

Sport and Nutrition Translation

If food is important in the life of an athlete in competition , food is also important on a daily basis for sport practise and for training sessions .

The Physical activity increases energetic expenses and the energetic balance , that is to say the difference between what we eat and what we burn is unbalanced / challenged , and we need to eat more, to draw up the balance .

Furthermore , the increased use of the locomotor engine causes multiple micro lesions at the muscle scale cells of bones or nerves.

Owing to this degradation , intense regeneration and synthesis of new tissues are required .The organism will need all the resources in amino acid , lipids and other mineral elements to get repaired and to build up new resources .

What is an emergency ,when the jogger 's muscles are in action ,is to provide a source of energy under the form of an ATP adenosine triphosphate .

But what is happening at the metabolical level ??

A sprinter produces a very short but intense effort , thus the muscle needs to be fuelled immediatly in energy, mostly consuming carbohydrates.

On the contrary , a marathonian produces a less violent effort but a longer one : the energy needs to be brought up to the muscles continuously on a longer time / scale .

The muscles needs 2 types of fuel : carbohydrates and lipids

The more intense the effort is , the more carbohydrates ' intake the organism needs

However the quantity of glucosis in the body is extremely limited

It is mainly stocked in the liver and in the muscles ,under the form of a glycogen.

It is this glycogen which is used during a prolonged effort , consequently it is important to stock some glycogen before practising an effort with, for example the consumption of the traditionally famous « pasta plate »

In case the effort lasts longer and despite the levels of the stock of glycogen is low , the muscles take a deeper intake in the lipid (fat in stock)

The muscular tryglycérids are the first to be used it as they are close to the muscular cell then comes the triglycerides of the adipose tissues which are about of 12 % for the man and of 15% for the woman which represent a quantity that can not be practically be exhausted .

To sum up

We can say that our organism needs glucid to go faster and lipids to go longer . If before practising , you need to stock some glucid to counterbalance the energetic expense to come , it is important to build them up after an effort through an food intake .

This food intake also has the function to regenerate the tissues / cells .

In itself , the sweat is composed of 99 of water and 1 % of salt is accounts for 80% of the loss of body liquid during the effort that can amount to 2 or 3 litres of water.

What's more , 1g. of glucose requires 3g .of water , explaining the importance of hydrating oneself with water after a physical effort to favor the reconstitution of the cells .

The mineral salts lost through sweating must be recovered : a good balance between sodium and potassium is important as it is regulating the water quantity in our body / organism and the stability of the blood pressure .The msucular synthesis requires the intake of amino acid , which are at the core structure of the proteins ; the regeneration of the muscular membrane of the muscles and of red blood cell requires lipids ' intake which are the main constituents of the cell membrane .

The needs in iron, elements contained in the blood' s red blood cells and compulsory to the transport in dioxygene increases through the physical exercising .

Without a regular intake ,a possible anemy can happen .

The bones that are sollicited during an effort undergo micro-fractures that must be repaired / healed Calcium in a sufficient intake allows the bone reconstitution , calcium playing fundamental role in the muscular tightening / contraction .

In conclusion

We can say that food is the most powerful anabolysing dope in the fodd practise if then right nutrients are brought up at the right time before and after the effort : sport and nutrition compose a winning duo .