NEXT GENERATION PHYSIOTHERAPY

Bioactive Collagen Peptides

Collagen is a major component of the human body. About 30% of our total body protein is collagen.

Collagen peptides have been scientifically proven to stimulate the synthesis of new joint cartilage tissue mass.

Bioactive Collagen Peptides

Scientific studies show that bioactive collagen peptides stimulates collagen metabolism for...

Healthy skin, nails and hair
Reducing cellulite
Healthy joints
Improves mobility
Reduction of joint pain
Improves elasticity of tendons and ligaments
Promotes growth of cartilage tissue
Improves osteoarthritis
Reduces exercise induced stiffness
Can improve bowel function
Pets need collagen too!

Collagen

THE BODY'S PROTEIN

"The global collagen market for regenerative medicine is projected to grow to $1 billion by 2022"

Collagen helps hold everything together like the "mortar between the bricks of a house".

Collagen is a major component of the human body. About 30% of our total body protein is collagen.

Collagen is crucial for mobile joints, stable bones, healthy muscles and strong tendons and ligaments.

Optimal **collagen** levels in the body are essential for smooth skin, strong finger nails and glossy hair.

Collagen is one of the primary structural proteins of connective tissue and is also abundant in blood vessels, intervertebral discs, the blood-brain barrier, eyes, teeth and the intestinal wall.

Symptoms of Collagen Deficiency

Insufficient collagen levels may show up as the following:

- Problems with GI tract lining, including IBS and "leaky gut"
- Premature aging (wrinkles, crepey skin, sagging skin)
- Dry skin
- Brittle nails
- Cellulite
- Stiff, inflexible joints
- Joint pain
- Issues with tendons or ligaments
- Weak muscles or loss of muscle mass
- Poor Bone Mineral Density (BMD) reports
- High blood pressure (due to inflexible blood vessels)

Healthy Joints: Protection and Regeneration

When every step hurts, quality of life is seriously compromised. Today, every fourth person suffers from joint problems; and with our aging population, the situation can only get worse. Pain-relieving analgesics, immobility and, in many cases surgery seems to be the only solution.

Degeneration of the joint cartilage, particularly as a result of mechanical abrasion, is a normal part of the aging process. But as exercise and keeping active is an extremely important aspect of keeping our joints supplied with liquids and nutrients, immobility can speed up the degeneration process. It's a vicious circle.

In many cases, a regular supply of **collagen peptides** can help to rejuvenate the joint cartilage and can make movement both smoother and less uncomfortable. After just a few weeks of regular intake, many patients experience significant pain relief and increased mobility.

Collagen makes up approximately 70 per cent of the body's cartilage dry mass, so it's a primary constituent and plays a key role.

Collagen peptides has been scientifically proven to stimulate the synthesis of new joint cartilage tissue mass. It's the perfect natural and effective way to protect and regenerate joint cartilage.

The stimulating effects of these collagen peptides on cell growth in skin, joints, tendons, ligaments and bones has been demonstrated in numerous scientific studies. Collagen Peptides are therefore a valuable source of essential and non-essential amino acids.

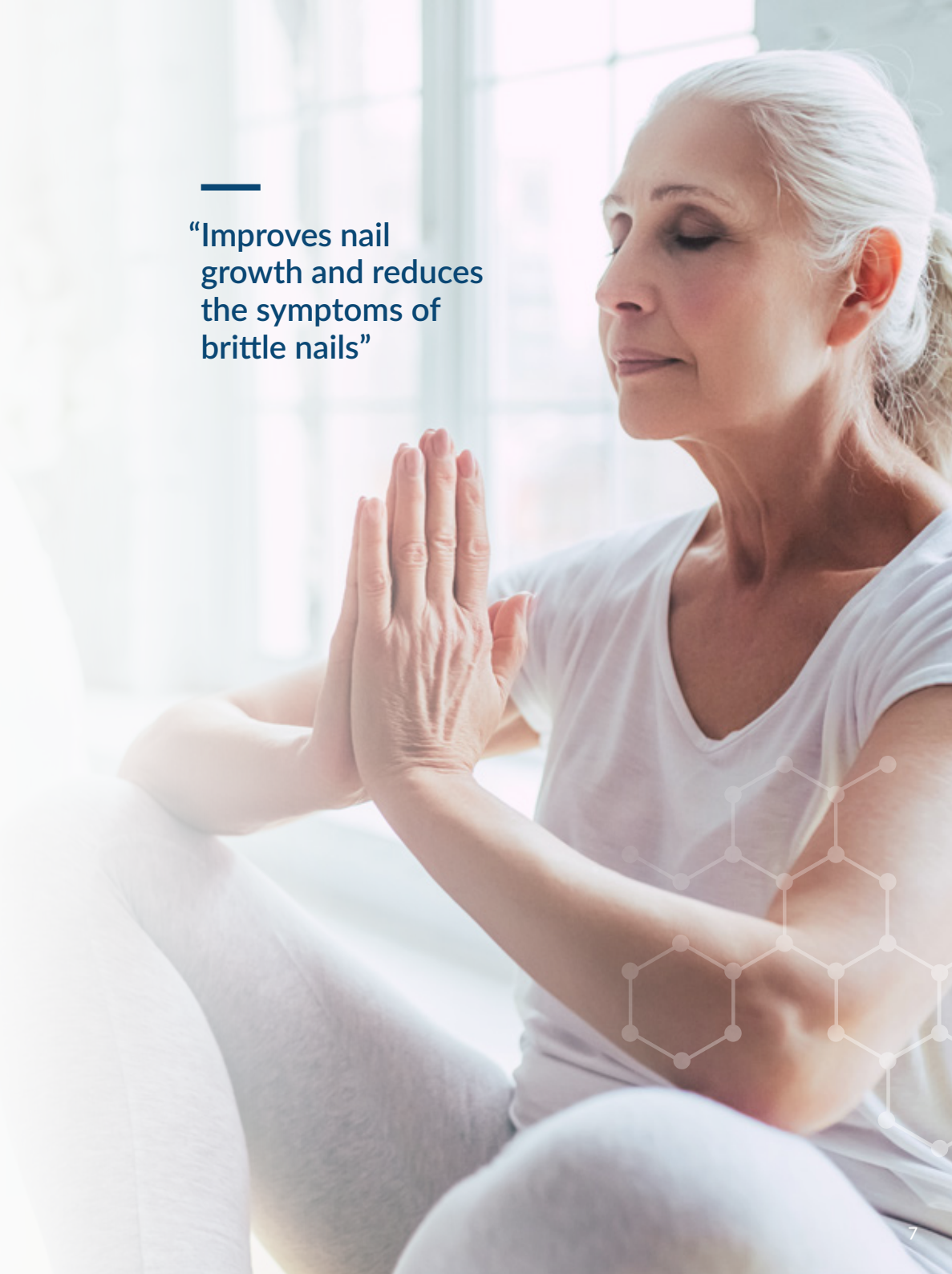
The Journal of Cosmetic Dermatology (Dec, 2017) reported that oral supplementation with specific bioactive collagen peptides improves nail growth and reduces the symptoms of brittle nails.

Brittle nail syndrome is a common problem among women and refers to nails that exhibit surface roughness, raggedness, and peeling.

Bioactive collagen peptides treatment promoted an increase of 12% nail growth rate and a decrease of 42% in the frequency of broken nails. Additionally, 64% of participants achieved a global clinical improvement in brittle nails, and 88% of participants experienced an improvement 4 weeks post-treatment.

The majority of participants (80%) agreed that the use of **Bioactive Collagen Peptides** improved their nails' appearance, and were completely satisfied with the performance of the treatment.

This study demonstrated that the daily ingestion of BCP increased nail growth and improved brittle nails in conjunction with a notable decrease in the frequency of broken nails.



"Improves nail growth and reduces the symptoms of brittle nails"

Collagen peptides should be given high priority in any nutritional supplemental program.

Collagen Peptides contain a high concentration of the amino acids glycine, hydroxyproline and hydroxylysine which are often low in many diets.

The stimulating effects of these collagen peptides on cell growth in skin, joints, tendons, ligaments and bones has been demonstrated in numerous scientific studies. Collagen Peptides are therefore a valuable source of essential and non-essential amino acids.

"Collagen improves leaky gut by downregulating the production of zonulin and promoting tight junctions"

https://www.ncbi.nlm.nih.gov/pubmed/28174772

The role of collagen in the human body.

The body of a typical adult consists of 60-70% water. Proteins are the second most important components at 20%. Of these, 35% are collagens, which are the most important building block of connective tissue. Collagen is therefore an indispensable ingredient for healthy nutrition.

Collagen peptides offer numerous physiological benefits and stimulate natural body functions. They pass through the intestinal wall and accumulate in the blood after only 15 minutes to be distributed to the connective tissues of the body. The reason for this is the short chain length of the peptides and their low average molecular weight. The biocompatibility, biodegradability and low immunogenicity of collagen make it attractive for a number of biomedical, pharmaceutical and food applications.

In other words, collagen peptides are natural to the body and absorbed extremely well

Collagen is also a source of essential amino acids which cannot be synthesized by the body. Essential amino acids are required for many of the healing and regenerative processes in the body.

Collagen peptides are obtained from nature

Our collagen peptides are produced from natural raw materials of animal origin, mostly bovine; these are inspected and approved for human consumption by the veterinary authorities. The actual raw material for the manufacture of collagen peptides is collagen protein.

Collagen peptides are natural to the body and absorbed extremely well.

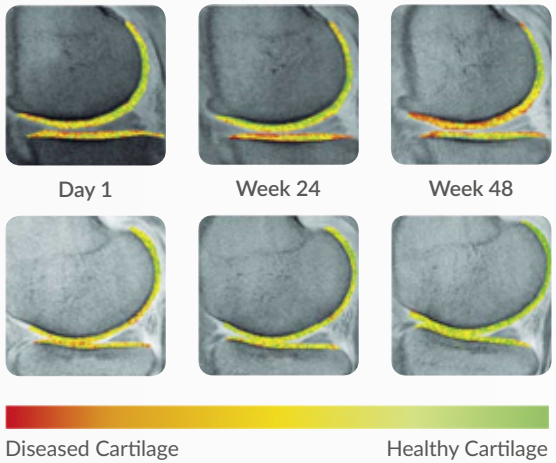
Collagen also delivers essential amino acids, which cannot be synthesized by the body. Certain non-essential amino acids, such as glycine and proline, may not be produced in adequate amounts especially when the body is suffering from chronic inflammation, infection, or excessive exercise. A daily dose of collagen peptides will ensure optimal levels.

Collagen regenerates cartilage tissue in humans.

In a study published in March 2011 by McAlindon and colleagues, the long term effect of Bioactive Collage Peptides in individuals with early knee osteoarthritis was investigated. This prospective, randomised, double-blind, placebo-controlled pilot study was performed at the Tufts Medical Center in cooperation with Harvard University.

Overall, 30 subjects were randomised into one group receiving 10g Bioactive Collagen Peptides a day for 48 weeks and a control group receiving a placebo. Three MRI scans of the knee were performed on each subject, one at baseline, one at 24 weeks with the final scan at 48 weeks.

The analysis of the cartilage scans revealed a statistically significant increase in proteoglycan density in the medial and lateral tibial regions of the Bioactive Collagen Peptide treated subjects compared to the placebo group. Results indicate that oral supplementation of Collagen has a direct impact on human cartilage tissue.



[1] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1797999/

"Arthritis instantaneously causes collagen degradation... clinically perceptible arthritis is responsible for immediate damage, which will become visible on plain x-rays only much later."

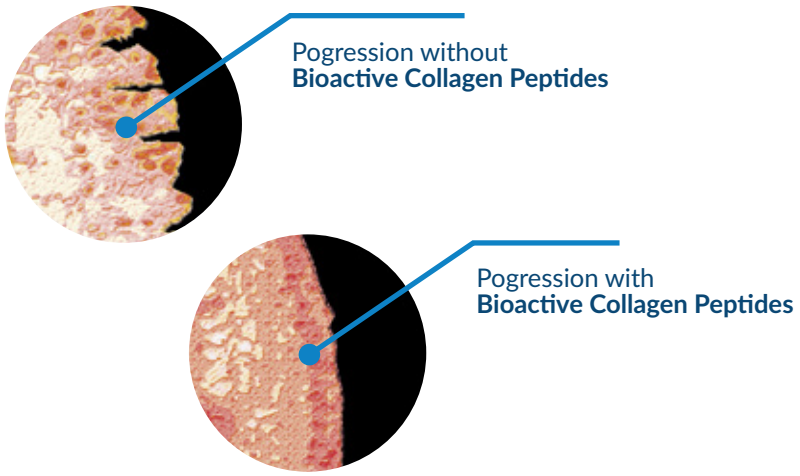
British Medical Journal[1]

Bioactive Collagen Peptides promote growth of cartilage tissue

The effectiveness of Bioactive Collagen Peptides (BCP) has been scientifically proven in numerous studies.

According to published research, orally administered BCP is absorbed intestinally and accumulates in cartilage. The ingestion of BCP stimulates a statistically significant increase of cartilage tissue metabolism.

Change in the joint cartilage after 3 month (tissue sections*)



*Oesser S et al. (2007) Osteoarthritis Cartilage 15: C61-C62, 94

Penn State study confirms improvement of mobility with Bioactive Collagen Peptides

At Penn State University (USA, 2008), 147 athletes were recruited who experienced activity-related joint pain. Those athletes (mean age 20.1 years) were subdivided into one group taking BCP as a nutritional supplement and a control group taking a placebo for 24 weeks. The severity of symptoms was rated both by the treating physician and by the study participants with a visual analogue scale.

In this prospective, randomized, double-blind, placebo-controlled study, it was interesting to observe a statistically significant difference of pain perception between treatment and control groups. When utilizing alternative therapies such as hydrotherapy, massage and ice and heat packs, there was a clear-cut difference between the treatment and the placebo group in favour of the BCP group. This was the first trial to show improvement of joint pain in healthy athletes treated with BCP.

In summary, the studies confirm that the intake of Bioactive Collagen Peptides result in improvement of mobility in healthy individuals.

"Collagen peptides benefit the biosynthesis of matrix molecules of tendons and ligaments" (improves elasticity of tendons and ligaments)[1]

Specific collagen peptides benefit the biosynthesis of matrix molecules of tendons and ligaments… a statistically significant increase in the elastin biosynthesis, the most prominent component of ligament matrix, was detected. Treatment leads to an approximately 50% higher elastin synthesis compared to the untreated control cells.

[1] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4045593/

Joint health for pets and domestic animals

It's not just humans that need nutrients to stay healthy; our much-loved pets and animals need them too. To protect and regenerate joints, and to maintain a strong and flexible skeletal system, our animal friends need collagen peptides as well!

Collagen peptides support healthy joints during growth. A number of excellent examples have been recorded with racehorses. They experience very high levels of mechanical joint abrasion and have been shown to benefit significantly from the use of our natural, allergen-free and easy digestible collagen peptides.

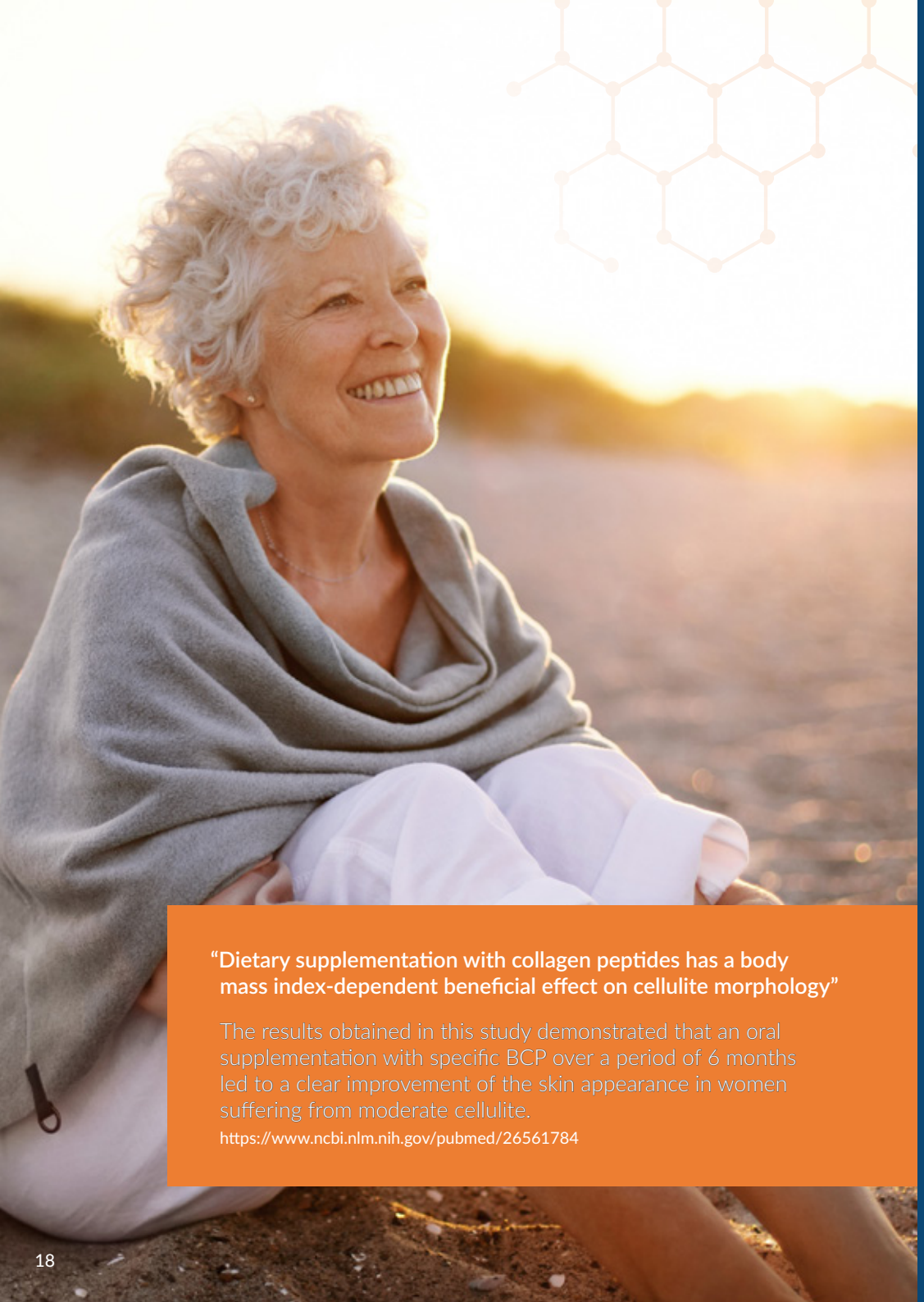
Studies show that collagen peptides are effective for reducing the signs and symptoms of arthritis in dogs.

"Arthritic dogs receiving **collagen** for 90 days showed significant declines in overall pain and pain during limb manipulation and lameness after physical exertion... and showed increase physical activity level"

Studies show that **collagen peptides** are effective for reducing the signs and symptoms of arthritis in dogs.[1]

"Collagen shown more effective for arthritic horses than glucosamine and chondroitin sulfate"[2]

[1] https://www.ncbi.nlm.nih.gov/pubmed/16050819
[2] https://thehorse.com/154472/collagen-shown-more-effective-for-arthritic-horses/



“Dietary supplementation with collagen peptides has a body mass index-dependent beneficial effect on cellulite morphology”

The results obtained in this study demonstrated that an oral supplementation with specific BCP over a period of 6 months led to a clear improvement of the skin appearance in women suffering from moderate cellulite.

https://www.ncbi.nlm.nih.gov/pubmed/26561784

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Awarded the title of APA Sports and Exercise Physiotherapist
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Masters in Sports Physiotherapy
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A board member of Spinal Cord Injuries Australia
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An APA member
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