

NUTRITION AND HEALTHY FOOD

1. INTRODUCTION.

Nutrition is the study of food at work in our bodies, our source for energy, and the medium for which our nutrients can function. Think of nutrition as the building blocks of life.

Good nutrition means getting the right amount of nutrients from healthy foods in the right combinations. Having nutrition knowledge and making smart choices about the foods you eat can and will help you achieve optimum health over your lifetime, and be a key to avoiding obesity, illness, and many of today's most prevalent chronic diseases.

2. MACRONUTRIENTS.

2.1. Carbohydrates.

Carbohydrates give us 4 kcal/gr.

We can divide Carbohydrates in two groups:

- Slowly digested carbohydrates, such as rice and pasta.
- Quickly digested carbohydrates, such as sugar or sweets. They are not healthy carbohydrates.

Its main function is to provide energy for the body. It is the main energy source.

Where can we find Carbohydrates? Pasta, rice, fruits, cereals, etc.

2.2. Proteins.

Proteins give us 4kcal/gr, as Carbohydrates.

Proteins are used to the growth and repair of the body tissue, they produce enzymes, hormones and blood cells. Besides, proteins provide energy as well.

Where can we find Proteins? Fish, meat, eggs, some vegetables, organs, seeds, etc.

2.3. Fats.

Fats give us 9 kcal/gr.

We can divide fats in three big groups:

- Saturated fats: for example, meats.
- Unsaturated fats: for example, oil. The best fats.

- Trans fats: for example, all the products of the industrial baking. they are the worst. We must avoid eating them.

Fats have multiple functions: they are a very important energy source for us, recover and soften main vital organs and provide heat thanks to the fat layer.

Where can we find healthy fat? Milk, cheese, oil, olive, nuts, avocado, fish and meat, etc.

3. MICRONUTRIENTS.

3.1. Minerals.

Minerals are inorganic substances that they don't provide energy. They are divided in three groups:

- Macro elements (the body needs them in a huge amount)
- Micro elements (the body needs them but not a big amount)
- Trace element (the body needs them in a few amount).

Some of their functions are:

- Make body tissue.
- Take part in metabolic processes

3.2. Vitamins.

Vitamins are organic substances that they don't provide energy. We can divide vitamins in two groups:

- Fat-soluble vitamin: like vitamin A, B, E and K.
- Water-soluble vitamin: like vitamin C and complex B.

Some of their functions are:

- Make body tissue.
- Take part in metabolic processes.
- They
- They are necessary to the energy release.

3.3. Where can we find minerals and vitamins?

Vegetables and fruits provide us highly amount of minerals and vitamins. In fact, vegetables are our trusted friends.

4. THE METABOLISM: BASAL AND ENERGY METABOLISM.

Metabolism could be described as the set of chemical changes of the nutrients to produce energy, make new body structures and obtain others necessary materials for the life.

4.1. Basal Metabolism.

Basal Metabolism is the minimum energy you need to keep the vital signs, like the brain activity, beats, the breath and others functions. This means 70% of the **Total Energy Expenditure**.

$$BM = 24 \text{ kcal/kg}$$

4.2. Energy Metabolism.

Energy Metabolism is the expenditure when we are doing any activity. This depend on the intensity and the time of the activity. Next table you can see many examples.

Normal activity	Kcal/h	Sport	Kcal/h	Professional	Kcal/h
Eat	30	Dance	200	Office worker	60
Watch TV	8	Walk	150	Electrician	150
Study, write	30	Walk fast	300	Plumber	150
Households tasks	80	Run	600	Carpenter	250
Drive	70	Swim	500	Builder	250
Play a music instrument	50	Ski	400	Fisher	300
Go to classes	200	Bike	400	Woodcutter	400
		Play tennis	400	Miner	400
		Football, basketball	500		

4.3. Total Expenditure Metabolism.

Total Expenditure Metabolism is the add of the Basal Metabolism and the Energy Metabolism.

$$TEM = BM + EM.$$

ACTIVITY 1: Calculate your own Total Expenditure Metabolism using this information.

5. THE HEALTHY FOOD.

5.1. Our trusted friends and our enemies.

On the whole, we have known that people are worrying about what they have to eat to be more health and to avoid different illnesses. Taking everything into consideration, people must know which foods are healthy and which are unhealthy.

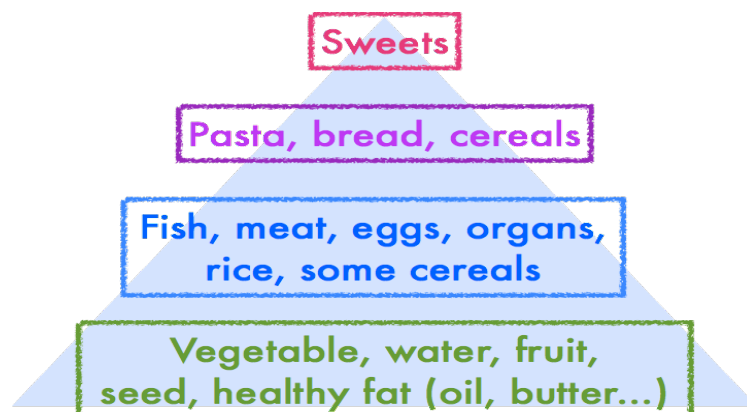
Proteins and fats are highly necessary for our health. The next list is consider a healthy food list, and you have to follow to get any of your aim, either getting fit or loosing weigh.

- Daily: vegetables and fruits, water, seeds and healthy fat (oil, butter, nuts, avocado, milk, etc).
- Three - five days a week: fish, eggs, organs, some integral cereals, meats, honey
- Once or twice: pasta.

On the other hand, we have to avoid a big amount of food that are not suitable for our health. People are getting more knowledge nowadays, but there is even much misinformation. What kind of food you have to avoid or, at least, eat occasionally?

- White and Brown Sugar
- Sweets and candies.
- Industrial baking
- Wheat Flour
- Wheat Bread
- Wheat cereals
- Wheat pasta
- Alcohol and fresh soft drink

To sum up, the logical pyramid food is...



5.2. Some practical recommendations.

- ✓ Three meals at day is enough.
- ✓ Consuming daily 45-50% Carbs, 25-30% Fats and 25-30% Proteins.
- ✓ Eating fish and meat. Above all, a good variety of fish.
- ✓ Ingesting 1-2 pieces of fruit daily. Seasonal fruit.
- ✓ Eating a variety of vegetables each meal. It's not necessary to measure the amount.
- ✓ Chewing slowly and quiet. It's very important to absorb and assimilate the food properly.
- ✓ Many people ask themselves how much food they can eat each meal. The answer is easy: when you feel satisfied and satiated, stop eating.
- ✓ Drinking at least 2 litres of water.
- ✓ After physical exercise, eat nuts, some fruit and water.