Carbohydrate is a broad term that covers the sugar and starches found in our everyday foods such as pasta, breads, cereals, milk, soft drinks, and baked goods, just to name a few. There are many different sugars and starches; simple carbohydrates are the monosaccharides and disaccharides while complex carbohydrates are the starches. Carbohydrates is the fuel source our bodies prefer, being burned up first before fat and protein. Because of this, the majority of our calories should come from carbohydrates.

How much should we eat?

For the majority of people 55-65% of our total food should come from carbohydrates, with the majority of our choices coming from complex carbohydrates. It is easy to figure out the amount of grams you need, just follow these steps:

1. Tally up the amount of calories you normally eat for the day.
2. Multiply by .55 or .65 depending on how much you want.
3. Divide by 4 (this is to convert the sugar into grams as 4 calories of carbs = 1 gram)

Example:

For your calories for the day keep in mind whether you want to gain, lose, or maintain your weight and adjust your calories to do this. However, no matter what calorie level you choose the percentage will stay the same.

Simple Carbohydrates

There are 3 simple sugars that make up simple carbohydrates: glucose, fructose, and galactose. Glucose is the form of sugar that our bodies use for energy while fructose is the sugar found in fruit; galactose makes up other sugars and is generally not found on its own. Disaccharides are compounds made up of these sugars but are still fairly basic in structure. They are sucrose, lactose, and maltose.

Sucrose = glucose + fructose
Lactose = galactose + glucose
Maltose = glucose + glucose

Sucrose is commonly known as table sugar and lactose is found in milk. Maltose is used in a variety of products. Many of the sweeteners that we know (and don’t know) are made from these compounds:

Brown sugar
Confectioner’s sugar
Corn syrup
Dextrin
Fruit juice concentrate
Honey
Invert sugar
Maple syrup
Raw sugar
Cane sugar
Crystallized cane sugar
Evaporated cane juice
High-fructose corn syrup
Malt
Molasses
Turbinado sugar

All of the sweeteners listed have about the same amount of calories, 15, per teaspoon. This makes all sugar equal to your body as it has to be converted into glucose to be used for energy.
**Complex Carbohydrates**

These are the starches and are complex because they have structures composed of many sugar units in branched forms. They are “good” as they are not “empty calories” because they are usually accompanied by the vitamins and minerals our bodies need every day. Also, complex carbohydrates take longer to digest in the body creating a slow release of sugar in our blood. This is helpful in that it doesn't put as much stress on our body to absorb the sugar in our blood as simple carbohydrates do and they give us more prolonged fuel keeping us feeling full longer. These “good” starches are found in whole foods such as fruit, vegetables, legumes, beans, seeds, and grains.

**What are Artificial Sugars?**

With the increase in Diabetes over the past 30 or 40 years the use of artificial sugars in products has increased as an alternative sweetener. This has opened up the different foods that are possible to eat for people with this condition and also started being used by non-diabetic people to reduce calorie intake.

There are 3 main types known to people: [saccharin](https://www.sweetandlow.org) (Sweet & Low), [aspartame](https://www.nutrasweet.com) (Nutrasweet an Equal), and [Splenda](https://www.splenda.com). New sweeteners are coming out every year. Periodically, questions about the safety of using artificial sweeteners have been raised, especially with the question of whether or not they cause cancer. After numerous studies done on saccharin and aspartame it was found that while high doses fed to rats caused bladder tumors, this is not the case in humans due to anatomical differences. For more information on the studies done on sweeteners see the [National Cancer Institute link](https://www.cancer.gov).