



# *All About Carbohydrates*

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HEALTH



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# *What is a Carbohydrate?*

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- ❑ Foods containing carbohydrates are digested and turned to glucose (sugar).
- ❑ Sugar is your body's main source of energy.
- ❑ During digestion, this sugar passes through the walls of the intestine and enters the bloodstream, causing your blood glucose (sugar) to go up after eating.
  - ❑ For this reason, carbohydrates should be spread evenly throughout the day.
  - ❑ **This does not mean carbohydrates are bad! They contain fiber and important vitamins and minerals, and are your main source of energy!**



# *Carbs: Good or Bad?*

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- Health Benefits:
  - Carbs provide your body with energy
  - Carbs are a source of fiber
  - Carbs are a source of vitamins and minerals
- Why do carbs have such a bad reputation then?
  - Refined carbohydrates
  - Added sugars
  - Portion distortion

# *Carbs are Fuel!*

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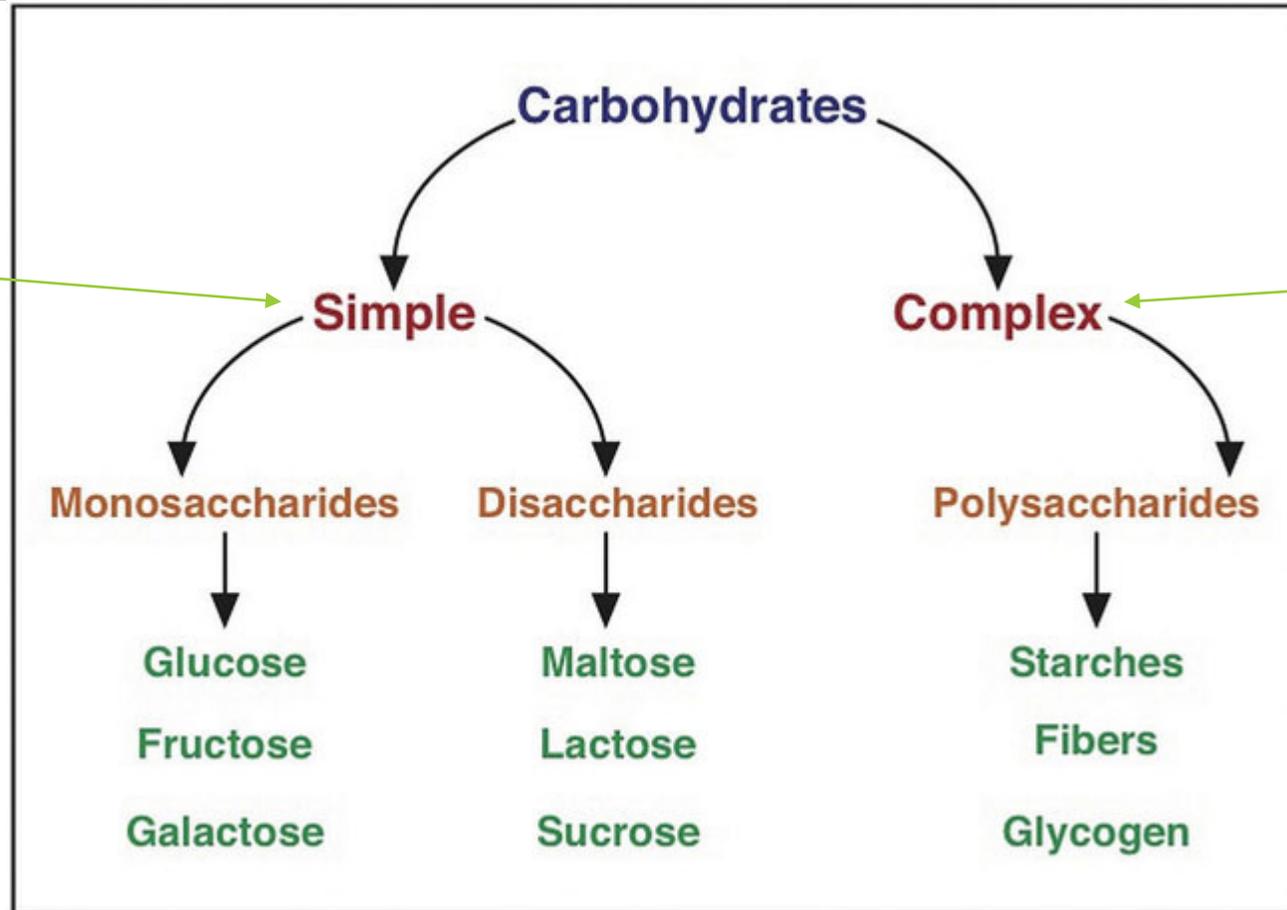
- Think of carbohydrates like gasoline.
- When your gas tank is low, you add gas to the tank and your fuel gauge begins to rise.
- After you have finished fueling and then begin driving, your fuel gauge begins to fall as your engine uses the gas to power your car.
- This is how carbohydrates work too!
- What happens to your car if you run out of gasoline?

# Sources of Carbohydrate

- Fruits
- Vegetables
  - Starchy and Non-starchy
- Dairy
- Grains
- Nuts, seeds
- Beans
- Sweets, sodas



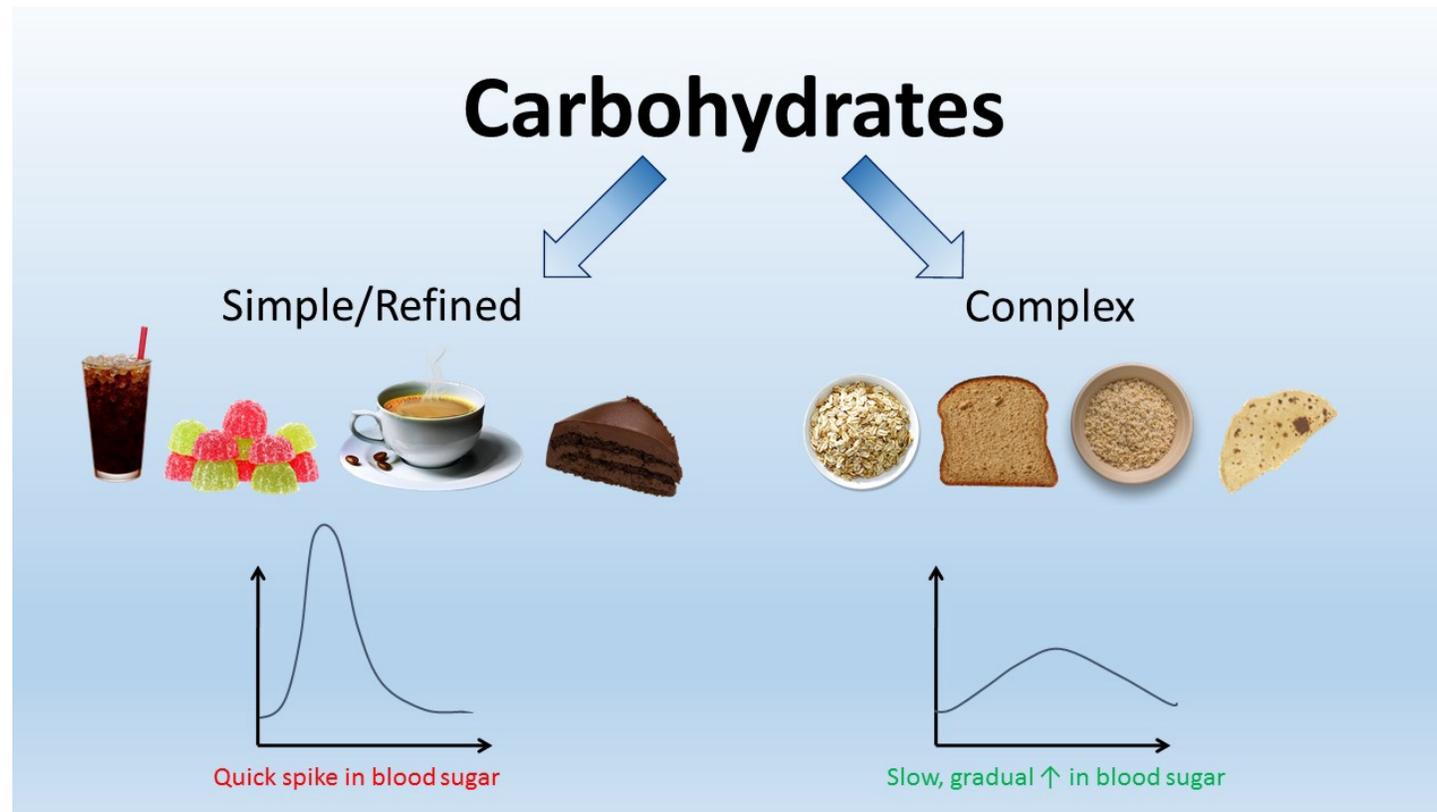
# Types of Carbohydrate



Little or no digestion is required, so blood sugar increases quickly.

Digestion is required, so blood sugar rises more slowly.

# Simple vs Complex Carbohydrate



# *Whole food carbohydrates!*

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- Choose carbohydrates rich in fiber
  - These carbs are absorbed slowly into our systems
  - Avoid spikes in blood sugar levels
  - Feel full longer
  - Examples: whole grains, vegetables, fruits, and beans
- Eat fewer refined and processed carbohydrates
  - The refining process strips away beneficial fiber
  - Examples: white bread and white rice

# *Whole food carbohydrates!*

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- ❑ Fiber is the part in plant foods that humans can't digest
- ❑ Even though fiber isn't absorbed, it does all sorts of great stuff for our bodies
  - Adds bulk to our bowel movements, reducing constipation
  - Soluble fiber may help lower your cholesterol
- ❑ Fiber slows down the absorption of other nutrients eaten at the same meal, including carbohydrates
  - This may help prevent peaks and valleys in your blood sugar levels, reducing your risk for type 2 diabetes.

## 6 Easy Steps to Create Your Plate!

- Using your dinner plate, visualize a line down the middle of the plate. Then on one side, cut it again so you will have 3 sections on your plate.
- Fill the largest section with non-starchy vegetables (**listed above**) such as:
  - Carrots, lettuce, green beans, broccoli, cauliflower, tomatoes, cucumber, beets, or pepper
- Now in one of the small sections, put starchy foods (**see carbohydrate list**) such as:
  - whole grain breads, such as whole wheat or rye
  - dry or cooked cereal such as unsweetened ready to eat cereal, oatmeal, or cream of wheat
  - rice, pasta, tortillas
  - cooked beans and peas, such as pinto beans or black-eyed peas
  - potatoes, green peas, corn, lima beans, sweet potatoes, winter squash
  - low-fat crackers and snack chips, pretzels, and fat-free popcorn
- In the other small section, put your meat/meat substitutes (**see non-carbohydrate food list**) such as:
  - chicken or turkey without the skin
  - fish such as tuna, salmon, cod, or catfish
  - other seafood such as shrimp, clams, oysters, crab, or mussels
  - lean cuts of beef and pork such as sirloin or pork loin
  - tofu, eggs, low-fat cheese
- Add an 8 oz glass of non-fat or low-fat milk. If you don't drink milk, you can add another small serving of carb such as a 6 oz. container of light yogurt or a small roll.
- And a piece of fruit or a 1/2 cup fruit salad and you have your meal planned. Examples are fresh, frozen, or canned in juice or frozen in light syrup or fresh fruit.

## Know your nutrients and create your plate

nonstarchy vegetable choice = grams of carbs

1 meat/protein choice = 0 grams of carbs

**Nonstarchy Vegetables**  
Raw vegetables, 1 cup  
Cooked vegetables, ½ cup

**Meat/Protein**  
Examples:  
Chicken, 3 ounces  
Fish, 3 ounces  
Beef, 3 ounces

Size of a deck of cards

**Starch/Grains**  
Examples:  
Pasta, ½ cup  
Rice, ½ cup  
Potato, boiled, ½ cup  
Bread, 1 slice (1 ounce)  
Corn, ½ cup

Size of a computer mouse

1 starch choice = 15 grams of carbs

Each carb choice contains 15 grams of carbs.  
I need \_\_\_\_\_ carb choices per meal.

**Milk**  
Examples:  
Milk, 1 cup  
Plain yogurt, 1 cup

1 dairy choice = 12 grams of carbs

**Fruit**  
Examples:  
Orange, small  
Blueberries, ¾ cup  
Watermelon, 1 slice

Size of a tennis ball

1 fruit choice = 15 grams of carbs

# *How much carbohydrate per meal?*

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## ☐ Calculate calories!

- You can use the wheel given a few months ago!
- Calorie Calculator – Mifflin St. Jeor
  - ☐ <https://www.calculator.net/calorie-calculator.html>
- Calories per kilogram body weight

☐  $\text{Calories} \times 0.5$  (percentage calories from carbohydrates) =  
Daily calories from carbohydrates

☐  $\text{Calories from carbs} / 4$  (# calories per gram of carb) = total  
gram carbohydrates per day

☐  $\text{Gram carbs per day} / 3 = \text{grams of carbohydrates per meal}$

# *How much carbohydrate per meal?*

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- ❑ Calories per kilogram (kg) body weight
  - ❑ First step! Convert pounds to kg
    - ❑ \_\_\_\_\_ (weight in pounds) / 2.2 = \_\_\_\_\_ (weight in kg)
  - ❑ Second step! Multiply by calorie factor
    - ❑ 20-22 calories/kg for weight loss
    - ❑ 25 calories/kg for weight maintenance
    - ❑ 30 calories/kg for weight gain
  - ❑ \_\_\_\_\_ (weight in kg) x \_\_\_\_\_ (calorie factor) = \_\_\_\_\_ (daily calories)

# *How much carbohydrate per meal?*

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- \_\_\_\_\_ (Daily calories) x 0.5 = \_\_\_\_\_ (Daily calories from carbohydrates)
- \_\_\_\_\_ (calories from carbs) / 4 = \_\_\_\_\_ (daily grams of carbohydrate)
- \_\_\_\_\_ (Daily grams of carb) / 3 = \_\_\_\_\_ (carbohydrates per meal)
  
- FINALLY WE DID IT!!!!!!!!!!!!

*Thank you!*

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By building caring relationships with those we serve,  
we guide the journey to health and wellness.