

Sports nutrition: About and beyond muscles

When considering recovery from exercise and enhancing longevity by reducing oxidative stress, **AstaReal** shows us why, far from being the sole domain of protein and replenishing depleted stores of muscle glycogen, it is absolutely vital to take into account micronutrients, nutraceuticals and functional foods when considering our long-term health goals.

Today, the definition of sports nutrition has broadened to encompass a holistic approach that goes beyond mere physical performance. The focus is shifting from immediate and short-term benefits like strength, endurance and recovery, to long-term holistic health outcomes and sustainable approaches to fitness. This evolution reflects a deeper understanding of the complex interplay between nutrition and overall health, making modern sports nutrition more relevant and accessible to a wider audience than ever before.

The sports nutrition market was once dominated by supplements like protein powders, energy bars and hydration drinks. Micronutrients like vitamins and minerals were often overlooked, with a primary focus on macronutrients (protein, carbohydrates and fats). Today, the boundaries between regular foods and supplements are blurring with the rise of functional foods and nutraceuticals beyond traditional compounds. More products are enriched with novel ingredients that support athletic performance, recovery and overall health. Products like protein-enriched snacks, antioxidant-rich drinks and gut-friendly probiotics are now becoming part of everyday diets for many active individuals.

Age, activity and oxidative stress

Oxidative stress tends to increase with age and through higher intensity physical exercise, while our body's natural antioxidant defenses decline over time. This can contribute to muscle degeneration, reduced endurance and a higher risk of age-related diseases, making antioxidant support through diet and lifestyle even more important for active people. Therefore, potent antioxidants, like astaxanthin, are becoming better recognised as integral to



Active women often seek both performance and aesthetic benefits of exercise and supplementation.

comprehensive sports nutrition strategies for reducing oxidative stress, supporting immune function and aiding recovery.

A holistic approach to recovery

In the past, recovery in sports nutrition was largely limited to replenishing glycogen stores and providing enough protein for muscle repair. Today, recovery is seen as a multidimensional process that involves not only macronutrients but also micronutrients, hydration, sleep quality and even stress management. Multifunctional ingredients that promote muscle and joint health, reduce inflammation and enhance mood and sleep are increasingly considered important parts of a recovery strategy.

Inclusion of aesthetic goals

Moreover, with the constant growth of the women's health category, there is a huge market potential for sports and active nutrition products that incorporate ingredients aimed at also promoting beauty from within. Formulations that support healthy skin and overall vitality (such as

collagen and astaxanthin) are now becoming integrated into sports nutrition products, especially for active women who seek both performance and aesthetic benefits.

Environmental and ethical considerations

While animal-based proteins, such as whey, have dominated the sports nutrition product category for athletes, active individuals who are adopting more sustainable lifestyles are seeking products that include a variety of plant-based alternatives, such as pea, hemp and rice protein and other plant-based functional ingredients. Some of these phytonutrients, like algae-derived astaxanthin, have clinically proven efficacy for not only enhancing muscle performance, but also supporting many other bodily organs and systems while catering to ethical and environmental preferences.

In conclusion, an active, long life is built on a holistic approach to health. Strengthening muscles and faster recovery is only one part of the equation; cardiovascular health, joint and bone health, immune health and mental wellbeing all contribute to a healthy, vibrant and active life well into the future.

AstaReal, as the leading manufacturer of natural astaxanthin from *Haematococcus pluvialis* (a unicellular freshwater microalgae), continuously expands its knowledge and understanding of holistic health benefits of this potent, planet-friendly antioxidant. Employing a unique indoor cultivation system, the company guarantees the highest purity, quality and stability of its products. AstaReal astaxanthin is the most studied brand of natural astaxanthin and has been the subject of study in over 70 human clinical trials. ●

www.astareal.se