

Explored: Beneficial effect of cucumber extract on joint health

CuberUp® may have positive impact on knee pain, mobility and muscle function

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Researchers have found that supplementation with Euromed's new cucumber extract CuberUp® may be a useful natural approach to maintaining healthy joints.¹ According to the double-blind clinical study, cucumber extract is linked to the relief of joint pain as well as better muscle function, thus significantly improving quality of life in people with joint discomfort. The results suggest that CuberUp® is a promising botanical ingredient for applications targeting Healthy Agers, athletes and others affected by joint problems.

Joint discomfort, which can vary in severity with conditions such as osteoarthritis, is a common problem that can impact day-to-day living and overall quality of life, particularly among adults over 40. A recent eight-week randomized, double-blind placebo-controlled trial, focused on adults with varying degrees of joint discomfort of the knee. The 55 participants received a daily supplement containing 20mg of Euromed's new natural cucumber extract (*Cucumis sativus* L.).

Subjective perception of knee pain improved significantly in both study groups, but improvements were higher in the CuberUp® group. In addition, a reduction in pain and stiffness, together with improved physical function, were significantly more pronounced in those receiving the cucumber extract. The Timed Up and Go test result – a clinical method to assess a patient's mobility and risk of falling – also decreased considerably in the experimental group. Plus, the researchers noted an improvement in muscle function during knee flexion exercises. Furthermore, they found that inflammatory and cartilage degradation biomarkers decreased significantly in patients supplemented with CuberUp®.

Another interesting aspect of the study is that the researchers measured the development of pain on a weekly basis, and found that it was progressively reduced from week 1 and was significantly less than placebo from week 4 (28 days of treatment), indicating a rapid onset of action. Amino acid derivatives in cucumber extracts possess anti-inflammatory properties and may also improve cartilage nutrition. Moreover, flavonoids and tannins in the phytochemical composition of aqueous cucumber extracts may be responsible for their free radical scavenging and analgesic effects.



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The study was also presented at the 14th Congress of Phytotherapy of the Spanish Society of Phytotherapy in Oviedo, Spain, from 17-19 May, 2024.

Andrea Zangara, Head of Scientific Communication and Medical Affairs, says: "Joint health is a key piece in the healthy ageing puzzle, and there is increasing interest in natural, preventive options offered by nutraceuticals and functional foods. Cucumber is already well-known in traditional medicine. Based on the beneficial effects on symptoms, inflammation and cartilage degradation biomarkers observed in the study, CuberUp® supplementation may be a promising approach to maintaining joint and connective tissue health, and preventing knee joint "wear and tear" for improved mobility comfort. In addition, it is a high-quality, standardised cucumber extract obtained via eco-friendly technology and sustainable farming."

References:

¹ Pérez-Piñero, S. et al.: Effectiveness of a Cucumber Extract Supplement on Articular Pain in Patients with Knee Osteoarthritis: A Randomized Double-Blind Controlled Clinical Trial. Appl. Sci. 2023, 13, 485. <https://doi.org/10.3390/app13010485>

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