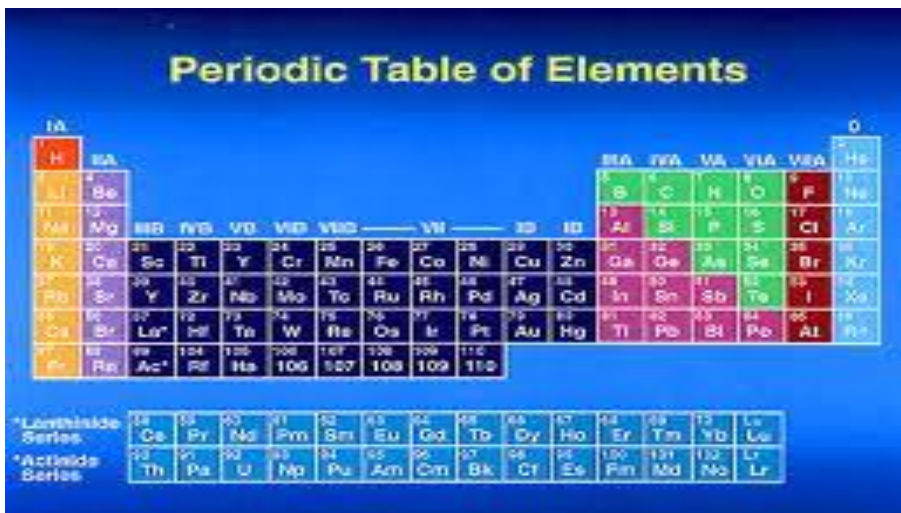


3-3Chemical Compounds in Cells

In this **PPT** I will **define** **elements** and **compounds** and the functions of carbohydrates, lipids, proteins, and nucleic acids.

In this PPT I will define elements and compounds and the functions of carbohydrates, lipids, proteins, and nucleic acids.

1. An element is any substance that cannot be broken down into simpler substances. Think oxygen.
2. A compound is a combination of 2 or more elements. Think water.
3. Most chemical reactions in the cell require water.



Periodic Table of Elements

The image shows a standard periodic table of elements. The title "Periodic Table of Elements" is at the top. The table is color-coded by groups: IA (red), IIA (orange), IIIA (yellow), IVA (green), VA (light green), VIA (blue), VIIA (dark blue), and VIII (purple). The elements are arranged in rows and columns, with atomic numbers and symbols. The Lanthanide Series and Actinide Series are shown at the bottom.

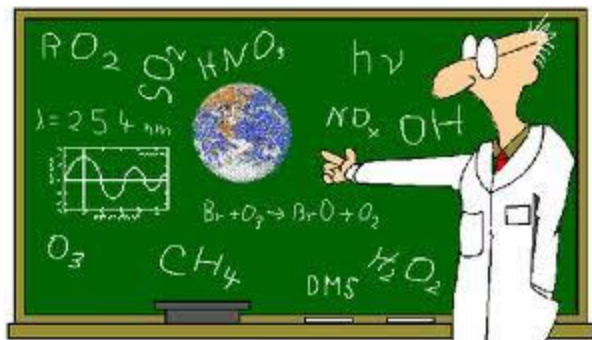
Lanthanide Series:
Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu

Actinide Series:
Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr

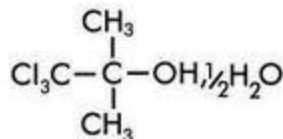
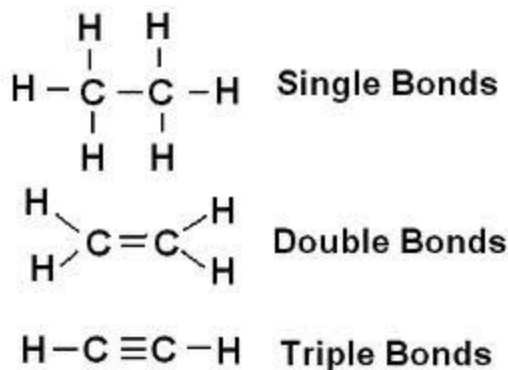
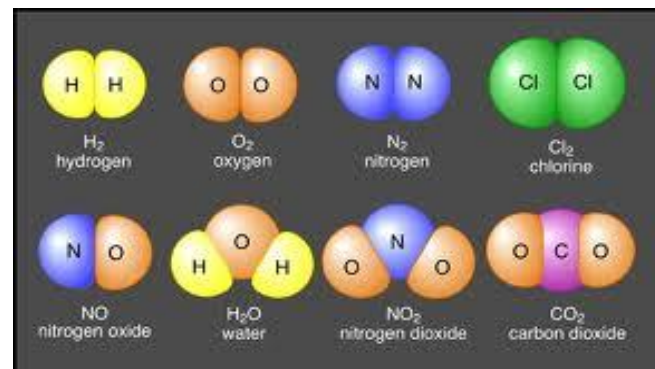
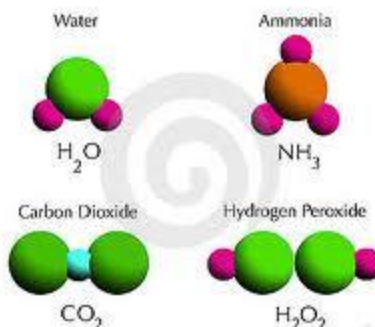


In this PPT I will define elements and compounds and the functions of carbohydrates, lipids, proteins, and nucleic acids.

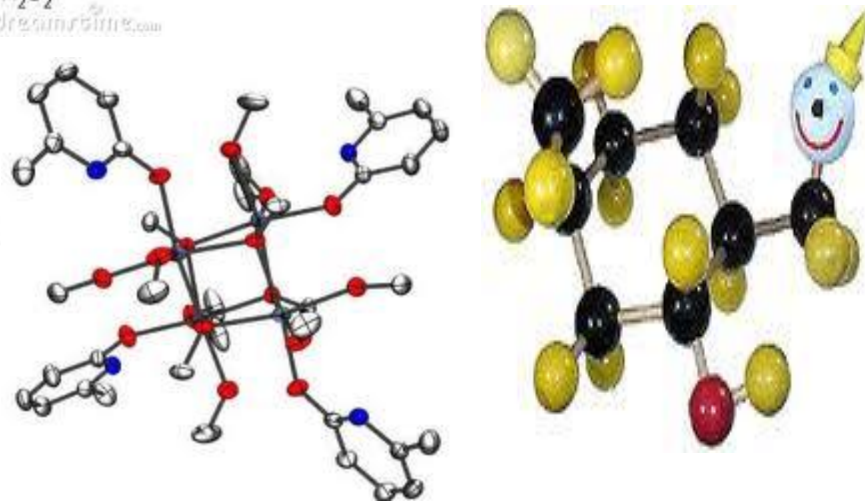
Images of compounds



Common Chemical Compounds



MF : C4H7Cl3O, 1/2H2O
MW : 166.48
CAS NO : 6001-64-6

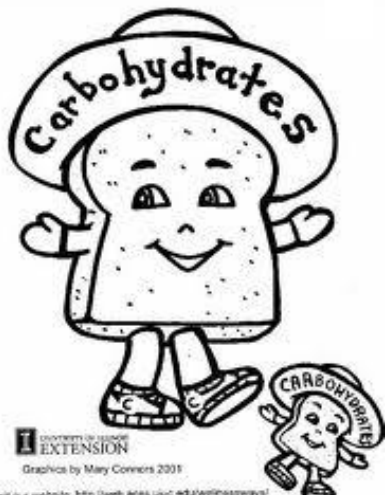


In this PPT I will define elements and compounds and the functions of carbohydrates, lipids, proteins, and nucleic acids.

4. Inorganic compounds don't contain the element carbon, while organic compounds do **contain carbon**.
5. The organic compounds are: carbohydrates, lipids, proteins, and nucleic acids.
6. Carbohydrates (CHO) are loaded with energy your body may use. Examples of CHO are sugars and starches.

In this PPT I will define elements and compounds and the functions of carbohydrates, lipids, proteins, and nucleic acids.

Carbohydrate images



Simple carbohydrates

Simple carbohydrates are found in foods such as fruits, milk, and vegetables

Cake, candy, and other refined sugar products are simple sugars which also provide energy but lack vitamins, minerals, and fiber



ADAM

Complex carbohydrates

Complex carbohydrates provide vitamins, minerals, and fiber

Foods such as breads, legumes, rice, pasta, and starchy vegetables contain complex carbohydrates



ADAM



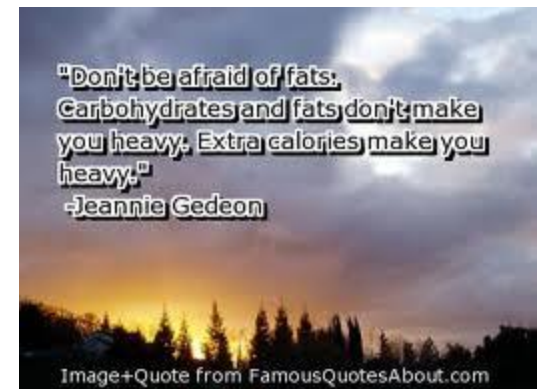
"You have to realise that as a potato you are a very complex carbohydrate."

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❑ Carbohydrate images

A close-up of a nutrition label. The "Total Carbohydrate" row is highlighted in blue and shows "1g". Other visible values include "Calories 5", "Total Fat 0g", "Sodium 170mg", and "Protein 0g".

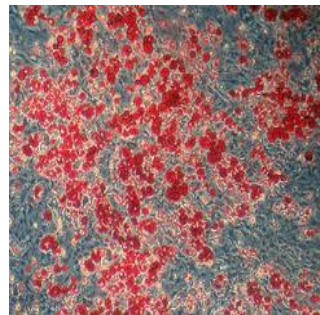
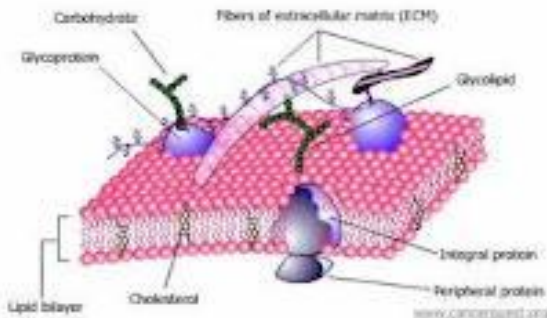
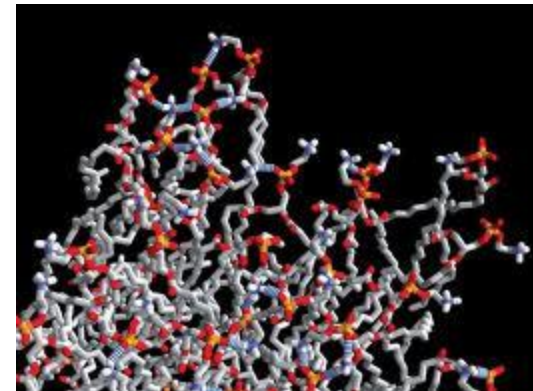
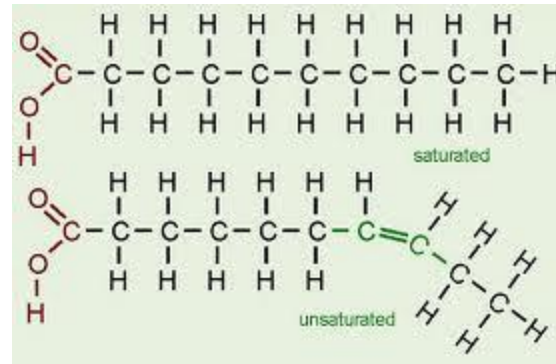
	% Daily Value
Calories 5	0%
Total Fat 0g	0%
Sodium 170mg	7%
Total Carbohydrate 1g	0%
Protein 0g	0%



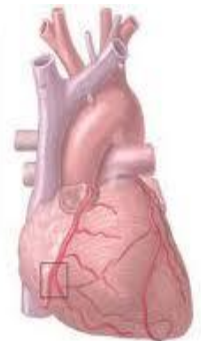
In this PPT I will define elements and compounds and the functions of carbohydrates, lipids, proteins, and nucleic acids.

7. The second organic compound are lipids. These are fats, oils, and waxes.

Lipids



Blockage in right coronary artery



In this PPT I will define elements and compounds and the functions of carbohydrates, lipids, proteins, and nucleic acids.

8. Proteins are large molecules found in fish, eggs, meat and nuts.

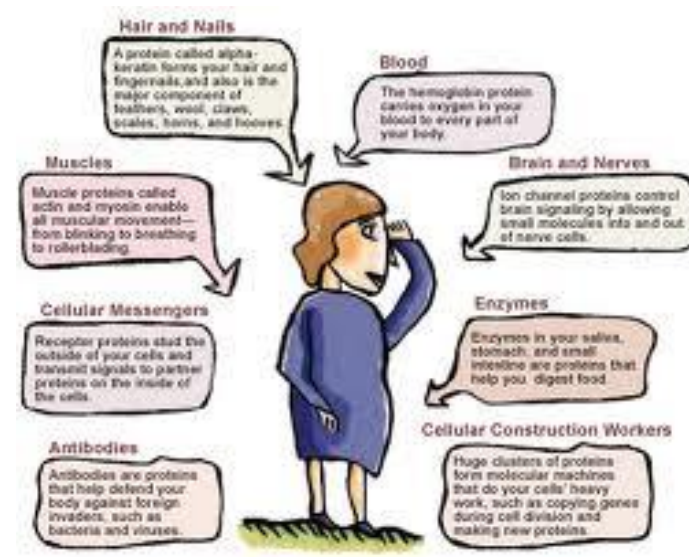
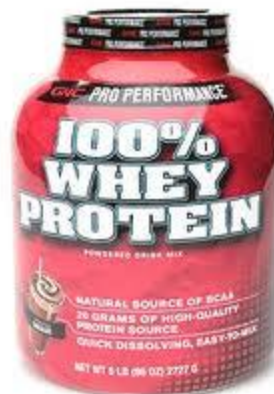
9. Proteins are made of smaller molecules called amino acids.

10. One type of protein is called an enzyme that speeds up chemical reactions in the cell.

Proteins

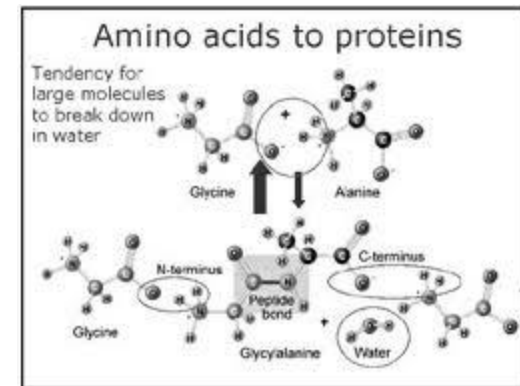
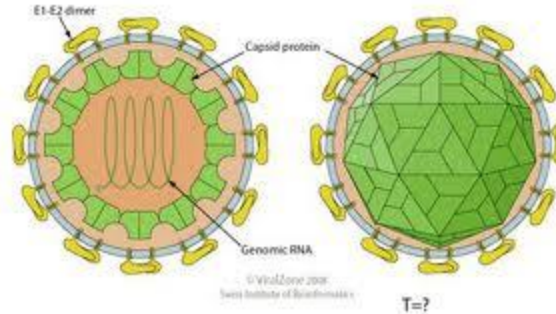
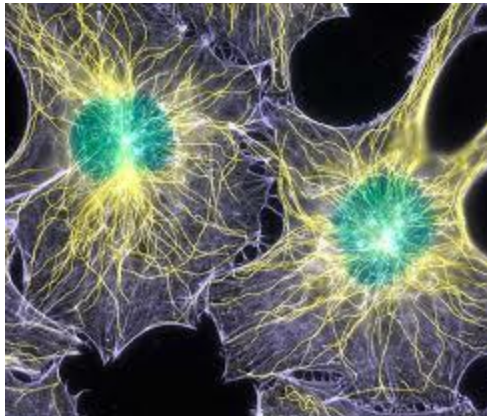


ADAM

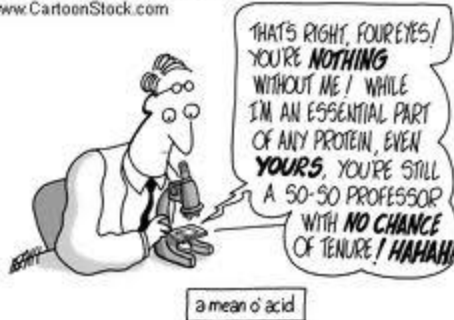


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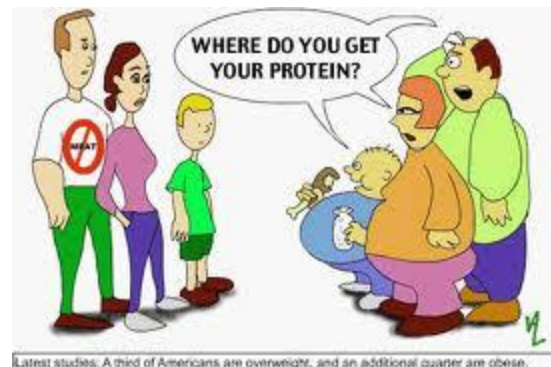
Protein Images



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search ID: mhen140



Latest studies: A third of Americans are overweight, and an additional quarter are obese.

In this PPT I will define elements and compounds and the functions of carbohydrates, lipids, proteins, and nucleic acids.

11. The final organic compound are called nucleic acids.

12. This is the material that allows the nucleus to control the cell.

13. There are two kinds of nucleic acids: DNA and RNA.

