active HYDROGEN®

THE MOST POWERFUL NATURAL ANTIOXIDANT

- Eliminates pain
- Reduces swelling
- Speeds up recovery process after injuries
The first and only topical gel based on the world discovery that is reflected in the synergy of nature and the latest scientific research regarding the powerful antioxidant effect of molecular hydrogen which is now considered to be the most powerful natural antioxidant.

ACTIVE HYDROGEN PROFESSIONAL GEL is a product for topical applications which with recommended regular application helps with consequences and conditions of muscle and connective tissue injuries caused by blow, falls, sports injuries and other causes that lead to hematoma, swelling, sprains and strains and is also extremely successful in prevention and preparation of muscles for efforts. Scientific studies have confirmed that molecular hydrogen has also beneficial effect on inflammations and muscle fatigue caused by strenuous and intense physical activities such as sports, recreational exercise or heavy physical labor.

ACTIVE HYDROGEN PROFESSIONAL GEL is hyper-saturated with nano bubbles of molecular Hydrogen so that this powerful antioxidant exerts a strong potential. This potential is reflected in the capacity of molecular Hydrogen to penetrate easily into the cells, thus selectively and aimfully eliminating only harmful free radicals which are toxic products of metabolism (hydroxyl and peroxyl nitrates).

ACTIVE HYDROGEN PROFESSIONAL GEL is hyper-saturated with nano bubbles of molecular Hydrogen and as such creates rich base solution. Alkaline, i.e. base, solutions neutralize and remove unnecessary acids from our body.

- Reduces and stops the inflammatory process
- Reduces and eliminates pain after injuries and inflammations
- Leads to a reduction and disappearance swelling and bruising
- Neutralize negative effects of excretion of lactic acid in the muscles
- Speeds up recovery after sports injuries

Active Hydrogen Gel

acidly healthy
Hydrogen is the smallest known molecule in the Universe (5 times smaller than the molecule of Oxygen) and as such has the capacity to penetrate very deep below the skin surface (3-5 cm), which was ascertained by diagnostic ultrasound, while Active Hydrogen Professional Gel was being applied onto the treated spot.

Active Hydrogen Professional Gel is a product for general use and possesses the Health and Safety Approval by the certified laboratory of the Republic of Serbia.
Molecular hydrogen is used for more than 40 years in experimental and clinical medicine, and the last decade was accompanied by remarkable discoveries regarding the beneficial effects of this simple molecule. It has been discovered that the molecular hydrogen has multiple functions in the human body, including anti-inflammatory, anti-allergic, anti-oxidant, buffering and regulatory role.

The beneficial effects of the hydrogen have been confirmed in more than 70 experimental disease models and 13 clinical studies, particularly for diseases that are accompanied by severe oxidative stress, such as diabetes, metabolic syndrome, cerebral infarction, rheumatoid arthritis, or neurodegenerative disease.

It seems that molecular hydrogen has the ability to selectively neutralize toxic molecules (free radicals) at the location of injury or damage, a low molecular mass enables rapid and deep penetration of hydrogen into otherwise inaccessible areas of tissue and cell organelles of affected tissue.

There are several ways of application of molecular hydrogen – inhale of the hydrogen gas, oral intake (water enriched with hydrogen), intravenous or intraperitonel injection of hydrogen or direct application in form of eye drops, bath solutions or gel formulations for topical use. Molecular hydrogen has an advantage in terms of toxicity – it is not cytotoxic even at high concentrations.

The effects of molecular hydrogen in the last few years has been actively investigated in the fields of medicine dealing with the system of the movement - of orthopedics and sports medicine to rheumatology, and physical medicine. It seems that molecular hydrogen can affect the reduction of so-called secondary injury that occurs as a result of high oxidative stress in diseases and acute injuries of the locomotor system.
Molecular hydrogen and soft tissue injuries

On professional athletes were researched the effects of the oral and topical use of molecular hydrogen after acute soft tissue injuries (tendons, muscles and ligaments) using hydrogen as a supplement to conventional treatment of sports injuries. Hydrogen has been used for two weeks in addition to taking the hydrogen pills (2 grams per day), the Active Hydrogen Gel was also applied at the location of injury, which were used 6 times a day for 20 minutes. Athletes were monitored immediately after the injury and then after 7 and 14 days during recovery - the feeling of pain at rest and in motion, passive mobility of joints, swelling of damaged tissue as well as several inflammatory markers were measured.

The combined use of oral and topical hydrogen led to a significant reduction of inflammation and improvement of joint mobility after sports injuries of muscles and tendons. On the other hand, there was no change of other parameters during the recovery of sports injuries, nor significant side effects of taking molecular hydrogen. This study indicated the possible beneficial effects of 2-week intake of hydrogen as a supplement to traditional treatment of soft tissue sports injuries.

Benefits of molecular hydrogen

Multiple mechanisms of action - Experimental and clinical studies have shown that molecular hydrogen possesses anti-inflammatory and cytoprotective effect on muscle cells, cartilage and bone tissue. It is possible that hydrogen also acts as a signal regulator of expression of the protein.

The favorable bioavailability - Small size molecules and transport by simple diffusion most likely allow molecular hydrogen easily and quickly to reach the tissues of poor circulation (eg. cartilaginous tissue) without limitations specific to other therapeutic agents.

The absence of significant side effects - Clinical studies indicate a high therapeutic safety of all forms of hydrogen for human consumption. Apart from isolated cases of light gastrointestinal discomforts [eg. mild diarrhea] so far there are not known toxic effects of hydrogen even when giving megadose.

A wide range of therapeutic forms - In acute and chronic pathological conditions of the locomotor system molecular hydrogen can be administered via inhalation of gas, the use of oral forms (eg. tablets, solutions) and topical application ACTIVE HYDROGEN GEL.

The possibility of co-application - Due to the low probability of interaction with other drugs molecular hydrogen can be used simultaneously with other therapeutic agents without compromising their performance. It is possible adjuvant action with traditional therapy.

Prof. dr sci. med. Sergej M. Ostojic
Centre for Health, Exercise and Sport Science, Belgrade

Brand owner:
Executive Pro Solutions d.o.o. Belgrade, Serbia
info@activehydrogenproducts.com
www.activehydrogenproducts.com