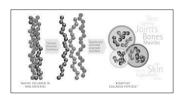
Nutraceuticals

Bioactive Collagen Peptides Help Overcome Injuries

Strong tendons deliver strength, power and speed — derived from their intact composition of extracellular matrix collagens, proteoglycans and elastic fibers. Therefore, it's vitally important to counteract and prevent these injuries with a combination of supplements, rest and proper nutrition.

One protein in particular, collagen, is the main structural component of the various connective tissues in mammals. Comprising 25–35% of our whole-body protein content, it's the most abundant protein in humans and, in the form of elongated fibrils, is mostly



found in fibrous tissues such as tendons, ligaments and skin. Collagen peptides can help to prevent joint damage from mechanical stress. It's also an important protein source, providing the nutrients required for the many metabolic processes that take place in muscles and cells. Collagen peptides can easily be incorporated into a wide variety of sports nutrition products without

any negative impact on taste.

Research data has shown that specific Bioactive Collagen Peptides stimulate the RNA-expression and biosynthesis of collagen, proteoglycans and elastin in Achilles tendons, and that the oral ingestion of specific collagen peptides improves the extension properties of finger joints. An Australian study showed that subjects with longterm symptoms of chronic Achilles tendinopathy were able to return to running within three months when supplementing and were able to keep running for the remainder of the trial period.

Pomegranate and Carotenoids: A Perfect Anti-Oxidant and Anti-Glycative Combination

In a scientific study, pomegranate extract was shown to be effective at protecting human skin fibroblasts from cell death following UVA and UVB exposure while increasing the intracellular antioxidant capacity after UV exposure. Punicalagins and metabolites in pomegranate extract show potent anti-glycative effects, including collagen glycation.

A unique combination of lutein with varying levels of zeaxanthin, may contribute in boosting the antioxidant body defense system that protects from environmentally induced skin damage. Recent scientific studies on lutein and zeaxanthin demonstrate their skin photo-protective, anti-photo aging and moisturizing effects, due to the positive up-regulation of collagen, elastin and AQP3 gene expressions.



Furthermore, a recent clinical study demonstrates Asthaxanthine's protective ability against UV-induced skin damage and aging and the role in maintaining healthy skin in healthy people. Combining

these ingredients may result in prevention of skin damage caused by UV exposure while safeguarding the dermis through hydration for healthy skin, especially during summer when it has the most exposure to sunlight.

Taurine Supplementation Potentially Halts Cardiac and Visual Degeneration

Researchers from the University of Geneva have discovered a new gene that causes blindness and cardiomyopathy. They have also managed to halt the progression of eye disease and treat cardiac disease by administering a food supplement.

Researchers at the University of Geneva (UNIGE), Switzerland, have recently identified 45 new genes that cause blindness or cognitive problems. The scientists focused in particular on the SLC6A6 gene, which encodes a transporter protein that carries an amino



acid essential for the functioning of the retina and cardiac muscle: taurine. When there are pathogenic mutations of the SLC6A6 gene, an individual will suffer from a lack of taurine and will gradually lose his sight

until he becomes blind within a few years and develops a weak heart. The geneticists at the University of Geneva hypothesized that a taurine supplement might make it possible to compensate for this deficiency.

Curcumin: The Spice for Treatment of Alzheimer's and Genital Herpes

The failure of the body to easily absorb curcumin has been a thorn in the side of medical researchers seeking scientific proof that curcumin can successfully treat cancer, heart disease, Alzheimer's and many other chronic health conditions.

Researchers from the University of South Australia (UniSA), McMaster University in Canada and Texas A&M University have shown that curcumin can be delivered effectively into human cells via tiny nanoparticles.

Sanjay Garg, a professor of pharmaceutical science at UniSA, and



his colleague Dr Ankit Parikh are part of an international team that has developed a nano formulation which changes curcumin's behaviour to increase its oral bioavailability by 117 percent.

The researchers have shown in experiments that nanoparticles con-

taining curcumin not only prevents cognitive deterioration but also reverses the damage. This finding paves the way for clinical development trials for Alzheimer's.

Women are biologically more vulnerable to genital herpes as bacterial and viral infections in the female genital tract (FGT) impair the mucosal barrier. Curcumin, however, can minimize genital inflammation and control against HSV-2 infection, which would assist in the prevention of HIV infection in the FGT.

Delphinol's Proven Efficiency on Bone Health and Blood Sugar Regulation

Within the course of a preclinical study covering in vitro and in vivo analyses, the effect of a polyphenol-rich maqui berry extract on bone metabolism with focus on bone density and mineralization was investigated with special regard to the influence of the anti-oxidative potency of the compound. The extract not only inhibited osteoclastogenesis and thus protected against bone loss in two osteopenic mouse models but also stimulated formation of new bone and enhanced mineralization.

Delphinidin-rich maqui berry standardized extract positively influences levels of fasting and postprandial blood glucose, as well as insulin levels in pre-diabetic subjects.

In a study, pure glucose absorption was explored in an open trial. The results show postprandial blood glucose levels were lowered with all tested doses of



60, 120 and 180 mg Delphinol® in a dose-dependent manner, due to a drop in fasting glucose levels. The blood glucose peaks shifted from 30 minutes under placebo to 60 minutes after pure glucose intake with Delphinol®. Insulin levels were also lowered in a direct way.

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