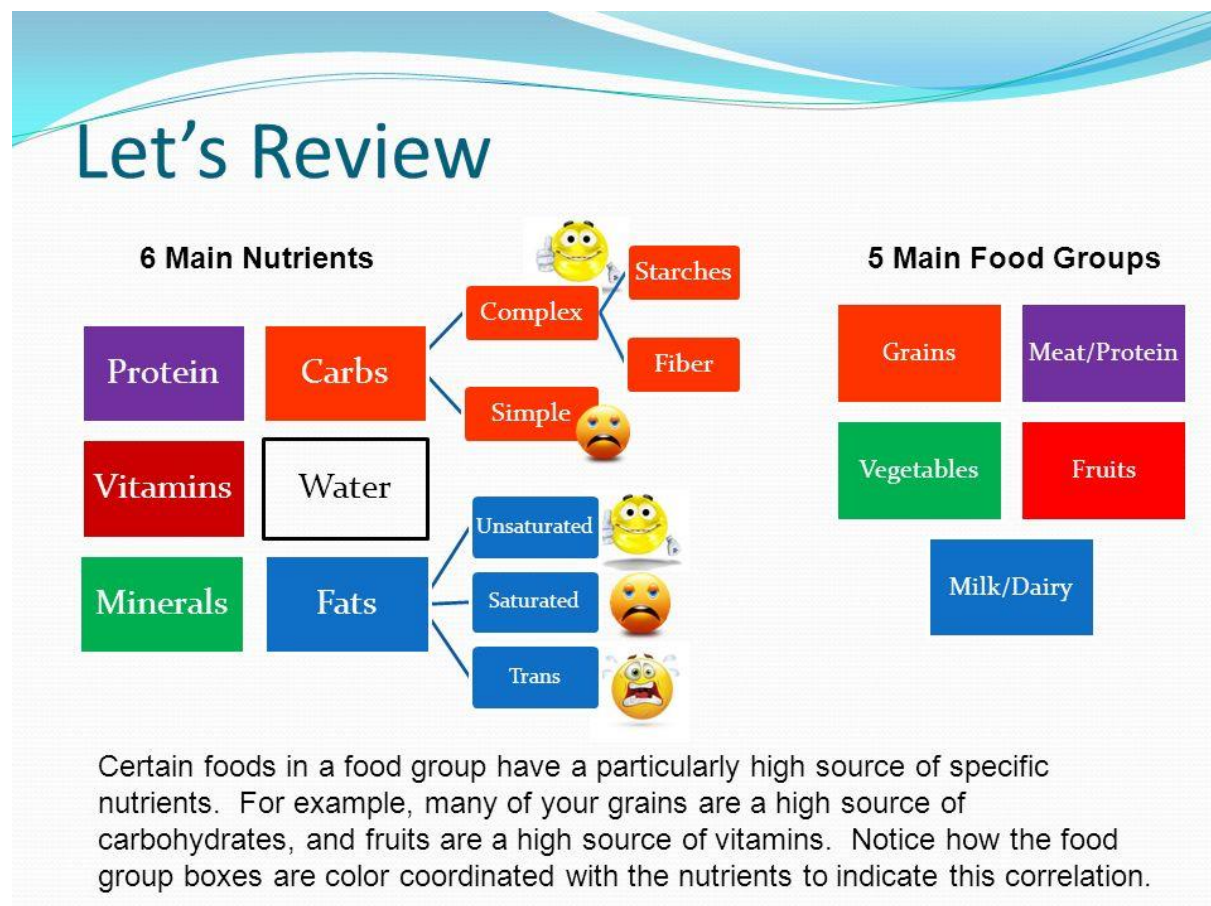


NUTRIENTS

Food provides nutrients to help the body perform properly. It is important to enjoy a well-balanced, healthy diet by consuming a variety of foods to provide all the nutrients our bodies need.

Some nutrients are water soluble, meaning that they dissolve in aqueous solutions. Other nutrients are fat soluble, meaning that they dissolve in fatty tissues and oils.



PROTEIN

Protein is needed for growth and development. Requirements are higher for babies and children than for adults.

- Protein is made up of amino acids.
- Some amino acids cannot be made by the body and must be supplied by the diet, known as essential amino acids.
- Protein foods can be provided from both animal and plant origin.
- Animal sources of protein tend to provide all the essential amino acids, known as a 'complete' protein.
- Plant sources of protein tend to provide different essential amino acids, so by eating a wide variety of these foods, you can get all the amino acids you need to make up a 'complete' protein from a vegetarian diet.

CARBOHYDRATES (CARBS)

Most of the energy (calories) we need should come from carbohydrates. Carbs, along with fat and protein, provide energy so we can perform our daily activities. Carbs are split into two types:

Simple vs Complex Carbs

- Simple Carbohydrates:
 - made of one or two sugar molecules
 - fast burning
 - digested quickly; provide immediate bursts of energy
 - E.g.: table sugar, honey, soft drinks
- Complex Carbs:
 - many sugar molecules chemically bound together
 - slow burning
 - digested slowly; provide long lasting, stable energy
 - E.g.: oatmeal, whole grain bread, cheerios



FIBRE

Dietary fibre is a term that is used for plant-based carbohydrates that, unlike other carbohydrates (such as sugars and starch), are not digested in the small intestine, so fibre reaches the large intestine (helps with the digestion).

There are two main groups of fibre: soluble and insoluble. Soluble fibre reduces cholesterol in the blood and controls blood sugar levels. Insoluble fibre helps keep your digestive tract in good working order. They work in different ways so it is important to include both types in your diet. What is important to remember is that fibre-rich foods typically contain both types of fibre.

VITAMINS

Vitamins are essential for our health (the name comes from “vital”). Many different vitamins are present in food. However, they are required in small amounts to maintain good health. Most of us should meet our vitamin requirements by eating a healthy, well balanced diet. Certain groups, however, for example the sick, elderly, post-menopausal women, pregnant women or individuals following restrictive diets, may need to take an additional vitamin supplement.

Hypervitaminosis is a condition of abnormally high storage levels of vitamins, which can lead to toxic symptoms. Toxic levels of vitamins are generally a result of high supplement intake or a large intake of highly fortified foods and not from natural food.

Vitamins have diverse functions in the body:

- Hormone-like functions as regulators of mineral metabolism (vitamin D)
- Regulators of cell and tissue growth and development (vitamin A)
- Antioxidants (vitamin E, C)
- Help to enzymes (B complex)

FAT

It provides energy, absorbs certain nutrients and maintains your core body temperature. You need to consume fat every day to support these functions, but some types of fat are better for you than others. While carbohydrates are the main source of energy in your body, your system turns to fat as a backup energy source when carbohydrates are not available.

Fatty acids are the building blocks of fat and there are three different types: saturated fatty acids, monounsaturated fatty acids and polyunsaturated fatty acids.

While monounsaturated and polyunsaturated fats can lower blood cholesterol and help reduce the risk of heart disease, saturated fats can raise blood cholesterol and increase the risk of heart disease.

There is a special sub group of polyunsaturated fatty acids known as Essential Fatty Acids (EFAs). They are called 'essential' as they are not easily manufactured by the body and must be provided by food. They are split into two groups: Omega 3 and Omega 6.

Trans fatty acids are a form of fat that the body does not actually need and only have adverse effects.

MINERALS

Along with vitamins, minerals are vital nutrients found in food, which help the body to convert food into energy, control body fluids and build strong bones and teeth.

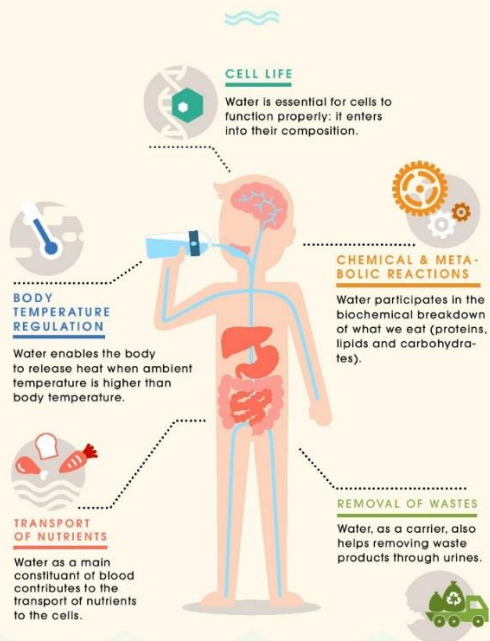
Minerals are found in a wide variety of foods including fruit, vegetables, cereals, milk and dairy products, meat and fish. There are two types of minerals your body needs to stay healthy: major and trace minerals. As their names suggest, these kinds of minerals are divided by need. Your body needs large amounts of major minerals and only very small amounts of trace minerals for normal function.

- Calcium
- Magnesium
- Potassium
- Sodium
- Phosphorous
- Iron (trace mineral)...

WATER

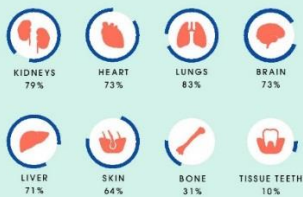
**FUNCTIONS OF WATER
IN HUMAN BODY**

The water you consume through food and drinks follows a very precise route to arrive in your cells, of which it is a vital constituent.



VITAL FACTS

CERTAIN ORGANS AND BODY PARTS ARE PARTICULARLY RICH IN WATER



**1.5
L/DAY**

For a healthy sedentary adult living in a temperate climate

DID YOU KNOW ?

00 CALORIES
Pure water contains no calories and no sugar. That is why drinking water should be the choice for a healthier hydration

42 LITERS
The water in the body's cell represents approximately 42 liters of water for a man weighing 70kg (134 pounds)



The Healthy Hydration Company™

EXERCISES

1. Answer the questions.

1. How can we provide all the nutrients our body needs?

2. Explain the term essential amino acids.

3. What is the difference between simple and complex carbs?

4. Explain the terms soluble and insoluble fibre.

5. List 3 different ways of vitamin intake.

6. Vitamins are needed in small amounts - what problems may occur?

7. Explain the term essential fatty acids.

8. Explain the terms *major and trace minerals* and name them.

9. Explain the importance of water in human body.

2. Complete the chart.

Nutrient	Function(s)
protein	
vitamins	
minerals	
carbohydrates	
fats	
water	

Viri (pridobljeno 22.2.2018):

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