Collavant® n2

Native (undenatured) type II collagen

Use: joint health Dose: 40mg/day Application: dietary supplements

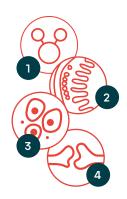
Collavant® n2 is a next generation collagen for joint health innovation. A trusted source of quality, science-backed native (undenatured) type II collagen extracted from chicken sternum, it is manufactured by Bioiberica through a strictly controlled process that preserves the active parts of the molecule.

Type II collagen and the role of the immune system in joint health

Type II collagen is the main structural protein in the cartilage, providing tensile strength and toughness to the tissue. Some joint disorders involving inflammation and cartilage degradation are caused by an immune response against endogenous type II collagen in the body. Orally taken in its native form, a low dose of type II collagen helps to modulate this immune response.

Native type II collagen: mechanism of action

Native type II collagen works at a **low dose (40mg/day)** through a **mechanism of action called Oral Tolerance**, which consists of a diminished immune response to a previously fed antigen.



Oral Tolerance comprises the following stages:

- 1. Native (undenatured) type II collagen reaches the intestine
- 2. It interacts with the Peyer's patches in the intestine, which are responsible for immune surveillance
- 3. It turns off the immune response against endogenous type II collagen
- 4. It reduces collagen degradation in the joint, supporting joint health



Push the boundaries of innovation to deliver on-trend mobility products.

- New generation collagen
- · Low daily dose
- Science-backed:
 efficacy demonstrated
 in seven scientific studies
- From a trusted source: 100% sourced and manufactured in Europe







1. Decreases joint discomfort

Healthy individuals experiencing joint discomfort after exercise and supplemented with 40 mg/day Collavant® n2 elicited significant improvements versus baseline in the Knee injury and Osteoarthritis Outcome Score (KOOS scale) - a measure of pain intensity - starting from 120 days versus baseline. In a preplanned subgroup analysis of participants with a lower Visual Analogue Scale (VAS) pain score (≤4 cm), a significant difference was observed between the supplement and placebo groups at day 180.

Möller, I. et al. Osteoarthritis and Cartilage, 2024.

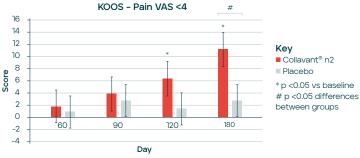


Fig 1, KOOS in a subgroup of healthy individuals with a VAS score <4 cm after placebo or Collavant® n2 supplementation. Results are expressed as difference in score versus baseline.

2. Improves quality of life

Collavant® n2 supplementation at 40 mg/day significantly improved quality of life (KOOS test) from day 90 compared to baseline in healthy individuals. In a subgroup analysis of participants experiencing less pain (VAS score of ≤4 cm), there was a significant difference from baseline earlier (at 60 days) and also between supplement and placebo groups at day 180.

Möller, I. et al. Osteoarthritis and Cartilage, 2024.

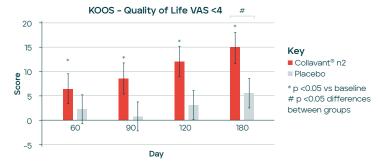


Fig 2. KOOS Quality of Life in a subgroup of individuals experiencing less pain VAS score ≤4 cm) after placebo or Collavant® n2 supplementation. Results are expressed as difference in score versus baseline.

3. Quicker recovery time

Following an exercise protocol, healthy individuals supplemented with 40 mg/day Collavant® n2 recovered at a consistent rate throughout the study period. At 180 days, there was a significant difference in recovery time (40%) between the placebo and supplement groups - with the placebo group taking longer to recover.

Möller, I. et al. Osteoarthritis and Cartilage, 2024.

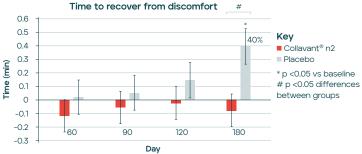


Fig 3. Time to recover from joint discomfort following an exercise protocol (cycling in the air) in the subgroup analysis. Results are expressed as ratio difference versus baseline.

4. Longer distance walked

In a randomised controlled clinical trial including women with knee osteoarthritis, a daily 40 mg Collavant® n2 supplement significantly increased distance walked without joint discomfort (10.4%) compared to control group in a six-minute walking test carried out at six weeks. The effect was comparable to an exercise intervention.

Santana, ETN, et al. Wien Klin Wochenschr., 2023:135:291-300.

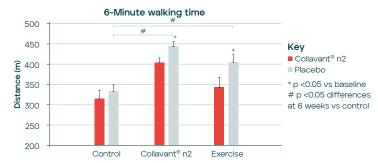


Fig 4. Effect of Collavant® n2 supplementation on six-minute walking time without

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About Bioiberica

Bioiberica is a global life science company with more than 45 years' experience in the research, production and commercialisation of molecules of high biological and therapeutic value for the pharmaceutical, nutraceutical and food industries.

To innovate in the joint health market using Bioiberica's Collavant® n2, contact us today.

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