"An ounce of prevention is worth a pound of cure"

2 billion people will be aged 60 and older by 2050\(^1\). There are many costs associated with an aging population, starting with the health insurance costs associated with age related musculoskeletal diseases. Government Health Insurance schemes are under pressure due to aging population and rising costs. There is a trend of moving towards more private insurance. Authorities are encouraging their population to eat healthy in order to prevent diseases. Individuals are also becoming more proactive in adopting a more healthy lifestyle.

Supporting bone health with nutrition

Maintaining a healthy lifestyle with exercise and a balanced diet including sufficient intake of calcium, vitamins (D,K) and protein helps to preserve bone health.

To support bone health with nutrition necessitates providing sufficiently bioavailable amounts of constitutive elements and proteins\(^2,3\) that serve as building blocks, as well as nutrients endowed with specific bone sparing properties (e.g. Vitamins D and K). Because the organic scaffold of the bone is made of collagen, supplementing a balanced diet with collagen peptides provides valuable building blocks and has been demonstrated in scientific studies to exert specific regulatory benefits. This turns collagen peptides into a promising candidate supplement to help aging consumers maintain good health. Research shows that a daily intake of 8-10g/day of bioactive collagen peptides can assist in maintaining collagen levels and help enhance bone health.\(^4\)

Peptan\textsuperscript{®} collagen peptides

Peptan products are Type 1 Collagen Peptides and are a high purity natural bioactive protein. Peptan contains 18 key amino acids and offers exceptional nutritional properties not found in other protein sources.

Bioavailability of collagen peptides

Orally administered collagen peptides are digested in the gut, cross the intestinal barrier, enter the circulation and become available for metabolic processes in the target tissues. Ingestion of a collagen peptide, as opposed to its intact form, accelerates the digestion and the absorption from the gut, increases postprandial amino acid bioavailability and tends to improve the incorporation rate of dietary amino acids into target tissues.\(^5\)

Various studies have shown that di- and tri-peptides, as well as amino acids derived from collagen peptides, can be detected in blood as well as in various target tissues such as cartilage and bone.\(^6,7\)

Peptan can promote bone health as shown in an animal model\(^8\) and an in vitro study\(^9\) to:

- Maintaining bone mineral density
- Stimulating bone forming cells
- Improving bone microarchitecture
- Increasing bone strength

In 2015 Rousselot became an official Nutrition Supporter of World Osteoporosis Day led by the International Osteoporosis foundation.
Peptan® Collagen Peptides

Promote bone health

Restore bone mineral density
In an in vivo study, ovariectomized (OVX) mice – an established model that mimics the loss of bone mass (osteopenia) in postmenopausal women – received a daily dose of Peptan for 3 months.

- Peptan treatment restores bone mineral density (BMD) in OVX mice to the normal level seen in control mice. In contrast, non-treated OVX mice have a reduced BMD.

Improve bone strength
In the same in vivo study positive results have also been shown on the bone strength of OVX+Peptan group.

- Peptan treatment increases the ultimate bone strength compared to non-treated OVX mice.

Stimulate osteoblasts
In an in vitro study, primary mouse bone cells were cultured in the presence of Peptan for 2 weeks.

- Peptan treatment promoted the formation of osteoblasts and stimulated their activity. In contrast, the presence of osteoclasts was not increased.

- Peptan shifts the balance of osteoblasts and osteoclasts in favor of bone formation.

Quality first
Peptan are premium quality collagen peptides; 100 per cent natural, safe and free from any preservatives or additives. Peptan is manufactured by Rousselot in state-of-the-art certified plant facilities in France and Brazil meeting the highest international food and quality standards with full traceability throughout the process.

About Rousselot and Peptan®
Rousselot® and Peptan® are both brands of Darling Ingredients Inc. Rousselot is the leading manufacturer* of gelatin and collagen peptides to the food, nutrition and pharmaceutical industries. Rousselot’s wide range of collagen peptides are marketed under Peptan, globally recognized as the leading brand in its category. Rousselot benefits from a global sales and production network of 13 plants and 10 sales offices located in Europe, North America, South America and Asia.

*Source: Grand View Research, Gelatin Market Analysis and Segments Forecasts to 2024, 2014

References:
1. WHO, Ageing and Life Course http://www.who.int/ageing/en

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Hydrolyzed collagen improves bone status and prevents bone loss in ovariectomized C3H/HeN mice.


Hydrolyzed collagen improves bone status and prevents bone loss in ovariectomized C3H/HeN mice.

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