

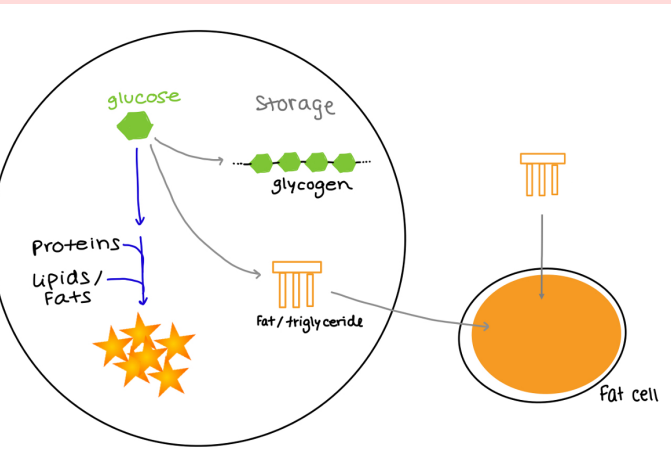


Nutrients and Digestion

By Latinas Contra Cancer

Disgestion

Our food passes from our mouth to our stomach and small intestine where the food is broken down into the smallest possible molecules.



- The cells in our intestines absorb the small molecules from our food and pass them into our blood. Once in our blood, food can be distributed to all of our cells.
- Our cells use our food to convert it into energy
- When there is too much energy, the cells begin to store the extra energy from the food into fat molecules. Those fat molecules are transported to fat cells that are found under our skin and in our organs.

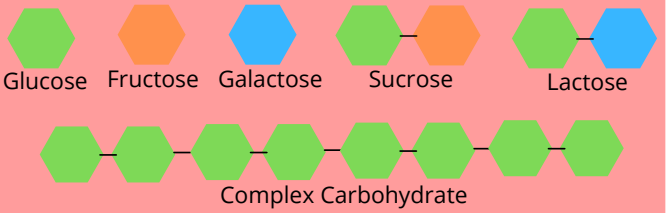
- Therefore, if we constantly eat more calories than we use, that extra energy will be stored in our fat cells and thus we will gain weight.

Nutrients

Remember that the 6 essential nutrients are carbohydrates, proteins, fats, vitamins, minerals, and water.

Carbohydrates

- Carbohydrates are also called "sugars"
- Simple sugars - the smallest units of carbohydrates
 - Glucose - the sugar that our body uses for energy
 - Fructose - the sugar in fruit that makes it sweet; when we eat fructose in excess our body converts it directly into fat
 - Galactose
 - Sucrose - what we know as table sugar; it is made of one molecule of glucose and one molecule of fructose. Since it is made of fructose, if it is eaten in excess, our body also converts it into fat.
 - Lactose - the sugar in milk
- Complex sugars - the carbohydrates in bread and plants. These are made of various simple sugars linked together into long chains.

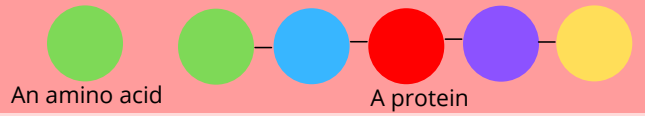


Fructose

- Because fructose is the sweetest sugar, processed food manufacturers use fructose and sucrose a lot. When you see in a product the phrase "added sugar," this almost always refers to some form of fructose or sucrose.
- Because fructose turns into fat when eaten excessively, eating processed products in excess can make us gain weight since they have a lot of fructose
- See our "Nutrients and Digestion" video at latinascancer.org/health-education for a list of ingredients in processed products that signify fructose and / or sucrose.

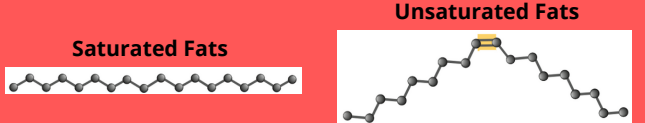
Proteins

- Proteins are the workers of our cells and we need them to live
- Proteins are made of several amino acids linked in a chain
 - There are 20 types of amino acids in the world. Our body can produce some alone
 - **Essential amino acids** are amino acids that our body cannot produce alone and that we have to obtain through food.



Fats / Lipids

- Lipids are molecules that cannot interact with water. Lipids are stored in our body inside fat cells that are found under our skin or in our organs.
- There are two types of fats that we find in our food:
 - **Saturated**: these fats are straight. Since they are straight, these molecules can stack together very closely and this makes saturated fats solid at room temperature.
 - Examples of saturated fat: butter, meat fat.
 - Excess saturated fats are bad for our health. The fact that they are solid at room temperature means that they can clog our blood vessels. This causes heart disease.
 - **Unsaturated** - Unsaturated fats are bent fats. Because they are bent, the fat molecules cannot stick together as well so they are liquid at room temperature, like olive oil.
 - Since they are not solid, these fats are better for our health. There is also evidence that these fats reduce inflammation and heart disease.



Vitamins and Minerals

- Vitamins and minerals are small molecules that are necessary for the functions of our organs. Most are found in plant products: fruits, vegetables, and grains. To find out how much of each mineral / vitamin they should be consuming and examples of foods where they can be found, search the internet for "sources of xxx"

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| <p><u>Essential Vitamins:</u></p> <ul style="list-style-type: none"> • Vitamin A • Vitamin D • Vitamin E • Vitamin K • Vitamins B (B1, B2, B3, B5, B12, B6, B7, Biotin, y Folate) • Vitamin C | <p><u>Essential Minerals:</u></p> <ul style="list-style-type: none"> • Calcium • Phosphorus • Potassium • Sodium • Chlorine • Magnesium • Iron, zinc, copper, manganese, iodine, selenium |
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