

Carbohydrates and Weight Loss



What is a Carbohydrate?

- ▶ A carbohydrate is known as a macronutrient. It is 1 of 4 total macronutrients.
- ▶ In particular, carbohydrates are utilized in our bodies for **energy**- every cell including brain needs energy, and prefers glucose as the energy source. Glucose is sugar in the body, and is created when carbohydrates are eaten.

▶ Calories of Macronutrients:

- ▶ Carbohydrates = 4 calories per gram
- ▶ Protein = 4 calories per gram
- ▶ Fat = 9 calories per gram
- ▶ Alcohol = 7 calories per gram

*Adding up the macronutrients equals the number of calories: 27 grams of carbs = 108 calories + 27 calories from fat + 4 calories from protein = 140 calories per serving!



Nutrition Facts	
5 servings per container	
Serving size	1 Pouch (37g)
Amount per serving	
Calories	140
	% Daily Value*
Total Fat 3.5g	4%
Saturated Fat 0.5g	3%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 110mg	5%
Total Carbohydrate 27g	10%
Dietary Fiber 2g	9%
Total Sugars 12g	
Includes 12g Added Sugars	24%
Protein 1g	
Vitamin D 0mcg 0%	• Calcium 130mg 10%
Iron 1.8mg 10%	• Potassium 90mg 0%
Vitamin A 10%	• Thiamin 10%
Riboflavin 10%	• Niacin 10%
Vitamin B ₆ 10%	• Zinc 10%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Which Foods Contain Carbohydrates?

- ▶ The following are examples but not limited to:
- ▶ Grains and grain products:
 - ▶ Wheat, Oats, Barley, Rye; Bread, Pasta, Rice
- ▶ Fruits:
 - ▶ Oranges, Grapes, Bananas
- ▶ Starchy Vegetables:
 - ▶ Corn, Peas, Potatoes
- ▶ Non-Starchy Vegetables:
 - ▶ Broccoli, Mushrooms, Spinach
- ▶ Beans and Legumes:
 - ▶ Kidney Beans, Lima Beans
- ▶ Dairy Products:
 - ▶ Milk, Yogurt, Ice Cream
- ▶ Sugars:
 - ▶ Honey, table sugar, Candy



How Many Carbohydrates Should I Eat?

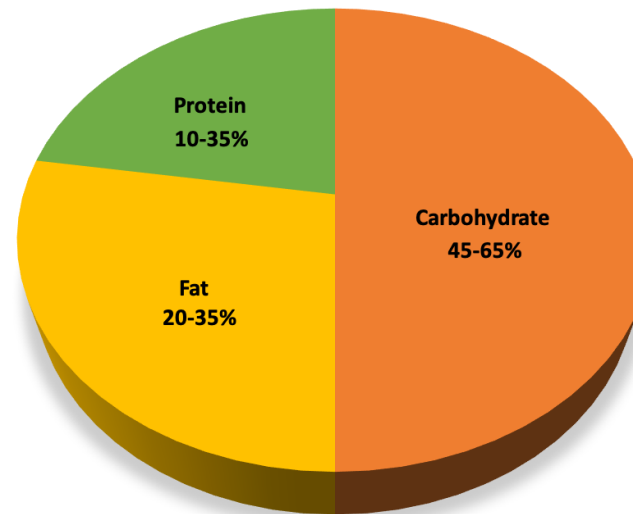
▶ Acceptable Macronutrient Distribution Range (AMDR):

- ▶ Carbohydrates = 45-65% of your daily calories
- ▶ Protein = 10-35% of your daily calories
- ▶ Fat = 20-35% of your daily calories

▶ *Recommended Servings per Day:

- ▶ Milk/Dairy Foods: **2-3 servings**
- ▶ Fruits: **2-3 servings**
- ▶ Vegetables: **2 ½ cups**
- ▶ Grains: **4-5 oz. for Women**
5-6 oz. for Men

*Based on guidelines provided by Weight Loss Solutions patient's for weight loss



Why are Carbs Important in Your Diet?

- ▶ They increase the blood sugar when consumed- this is especially important to note for those with diabetes! But important to consume adequate carbs daily, just need to ensure excessive intake is avoided.
- ▶ Spares protein from being used as an energy source
 - ▶ Protein is necessary for the maintenance, repair, and growth of body tissues
- ▶ Helps prevent fatigue during activity
 - ▶ When carbohydrates haven't been eaten, or eaten in extremely low amounts, fatigue sets in
- ▶ Prevents you from developing a condition called ketosis
 - ▶ Symptoms include weakness, fatigue, nausea, and dehydration. This can lead to muscle breakdown/loss due to the lack of carbs needed for energy production
- ▶ Rich sources of other essential nutrients
 - ▶ B vitamins, Vitamin C, Iron. Potassium, Magnesium, and Selenium

Simple vs. Complex Carbs

▶ Simple Carbs:

SIMPLE CARBS



- Made of 1 or 2 sugar molecules- monosaccharides and disaccharides
- Digest rapidly
- Often low in nutrients (except for fruits, vegetables, and dairy foods)
- Examples of Simple Carbs are:
 - Fruit, some vegetables, dairy foods (High nutritional value)
 - Foods with added sugars: cookies, pies, cakes, candies, sodas, sweet tea, sports drinks (Low nutritional value)

Complex Carbs:

COMPLEX CARBS



- Made of many sugar molecules strung together like a chain called polysaccharides
- Digest slower
- Often rich in other nutrients
- Examples of Complex Carbs are:
 - Whole-grains, oats, rice, barley, rye
 - Non-starchy vegetables
 - Legumes: beans, lentils, and peas

The Benefits of Fiber

- ▶ May lower the risk of chronic disease development such as type 2 diabetes, some cancers, and heart disease
- ▶ Helps keep your gastrointestinal (GI) tract stay healthy, such as preventing diverticulosis
- ▶ Improved blood sugar control
- ▶ Helps lower cholesterol and other blood lipids
- ▶ May enhance weight loss by increasing sensation of fullness- helps you feel full for a longer period of time
- ▶ Helps prevent constipation

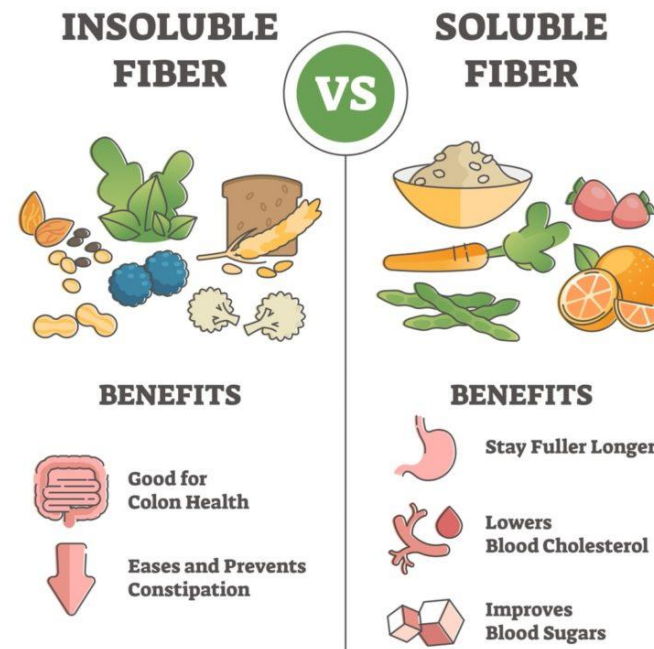


Soluble vs. Insoluble Fiber

Examples of food that contain fiber include fruit, vegetables, nuts, seeds, legumes, beans, and lentils

Insoluble fiber does not dissolve in water, examples include:

- Whole grains
- Nuts
- Seeds
- Green leafy vegetables
- Cauliflower



Soluble fiber is water soluble; examples include:

- Carrots
- Strawberries
- Oatmeal
- Citrus membranes/fruit

*When the consumption of fiber increases, water consumption should also increase. Reason: fiber absorbs water.

Added Sugar

- ▶ Added sugar can be found on the nutrition label of each food product
- ▶ Added sugar found in foods can come from various sources and contain different names. Some of the more common ones are: corn syrup, high fructose corn syrup, honey, brown sugar, cane sugar, molasses, and sugar from fruit concentrate
- ▶ Limit your intake of added sugar:
 - ▶ The American Heart Association (AHA) recommends limiting daily added sugar to:
 - ▶ Men: 9 teaspoons (tsp) per day
 - ▶ Women: 6 teaspoons (tsp) per day

Daily Added Sugar Limit

MEN



WOMEN

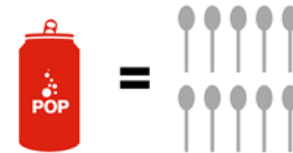


No more than:

9 teaspoons
36 grams
150 calories

6 teaspoons
25 grams
100 calories

How many teaspoons of **added sugar** are in your favourite beverage?



Pop 355ml



100% Orange juice 250ml



Sports drink 400ml



Specialty coffee 360ml

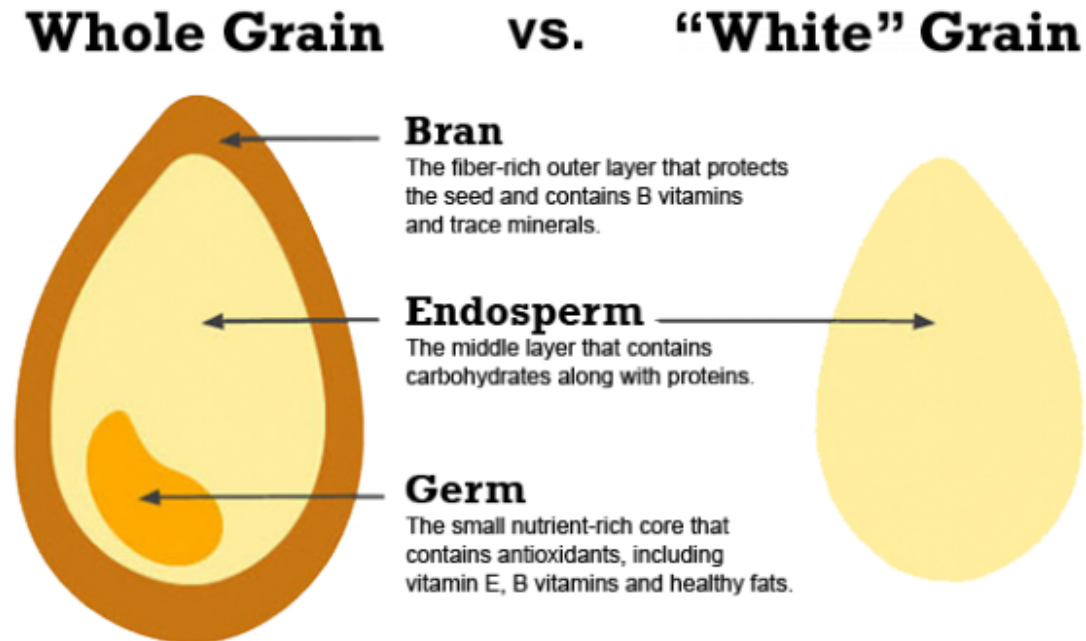
Refined Carbohydrates

- ▶ What are they?
 - ▶ Processed whole grains such as rice, wheat, and flour that have removed the bran and germ from the kernel, leaving only the inner endosperm
 - ▶ Contains very few vitamins, minerals, and fiber
- ▶ Examples:
 - ▶ White breads such as bagels, buns, rolls, and pizza dough
 - ▶ White rice
 - ▶ Pastries such as cookies, cakes, muffins, croissants, waffles, and pancakes



Refined Carbohydrates Continued

- ▶ Refined Carbs are typically made out of the “white” grain, in which the bran and germ are removed. This is why whole grains are the better choice, because they contain fiber, vitamins, and protein.



Consuming Adequate Amounts of Carbohydrates

- ▶ To ensure you consume enough carbohydrates each day, follow the MyPlate guide
 - ▶ Make at least ½ of your grains whole grains such as 100% whole wheat bread. A product is considered a whole grain if the 1st ingredient reads whole or whole grain
 - ▶ Make ½ of your plate fruits and vegetables
 - ▶ Consume low-fat dairy products at meals or as a snack

