



Naticol[®],
fish
collagen
peptides
promotes
Anti-ageing,
skin
beauty
and
wellness



ollagen is widely distributed in the organism and takes part in vital functions of nearly all systems' organs and tissues. The role of collagen is undeniable and particu-

larly, the efficacy of Naticol[®], fish collagen peptides, which showed in scientific and clinical results to have a high level of bioavailability and bioactivity in many domains: beauty, weight management, musculoskeletal condition and overall well-being. Naticol[®] is manufactured by Weishardt, a French company with more than 170 years of experience in collagen field.

Naticol[®], specific, unique and bio available Type 1 fish collagen peptides

Weishardt's R&D department carefully selects the raw material and enzyme mixture that generate peptides with targeted biological activities. The nature of the matrix is due to the raw material source, the choice of protease and the extent of hydrolysis which are the three main



factors in the production of **specific and unique** collagen peptides with targeted biofunctionalities.

Naticol[®] collagen peptides provide the appropriate amino acids needed to biosynthesize collagen in the body. The low molecular weight allows absorption into the bloodstream after digestion. Indeed, it has been shown that Proline-Hydroxyproline has a chemotactic activity for cultured fibroblasts, the cells which synthesize collagen.

Skin beauty and anti-ageing application

Skin ageing is one of the most important current dermatological concerns. Ageing may be considered as the accumulation of diverse dele-

rious changes in cells and tissues.

Among various factors, clinical signs of dermal atrophy and skin ageing (including skin dryness, hypo/hyperpigmentation, diminished skin elasticity and firmness) are associated with a reduction and disorganization of collagen. Fish collagen hydrolysates have been studied for repressing skin damage caused by UVA due to antioxidant/ anti-inflammatory activities. They may also help to maintain skin smoothness, hydration, elasticity and reduce skin wrinkles (Shynia et al. 2011). Two clinical studies conducted by CPCAD (Centre de Pharmacologie Clinique Appliquée à la Dermatologie), Nice University Hospital, France, showed that an oral intake of Naticol[®] may reduce the appearance of the wrinkles, improve skin hydration and elasticity. Results of the clinical studies are published in Journal of Ageing clinical and Research practice JARCP, Duteil et al. 2016).

Joint health

With advancing age the musculoskeletal



system loses both bone, through osteoporosis and muscle through sarcopenia. Type 1 collagen is widely present in bones, tendons and ligaments which contribute to mechanical behaviour. Naticol® can provide the amino acids which make up collagen in these tissues. Fish collagen peptides may also increase the dietary absorption of calcium (Nakatani et al., 2009). Naticol® is a pure collagen protein which may also contribute to increasing the muscular mass.

With advancing age, the musculoskeletal system loses both bone, through osteoporosis and muscle through sarcopenia. Osteoporosis is characterized by reduced bone mass and micro-architectural deterioration of bone tissue, with a consequent increase in the risk of fracture. Worldwide, the total number of hip fractures is expected to surpass 6 million by the year 2050 fracture, (Kannus P, Parkkari J, Sievänen H, et al. epidemiology of hip fractures. *Bones* 1996; 18:57). Sarcopenia is considered to be one of the major factors responsible for functional limitation and motor dependency in elderly people. Both processes play crucial roles in frailty syndrome and the outset of disabilities in elderly subjects. Type 1 collagen is widely present in bones, tendons and ligaments which contribute to mechanical behaviour. Naticol® can provide the amino acids

which make up collagen in these tissues. Fish collagen peptides may also increase the dietary absorption of calcium (Nakatani et al., 2009). Finally, Naticol® is a pure collagen protein which may also contribute to increasing the muscular mass. With its scientific Research partner, INSERM Toulouse (National institute for Health and medical Research), WEISHARDT, the world's health protein provider, has evaluated the effects of its fish collagen peptides, Naticol®, on muscle and bone condition. In this study, ovariectomized female mice having developed a model of osteoporosis were used. The mice received a normal daily diet containing 2.5% Naticol® for 14 weeks. The results of this study demonstrated the positive effects of ingestion of Naticol® on the muscular mass. Moreover, muscular force was increased by 17%! The results of this in vivo study also showed that the mineral bone density tended to increase.

Weight management

Today, any debate on health must consider the problems associated with being overweight or obese, a problem mostly afflicting western nations. Overweight and obesity represent an important public health issue. Being overweight or obese can lead to both chronic and severe medical conditions. Collagen peptides may play a role in weight management as dietary proteins, partly due to protein effects on satiety (Veldhorst et al. 2009). More recently, in-vivo studies conducted by INSERM France regarding weight management showed that in a high fat diet, Naticol®, the fish collagen peptides produced by WEISHARDT may decrease the fat mass gain and maintain the lean and total water mass compared to control mice group, after 9 weeks.



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