OXYGEN WATER AND ITS POSITIVE ROLE IN FOOTBALL

Oxygen and water are two basic nutrients and without them a normal life or high quality physical and mental performance of a football player is impossible.

Water is a universal, existential and somewhat mysterious medium of a drinking regime for a football player, supporting his performance. It has a memory information and energy effect, it is a natural and beneficial compound providing sporting life. No matter which admixture it is mixed with, its meaning is essential and decisive. Oxygen is an essential part of all biological, biochemical and bioenergetic processes in the player's body, soul and mind. It refreshes the muscles, the heart and the brain and "breathes new life into" their performance.

The body of a football player can survive without food for about 2 weeks, without liquids for less than a week, but without oxygen it will not last longer than a few minutes. It is a vital element that is partially soluble in water. Its solubility is associated with external conditions (temperature, barometric pressure, content of other compounds in water). For instance, there is a higher concentration of oxygen in waterfalls than in the air. That's why it is quite realistic to get water with a higher oxygen content which increases its quality for the player’s regeneration and performance.

Oxygen therapy - has become a non-traditional supplemental recovery method, which has been used in supportive therapy of various diseases and injuries of football players for a long time. Since the players around the world do not usually mind spending money in order to improve their health condition, many of them buy a device which enables them to inhale oxygen or other special mixtures “in a mask” according to the physician's prescription by artificially altered or changed pressure. This is the so-called pneumatic inhalation. In the opinion of many healthcare workers, it accelerates the treatment of such injuries that seem to be unrelated to the intake of oxygen. An excellent example may be the rehabilitation after knee surgery, which becomes much faster and the sportsman increases his stamina at the same time. However, the problem is often the economic disadvantage of the method, its slowness, impossibility of necessary urgent use and, in particular, impracticability.

Therefore drinking oxygen-enriched water has been quite popular lately (Oral Oxygen Therapy (OOT) – a new method using positive effects of oxygen mixture and water. In the 1970s it began to be used in medicine and in the food industry to support the treatment of cellular hypoxia (a diagnosis based on the lack of oxygen supply in cells). Despite some distrust it had been spreading gradually and in the third millennium it became very popular among sportsmen. Over the last few years it has developed into a hit among supporting means.

The gaseous oxygen is dissolved in water by physical processes, not by chemical means. This creates the possibility to use positive effects of oxygen. The solubility of oxygen in water is conditioned by external conditions - in particular by temperature, barometric pressure and the presence of salts (other compounds) in water. *It does not create bubbles which could be disturbing while drinking before and during sports activity.*

In such cases, drinking oxygen-enriched water is particularly effective, as oxygen is transported directly to circulating blood through the digestive and cardiovascular systems. Absorption of oxygen-enriched water begins in the mouth and continues into the digestive tract. Five minutes after drinking oxygen-enriched water, an increase in the amount of oxygen in the blood was

found. In contrast to oxygen applied through the mask (gaseous state), the oxygen delivered to the body as water solution remains in the blood at an increased concentration for several hours. Even after 3 to 4 hours after the oxygen-enriched water intake, the oxygen concentration in the blood is still higher. It is the result of active transport of the oxygen in the body.

For football players, the ideal amount is two deciliters of oxygen-enriched water ten minutes before the first half, and the second dose is recommended in the break before the second half. It is also appropriate to use this model in training which means drinking oxygen-enriched water short before the training and then at specified intervals as advised by the physician.

Improvement of the players' muscle elasticity and rapid activity is obvious. There is no usual fatigue, shiver or cramps. "Oxygen-enhanced" water is really one of the most active potions of performance. In addition, after the match or training it "takes care" of accelerating the detoxification processes in the body as the cytochrome P-450 activates in the liver. Waste products like lactate and later creatine kinase (CK), ammonia or urea are washed much faster and muscle tissue regeneration is more active and more effective - there is no "clogging" or muscle fever.

In the long-term use of oxygen-enriched water, it: - stimulates and regulates the immune system (body defense),
- optimizes the number of blood cells,
- reduces oxygen deficiency of the muscle cells (cell hypoxia), thus improving wound healing and complex health condition,
- increases antibacterial and antiviral impact, especially on anaerobic bacteria,
- positively effects problems in the digestive tract (heart-burn, stomach troubles),
- reduces excessive formation and secretion of gastric acid,
- stabilizes the condition of the heart muscle,
- improves the quality of sporting and civilian life, and slows down aging.

Drinking oxygen-enriched water has also become more and more popular among those interested in reconditioning and regeneration of the body due to demanding professions such as managers, trainers, entrepreneurs etc., where mental stress often overcomes physical.
Its long-term use, according to some study results from the US or Germany, also increases psychological resistance (so-called brain doping).