits, especially avocados, peppers, tomatoes, cucumbers. Some blackberries, raspberries, strawberries; small amounts of blueberries.	Fruit juices, most smoothies. Avoid fruit in excess, especially very sweet fruit like bananas, grapes, mangos and any dried or dehydrated fruit (e.g., raisins).
<b>BEANS &amp; LEGUMES</b> 	Edamame beans and lentils are the best choice. If you decide to eat other kinds of beans and legumes, choose small portions of whole beans and legumes. *If you have diabetes, monitor your sugars to see how they are affected.*	Baked beans or canned beans with sugar.

	 <b>FOODS TO EAT</b> 	 <b>FOODS TO AVOID</b> 
<b>BREADS &amp; GRAINS</b> 	Avoid breads and grains as much as possible. If you do choose to eat from this group, always pick small portions of whole grains, like quinoa. Edamame or black bean pasta is a good choice. There are many low carb recipes for breads, muffins, etc. that use almond or coconut flour.	Breakfast cereal, pasta, rice, granola, bread, oatmeal.
<b>SNACKS (may need initially; ideally avoid)</b>	Only snack if you are hungry! Choose fresh vegetables, hard-boiled eggs, cheese, a small serving of nuts or dark chocolate (ideally 85% cocoa or higher).	Anything processed, granola bars, pudding, baked goods, ice cream.
<b>SUGARS &amp; SWEETENERS</b> 	Ideally none; in real life rarely and in small amounts. Banana and other fruit purees can be used occasionally as a sweetener in baking. If you choose to use artificial sweeteners, do so infrequently and in small quantities. *If diabetic, check your blood sugar response when using any artificial sweeteners.	High fructose corn syrup, agave syrup, sugar (many different names), syrups. <u>Ultimately sugar is sugar, whether you call it honey, maple syrup or fruit concentrate.</u> Some artificial sweeteners may impact insulin, worsen cravings and stall weight loss.
<b>PRE- AND PROBIOTICS</b> 	Prebiotics: vegetables (fiber). Probiotics: yogurt, kefir, fermented foods such as sauerkraut, kombucha (unsweetened), kimchi, tempeh.	Sweetened versions of these products.
<b>SALT (sodium)</b> 	When you eat fewer carbohydrates and secrete less insulin, you retain less water and salt. Minimum daily intakes for most: 3-5 g of sodium (roughly 1.5-2 tsp of table salt).	<ul style="list-style-type: none"> <li>• Side effects of a lack of salt: headache, decreased energy, dizziness, discomfort, nausea.</li> <li>• If you have kidney problems or have had heart failure, you will likely need less sodium and must be closely monitored.</li> </ul>

\*Please speak with your doctor before you implement this method of eating. In particular, those on medication for diabetes mellitus or high blood pressure need close monitoring and possible medication adjustments. While whole foods and avoidance of added sugars is recommended for children, they should not be severely limited in carbohydrates from whole foods, with rare physician-guided exceptions. \*

#### References:

1. WHO press release: <http://www.who.int/mediacentre/news/releases/2015/sugar-guideline/en/>
2. Diet Doctor website: <https://www.dietdoctor.com/> Excellent resource (especially the visual low carb guides); also many recipes.