

NPN 80092824

INGRÉDIENTS - PAR 6 CAPSULES

COLLAGÈNE HYDROLISÉ	2500 mg
COLLAGÈNE UC-II	10 mg
VELOURS DE BOIS DE CERF	200 mg
CUIVRE	500 mcg
VITAMINE C	250 mg
SILICE	50 mg
GOTU KOLA	500 mg
NEM	500 mg

INGRÉDIENTS NON-MÉDICINAUX

ACIDE STÉARIQUE VÉGÉTALES, CELLULOSE VÉGÉTALE.

Découvrez la science derrière notre produit pour la santé générale

SYNER COLLAGEN

Préparé à base de puissants ingrédients précurseurs de la production de collagène dans le corps, ce qui améliore l'état des tissus, ralentit leur vieillissement et favorise leur réparation. Syner Collagen est conçu pour fournir les éléments de base nécessaires au corps pour soutenir la production de nouvelles protéines de collagène et pour atténuer l'inflammation articulaire liée à l'arthrite.

100% sans herbicides, pesticides ou autres produits chimiques.



atplab

Reach Infinite
Vitality™

Une formule stratégique

Le Syner Collagen, c'est quoi ?

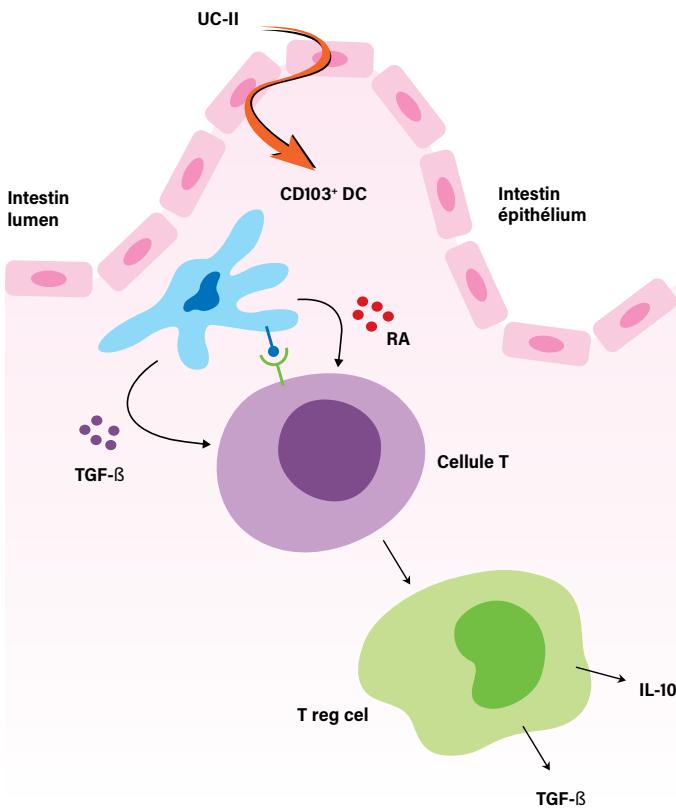
Un supplément de régénération de haute qualité qui réduit les douleurs articulaires et raffermit la peau en stimulant la production de collagène de type I et II.

Production de collagène de type I et II

Le collagène de type I est l'une des principales protéines fibreuses insolubles, avec l'élastine et l'acide hyaluronique, que l'on retrouve dans la matrice extracellulaire de la peau. Le collagène de Type II est la principale protéine structurelle des tissus conjonctifs du corps. On le retrouve dans les tendons et les ligaments, le cartilage, les os, les vaisseaux sanguins, l'intestin et les disques intervertébraux.

Bien que le collagène soit produit par le corps, la production diminue avec l'âge. L'effet du vieillissement sur la production de collagène se trouve également exacerbé par l'exposition quotidienne aux rayons ultraviolets (UV) et à la pollution. Résultat, au fil du temps, la demande de collagène dépasse la capacité naturelle de production du corps.

Êtes-vous âgé de plus de 25 ans ? Si oui, le processus de vieillissement est déjà enclenché et vous êtes susceptible de souffrir de problèmes articulaires et de dommages cutanés précoce.



Tregs, IL-10 et TGF-β aident à réparer et à construire de nouveaux cartilages



POSOLOGIE

RECOMMANDATION

Prendre 6 capsules par jour:
répartir les doses avec les repas.

Consommer régulièrement durant au moins 3 semaines pour observer des résultats.

Mises en garde : Consultez un médecin si des symptômes persistent ou s'aggravent. Consultez un médecin avant de consommer si vous êtes enceinte ou si vous allaitez.

Allergie : Contient des ingrédients qui proviennent d'œufs, de bœuf et de volaille.

Syner Collagen favorise :

- La régénération des cartilages et des tendons.
- Une guérison rapide après une intervention chirurgicale.
- Une récupération plus rapide après une blessure.
- Une peau ferme et d'allure jeune.

Collagène hydrolysé (type I) 2500 mg

Le collagène hydrolysé de Type I consiste en de petits peptides, au faible poids moléculaire, enrichis des acides aminés glycine, proline et hydroxyproline. En raison de son faible poids moléculaire, le collagène hydrolysé est facile à digérer, à absorber et à acheminer dans les tissus du corps humain. Plusieurs études ont démontré que les peptides de collagène peuvent être absorbés et transportés efficacement jusqu'au derme, la couche la plus profonde de la peau. Ainsi, ils peuvent stimuler la prolifération et la motilité des fibroblastes; induire une meilleure densité et un plus grand diamètre aux fibres de collagène; augmenter la production d'acide hyaluronique et renforcer la protection contre les rayons ultraviolets du soleil.

UCII®

Forme brevetée de Collagène de Type II non dénaturé 40 mg

(fournit 10 mg de collagène non dénaturé)

On suppose qu'il est absorbé par l'intestin grêle, d'où il déclenche une cascade de réactions cellulaires impliquant une réaction anti-inflammatoire des cytokines (TGF-B et IL-10) qui a leur tour entraînent les cellules chondrocytes (des cartilages) à produire du collagène de type II et d'autres protéines de la matrice extracellulaire à l'intérieur des articulations. Plusieurs études cliniques ont démontré que le collagène de type II non dénaturé UC-II® procure des bienfaits pour la santé articulaire des adultes qui souffrent d'arthrose et pour les adultes en bonne santé. La recherche démontre que la supplémentation quotidienne de 40 mg d'UC-II améliore les fonctions articulaires et aide à soulager les douleurs liées à l'arthrose. La même dose chez les sujets adultes en bonne santé a démontré une amélioration de la flexibilité articulaire et un apaisement des douleurs articulaires liées aux efforts physiques intenses.

Velours de bois de cerf 200 mg

Le velours de bois de cerf est le cartilage précalcifié de l'élan ou du cerf et est utilisé en médecine chinoise depuis des siècles. De manière générale, la recherche indique que le velours de bois de cerfs possède des propriétés pouvant favoriser la croissance des os et les renforcer en plus de possiblement fournir des bienfaits thérapeutiques au traitement de l'ostéoporose par son action sur la formation des os et son action anti-résorption osseuse.

Cuivre chélaté 5 mg

(fournit 500 mcg de cuivre élémentaire)

Le cuivre est nécessaire pour réguler à la hausse l'enzyme lysyl-oxydase, indispensable à la réticulation du collagène avec l'élastine. Ce processus est essentiel à la formation de tissus conjonctifs solides et flexibles. L'action de la lysyl-oxydase aide au maintien de l'intégrité des tissus conjonctifs en plus de jouer un rôle dans le développement des os.

Vitamine C 250 mg

La vitamine C est un cofacteur essentiel à deux enzymes clé nécessaires à la synthèse du collagène:

1) Prolyl-hydroxylase: stabilise la molécule de collagène

2) Lysyl-hydroxylase: renforce la matrice du collagène (par la réticulation)

En plus de son rôle dans la synthèse du collagène, la vitamine C agit comme un puissant antioxydant, elle neutralise les dérivés réactifs de l'oxygène nocifs, réduisant ainsi le taux de mort cellulaire chez les cellules chondrocytes (cartilage) en cas d'inflammation.

Silice 50 mg

(70 % extrait de bambou)

La silice est un oligo-élément que l'on retrouve naturellement dans le corps humain et qui provient majoritairement de l'alimentation. Selon les preuves scientifiques recensées au cours des trois dernières décennies, elle semble jouer un rôle important dans la santé des os et des tissus conjonctifs. Les mécanismes qui l'expliquent demeurent inconnus, mais des preuves existent de son implication dans la synthèse et/ou la stabilisation du collagène et dans la minéralisation de la matrice.

Gotu Kola 500 mg

(Centella asiatica)

Les principales composantes actives du Gotu Kola ou de la Centella asiatica sont les saponines (aussi appelées triterpénoïdes). Ces composantes activent la guérison des blessures en inhibant la surproduction de collagène à l'endroit de la plaie. Deux études ont démontré que la consommation orale de Centella asiatica réduit l'apparence des cicatrices chirurgicales de même que des vergetures chez la femme enceinte. Il semble également que la Centella asiatica favorise la régénération et la réparation des tissus lorsque consommé pendant la guérison d'une plaie.

Patented NEM® 500 mg

(Membrane naturelle de coquille d'oeuf, Glycosaminoglycans)

La formule brevetée de NEM® est composée de membrane naturelle de coquille d'oeuf que l'on retrouve entre la coquille calcifiée et l'albumine à l'intérieur de l'oeuf de poule. Cette membrane est principalement composée de collagène de type I et de glycosaminoglycans (sulfate de dermatane, sulfate de chondroïtine et acide hyaluronique). La membrane de coquille d'oeuf est reconnue pour limiter l'expression de diverses cytokines pro-inflammation, dont les médiateurs clé de l'inflammation l'interleukine-1 bêta (IL-1 β) et le facteur de nécrose tumorale alpha (TNF- α).

Une efficacité observée à la fois en contexte *in vitro* et *in vivo*. NEM® a démontré son efficacité et son innocuité dans de multiples études cliniques pour soulager la douleur articulaire et les raideurs, en à peine sept jours, chez les personnes en bonne santé et chez les personnes souffrant d'arthrose.

	Peau jeune		Peau après vieillissement intrinsèque		Vieillissement intrinsèque & Vieillissement photo	
	Section de peau d'histologie	Représentation schématique	Section de peau d'histologie	Représentation schématique	Section de peau d'histologie	Représentation schématique
Collagène						
Densité de collagène		Haute		Faible		Très faible
Lignes et sillons		Aucune		Modérée		Profonde

Graphique modifié à partir de: E.C.Naylor, Maturitas, 2011, 69, 249-256.

Références

Collagène bovin hydrolysé

Aguirre-Cruz G, León-López, Cruz-Gómez V, Jiménez-Alvarado R, Aguirre-Álvarez G. Collagen Hydrolysates for Skin Protection: Oral Administration and Topical Formulation. *Antioxidants (Basel)*. 2020 Feb;22(9):2.

Yazaki M, Ito Y, Yamada M, Goulas S, Teramoto S, Nakaya MA, Ohno S, Yamaguchi K. Oral Ingestion of Collagen Hydrolysate Leads to the Transportation of Highly Concentrated Gly-Pro-Hyp and Its Hydrolyzed Form of Pro-Hyp into the Bloodstream and Skin. *J Agric Food Chem*. 2017 Mar 22;65(11):2315-2322.

Liu X, Machado GC, Eyles JP, Ravi V, Hunter DJ. Dietary supplements for treating osteoarthritis: a systematic review and meta-analysis. *Br J Sports Med*. 2018 Feb;52(3):167-175.

Inoue N, Sugihara F, Wang X. Ingestion of bioactive collagen hydrolysates enhance facial skin moisture and elasticity and reduce facial ageing signs in a randomised double-blind placebo-controlled clinical study. *J Sci Food Agric*. 2016 Sep;96(12):4077-81.

Proksch E, Schunck M, Zague V, Segger D, Degwert J, Oesser S. Oral intake of specific bioactive collagen peptides reduces skin wrinkles and increases dermal matrix synthesis. *Skin Pharmacol Physiol*. 2014;27(3):113-9.

Schunck M, Zague V, Oesser S, Proksch E. Dietary Supplementation with Specific Collagen Peptides Has a Body Mass Index-Dependent Beneficial Effect on Cellulite Morphology. *J Med Food*. 2015 Dec;18(12):1340-8.

Figueres Juher T, Basés Pérez E. [An overview of the beneficial effects of hydrolysed collagen intake on joint and bone health and on skin ageing]. *Nutr Hosp*. 2015 Jul 18;32 Suppl 1:62-6.

Formule brevetée UCI

Lugo JP, Saiyed ZM, Lane NE. Efficacy and tolerability of an undenatured type II collagen supplement in modulating knee osteoarthritis symptoms: a multicenter randomized, double-blind, placebo-controlled study. *Nutr J*. 2016 Jan 29;15:14.

Crowley DC, Lau FC, Sharma P, Evans M, Guthrie N, Bagchi M, Bagchi D, Dey DK, Raychaudhuri SP. Safety and efficacy of undenatured type II collagen in the treatment of osteoarthritis of the knee: a clinical trial. *Int J Med Sci*. 2009 Oct 9;6(6):312-21.

Lugo JP, Saiyed ZM, Lau FC, Molina JP, Pakdaman MN, Shamie AN, Udani JK. Undenatured type II collagen (UC-II®) for joint support: a randomized, double-blind, placebo-controlled study in healthy volunteers. *J Int Soc Sports Nutr*. 2013 Oct 24;10(1):48.

Bakilan F, Armagan O, Ozgen M, Tascioglu F, Bolluk O, Alatas O. Effects of Native Type II Collagen Treatment on Knee Osteoarthritis: A Randomized Controlled Trial. *Eurasian J Med*. 2016 Jun;48(2):95-101.

Velours de bois de cerf

Li N, Zhang M, Drummen GP, Zhao Y, Tan YF, Luo S, Qu XB. Sika Deer Antler Collagen Type I-Accelerated Osteogenesis in Bone Marrow Mesenchymal Stem Cells via the Smad Pathway. *Evid Based Complement Alternat Med*. 2016;2016:2109204.

Zhang, L. Z., Xin, J. L., Zhang, X. P., Fu, Q., Zhang, Y., Zhou, Q. L. (2013). The anti-osteoporotic effect of velvet antler polypeptides from Cervus elaphus Linnaeus in ovariectomized rats. *J. Ethnopharmacol.* 150, 181-186.

He J, Li X, Wang Z, Bennett S, Chen K, Xiao Z, Zhan J, Chen S, Hou Y, Chen J, Wang S, Xu J, Lin D. Therapeutic Anabolic and Anticatabolic Benefits of Natural Chinese Medicines for the Treatment of Osteoporosis. *Front Pharmacol*. 2019 Nov 25;10:1344.

Vitamine C

Paxton JZ, Grover LM, Baar K. Engineering an in vitro model of a functional ligament from bone to bone. *Tissue Eng Part A* 2010;16:3515-25

DePhillipo NN, Aman ZS, Kennedy MI2, Begley JP, Moatshe G2, LaPrade RF. Efficacy of Vitamin C Supplementation on Collagen Synthesis and Oxidative Stress After Musculoskeletal Injuries: A Systematic Review. *Orthop J Sports Med*. 2018 Oct 25;6(10):2325967118804544.

Manela-Azulay M, Bagatin E. Cosmeceuticals vitamins. *Clin Dermatol*. 2009;27(5):469-474.

Phillips CL, Combs SB, Pinnell SR. Effects of ascorbic acid on proliferation and collagen synthesis in relation to the donor age of human dermal fibroblasts. *J Invest Dermatol*. 1994;103(2):228-232.

Gotu Kola
Hu S, Belcaro G, Hosoi M, Feragalli B, Luzzi R, Dugall M. Postpartum stretchmarks: repairing activity of an oral Centella asiatica supplementation (Centellicum®). *Minerva Ginecol*. 2018 Oct;70(5):629-634.

Cotellese R, Hu S, Belcaro G, Ledda A, Feragalli B, Dugall M, Hosoi M, Ippolito E. Centella asiatica (Centellicum®) facilitates the regular healing of surgical scars in subjects at high risk of keloids. *Minerva Chir*. 2018 Apr;73(2):151-156.

Bylka W, Znajdek-Awizeń P, Studzińska-Sroka E, Brzezińska M. Centella asiatica in cosmetology. *Postepy Dermatol Alergol*. 2013 Feb;30(1):46-9.

Gohil KJ, Patel JA, Gaijar AK. Pharmacological Review on Centella asiatica: A Potential Herbal Cure-all. *Indian J Pharm Sci*. 2010 Sep;72(5):546-56.

Extrait de bambou (silice)

Sripanyakorn S, Jugdaohsingh R, Dissayabutr W, Anderson SH, Thompson RP, Powell JJ. The comparative absorption of silicon from different foods and food supplements. *Br J Nutr*. 2009;102:825-834.

Calomme MR, D'Haese PC, Vingerhoets R, Lamberts LV, De Broe ME, Van Hoorebeke DA, et al. Absorption of silicon in healthy subjects. In: Collyer P, Bräiter P, Negretti De Bräiter V, Khassanova L, Etienne JC, editors. *Metal Ions in Biology and Medicine*. V. Paris: John Libbey Euro Text; 1998. pp. 228-232.

Jugdaohsingh R. Silicon and bone health. *J Nutr Health Aging*. 2007 Mar-Apr;11(2):99-110. Review.

NEM

Ruff KJ, DeVore DP, Leu MD, Robinson MA. Eggshell membrane: a possible new natural therapeutic for joint and connective tissue disorders. Results from two open-label human clinical studies. *Clin Interv Aging*. 2009;4:235-40.

Ruff KJ, Winkler A, Jackson RW, DeVore DP, Ritz BW. Eggshell membrane in the treatment of pain and stiffness from osteoarthritis of the knee: a randomized, multicenter, double-blind, placebo-controlled clinical study. *Clin Rheumatol*. 2009 Aug;28(8):907-14.

Ruff KJ, Morrison D, Duncan SA, Back M, Aydogan C, Theodosakis J. Beneficial effects of natural eggshell membrane versus placebo in exercise-induced joint pain, stiffness, and cartilage turnover in healthy, postmenopausal women. *Clin Interv Aging*. 2018 Feb 19;13:285-295.

Baker JR, Balch DA. A study of the organic material of hen's-egg shell. *Biochem J*. 1962;82:352-361.

Benson KF, Ruff KJ, Jensen GS. Effects of Natural Eggshell Membrane (NEM) on cytokine production in cultures of peripheral blood mononuclear cells: increased suppression of tumor necrosis factor-a levels after in vitro digestion. *J Med Food*. 2012;15(4):360-368.

Ruff KJ, DeVore DP. Reduction of pro-inflammatory cytokines in rats following 7-day oral supplementation with a proprietary eggshell membrane-derived product. *Mod Res Inflamm*. 2014;3(1):19-25.

NPN 80092824

INGREDIENTS - PER 6 CAPSULES

HYDROLYZED COLLAGEN (BOVINE)	2500 mg
UC-II® (CHICKEN)	10 mg
DEER ANTLER VELVET	200 mg
CHELATED COPPER	500 mcg
VITAMIN C (SODIUM ASCORBATE)	250 mg
SILICA (BAMBOO EXTRACT 70%)	50 mg
GOTU KOLA (10% ASIATICOSIDE)	500 mg
NEM (NATURAL EGG SHELL MEMBRANE)	500 mg
NON-MEDICINAL INGREDIENTS	
VEGETABLE STEARIC ACID, VEGETABLE CELLULOSE.	

Discover the science behind
our product for general health

SYNER COLLAGEN

Powerful ingredients that are precursors to production of collagen in the body to improve the status and quality of tissue healing and aging. Syner Collagen is designed to provide the body with the necessary raw materials to help support the generation of new collagen protein and to attenuate the associated inflammatory actions typically associated with arthritis based joint inflammation.

100% without herbicides,
pesticides or other chemicals.



atplab

Reach Infinite
Vitality™

Formulation Strategy

What is Syner Collagen?

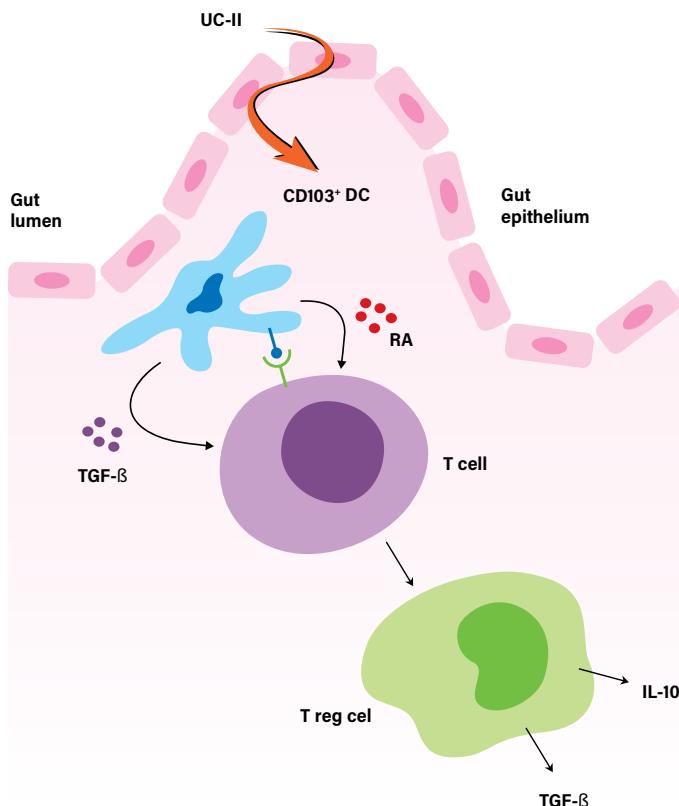
An advanced collagen regeneration supplement that decreases joint pain and increases skin health by supporting Type I and II collagen production.

Type I and II collagen production

Type I collagen is the major insoluble fibrous protein found with elastin and hyaluronic acid in the extracellular matrix of the skin. Type II collagen is the main structural protein of the connective tissues in the body. It is found in tendons and ligaments, cartilage, bones, blood vessels, the gut, and intervertebral discs.

Although collagen is produced by the body, its production slows as we age. The effect of aging on collagen production is further exacerbated by daily exposure to ultraviolet (UV) radiation and environmental pollution. So, over time, the demand for collagen production outstrips the body's endogenous (natural) collagen supply.

Are you 25 years old or greater? Then the aging process has already started and you may be susceptible to joint problems and premature skin damage.



Tregs, IL-10 and TGF-β helps repair and build new cartilage



PROPER DOSING

RECOMMENDATION

6 capsules in divided doses daily with meals.

Use for at least 3 weeks consistently to see desired effects.

Medical Disclaimer: If symptoms persist or worsen, consult a health professional. Also if you are pregnant or breastfeeding, consult prior to using the product.

Allergy: Contains ingredients from egg, bovine, and poultry.

Syner Collagen Promotes:

- Cartilage and tendon regeneration
- Rapid healing after surgery
- Shorter recovery time after injuries
- Firmer, more youthful skin

Hydrolyzed (Type I) Collagen 2500 mg

Hydrolysed Type I collagen consists of small peptides with low molecular weight, enriched with the amino acids glycine, proline, and hydroxyproline. Due to its low molecular weight, hydrolysed collagen is highly digestible, absorbed and distributed in the different tissues of the human body. Several experiments have shown that collagen peptides can be efficiently absorbed and distributed to the dermis, the deepest layer of the skin, where they can stimulate the proliferation and motility of fibroblasts, induce an increase in the density and diameter of collagen fibres, increase hyaluronic acid production and activate protection against the sun's UVA radiation.

Patented UCII® Undenatured Type II Collagen 40 mg

(providing 10 mg undenatured collagen)

UC-II® is the patented undenatured form of type II collagen. It is postulated to be absorbed in the small intestine, where it initiates a cell-signaling cascade involving anti-inflammatory cytokines (TGF-B and IL-10) which then trigger chondrocytes (cartilage cells) to produce type II collagen and other extracellular matrix proteins in the joints. Several clinical trials have demonstrated that UC-II® undenatured type II collagen offers joint health benefits for those with osteoarthritis and healthy adults. Research shows that daily supplementation with 40 mg of UC-II® safely improves joint function and promotes pain relief in those with osteoarthritis. The same dose in healthy subjects has been reported to promote joint flexibility and alleviate the joint pain that may arise from strenuous exercise.

Deer Antler Velvet 200 mg

Deer antler velvet is the precalcified cartilaginous antler of Elk or Deer and has resided in the Chinese medical pharmacopoeia for centuries. Overall, the research indicates that deer antler velvet contains properties to strengthen bone, promote bone growth, and may provide therapeutic benefit for the treatment of osteoporosis by bone formation and bone antiresorptive activity.

Chelated Copper 5 mg

(providing 500 mcg elemental copper)

Copper is needed to upregulate the cuproenzyme lysyl oxidase, which is required for the cross-linking of collagen and elastin. This process is essential for the formation of strong and flexible connective tissue. The action of lysyl oxidase helps maintain the integrity of connective tissue and also plays a role in bone formation.

Vitamin C 250 mg

Vitamin C is the essential cofactor for two key enzymes required for collagen synthesis: 1) prolyl hydroxylase, which stabilizes the collagen molecule; and 2) lysyl hydroxylase, which provides strength to the collagen matrix (via crosslinking). In addition to its role in collagen synthesis, vitamin C acts as a powerful antioxidant, neutralizing deleterious reactive oxygen species, thereby decreasing the rate of chondrocyte ('cartilage cell') death during inflammation.

Silica 50 mg

(70% Bamboo Extract)

Silica is a naturally occurring trace element in the human body derived predominantly from the diet. Accumulated evidence over the past 3 decades suggests it plays an important role in bone and connective tissue health. Mechanisms are unclear but evidence exists of its involvement in collagen synthesis and/or its stabilization and in matrix mineralization.

Gotu Kola 500 mg

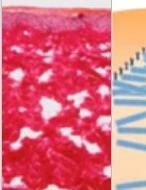
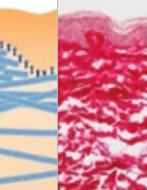
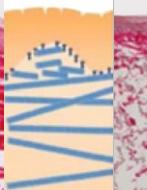
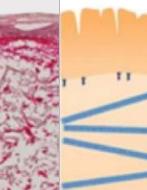
(Centella asiatica)

The primary active constituents of Gotu Kola or Centella asiatica are saponins (also called triterpenoids). These compounds drive wound healing by inhibiting the over-production of collagen at the wound site. Two studies have shown oral Centella asiatica improves surgical scars as well as stretch marks in pregnant women. Centella asiatica appears to promote tissue regeneration and tissue remodelling when taken during skin wound healing.

Patented NEM® 500 mg

(Natural Egg Shell Membrane Glycosaminoglycans)

Patented NEM® is the natural eggshell membrane found between the calcified shell and the albumin in chicken eggs. It is primarily composed of Type I collagen and glycosaminoglycans (e.g., dermatan sulfate, chondroitin sulfate, and hyaluronic acid). Eggshell membrane is reported to reduce the expression of various pro-inflammatory cytokines, including the key mediators of inflammation interleukin-1 beta (IL-1 β) and tumor necrosis factor-alpha (TNF- α) both in vitro and in vivo. NEM® has demonstrated safety and efficacy in multiple clinical trials in relieving joint pain and stiffness, in as little as 7 days, in healthy humans and those with osteoarthritis.

	Young Skin		Skin After Intrinsic Ageing		Intrinsic Ageing & Photo Ageing	
	Histology Skin Section	Schematic Representation	Histology Skin Section	Schematic Representation	Histology Skin Section	Schematic Representation
Collagen						
Collagen Density		High		Low		Very Low
Lines & Furrows		None		Moderate		Deep

Graph modified from: E.C. Naylor, Maturitas, 2011, 69, 249-256.

References

Hydrolyzed Bovine Collagen

Aguirre-Cruz G, León-López, Cruz-Gómez V, Jiménez-Alvarado R, Aguirre-Álvarez G. Collagen Hydrolysates for Skin Protection: Oral Administration and Topical Formulation. *Antioxidants (Basel)*. 2020 Feb;22(9):2.

Yazaki M, Ito Y, Yamada M, Goulas S, Teramoto S, Nakaya MA, Ohno S, Yamaguchi K. Oral Ingestion of Collagen Hydrolysate Leads to the Transportation of Highly Concentrated Gly-Pro-Hyp and Its Hydrolyzed Form of Pro-Hyp into the Bloodstream and Skin. *J Agric Food Chem*. 2017 Mar 22;65(11):2315-2322.

Liu X, Machado GC, Eyles JP, Ravi V, Hunter DJ. Dietary supplements for treating osteoarthritis: a systematic review and meta-analysis. *Br J Sports Med*. 2018 Feb;52(3):167-175.

Inoue N, Sugihara F, Wang X. Ingestion of bioactive collagen hydrolysates enhance facial skin moisture and elasticity and reduce facial ageing signs in a randomised double-blind placebo-controlled clinical study. *J Sci Food Agric*. 2016 Sep;96(12):4077-81.

Proksch E, Schunck M, Zague V, Segger D, Degwert J, Oesser S. Oral intake of specific bioactive collagen peptides reduces skin wrinkles and increases dermal matrix synthesis. *Skin Pharmacol Physiol*. 2014;27(3):113-9.

Schunck M, Zague V, Oesser S, Proksch E. Dietary Supplementation with Specific Collagen Peptides Has a Body Mass Index-Dependent Beneficial Effect on Cellulite Morphology. *J Med Food*. 2015 Dec;18(12):1340-8.

Figueres Juher T, Basés Pérez E. [An overview of the beneficial effects of hydrolysed collagen intake on joint and bone health and on skin ageing]. *Nutr Hosp*. 2015 Jul 18;32 Suppl 1:62-6.

Patented UCI

Lugo JP, Saiyed ZM, Lane NE. Efficacy and tolerability of an undenatured type II collagen supplement in modulating knee osteoarthritis symptoms: a multicenter randomized, double-blind, placebo-controlled study. *Nutr J*. 2016 Jan 29;15:14.

Crowley DC, Lau FC, Sharma P, Evans M, Guthrie N, Bagchi M, Bagchi D, Dey DK, Raychaudhuri SP. Safety and efficacy of undenatured type II collagen in the treatment of osteoarthritis of the knee: a clinical trial. *Int J Med Sci*. 2009 Oct 9;6(6):312-21.

Lugo JP, Saiyed ZM, Lau FC, Molina JP, Pakdaman MN, Shamie AN, Udani JK. Undenatured type II collagen (UC-II®) for joint support: a randomized, double-blind, placebo-controlled study in healthy volunteers. *J Int Soc Sports Nutr*. 2013 Oct 24;10(1):48.

Bakilan F, Armagan O, Ozgen M, Tascioglu F, Bolluk O, Alatas O. Effects of Native Type II Collagen Treatment on Knee Osteoarthritis: A Randomized Controlled Trial. *Eurasian J Med*. 2016 Jun;48(2):95-101.

Deer Antler Velvet

Li N, Zhang M, Drummen GP, Zhao Y, Tan YF, Luo S, Qu XB. Sika Deer Antler Collagen Type I-Accelerated Osteogenesis in Bone Marrow Mesenchymal Stem Cells via the Smad Pathway. *Evid Based Complement Alternat Med*. 2016;2016:2109204.

Zhang, L. Z., Xin, J. L., Zhang, X. P., Fu, Q., Zhang, Y., Zhou, Q. L. (2013). The anti-osteoporotic effect of velvet antler polypeptides from *Cervus elaphus Linnaeus* in ovariectomized rats. *J. Ethnopharmacol.* 150, 181–186.

He J, Li X, Wang Z, Bennett S, Chen K, Xiao Z, Zhan J, Chen S, Hou Y, Chen J, Wang S, Xu J, Lin D. Therapeutic Anabolic and Anticatabolic Benefits of Natural Chinese Medicines for the Treatment of Osteoporosis. *Front Pharmacol*. 2019 Nov 25;10:1344.

Vitamin C

Paxton JZ, Grover LM, Baar K. Engineering an in vitro model of a functional ligament from bone to bone. *Tissue Eng Part A* 2010;16:3515–25

DePhillipo NN, Aman ZS, Kennedy MI2, Begley JP, Moatshe G2, LaPrade RF. Efficacy of Vitamin C Supplementation on Collagen Synthesis and Oxidative Stress After Musculoskeletal Injuries: A Systematic Review. *Orthop J Sports Med*. 2018 Oct 25;6(10):2325967118804544.

Manela-Azulay M, Bagatin E. Cosmeceuticals vitamins. *Clin Dermatol*. 2009;27(5):469–474.

Phillips CL, Combs SB, Pinnell SR. Effects of ascorbic acid on proliferation and collagen synthesis in relation to the donor age of human dermal fibroblasts. *J Invest Dermatol*. 1994;103(2):228–232.

Goto Kola
Hu S, Belcaro G, Hosoi M, Feragalli B, Luzzi R, Dugall M. Postpartum stretchmarks: repairing activity of an oral Centella asiatica supplementation (Centellicum®). *Minerva Ginecol*. 2018 Oct;70(5):629-634.

Cotellese R, Hu S, Belcaro G, Ledda A, Feragalli B, Dugall M, Hosoi M, Ippolito E. Centella asiatica (Centellicum®) facilitates the regular healing of surgical scars in subjects at high risk of keloids. *Minerva Chir*. 2018 Apr;73(2):151-156.

Bylka W, Znajdek-Awizeń P, Studzińska-Sroka E, Brzezińska M. Centella asiatica in cosmetology. *Postepy Dermatol Alergol*. 2013 Feb;30(1):46-9.

Gohil KJ, Patel JA, Gaijar AK. Pharmacological Review on Centella asiatica: A Potential Herbal Cure-all. *Indian J Pharm Sci*. 2010 Sep;72(5):546-56.

Bamboo Extract (silica)

Sripanyakorn S, Jugdaohsingh R, Dissayabutr W, Anderson SH, Thompson RP, Powell JJ. The comparative absorption of silicon from different foods and food supplements. *Br J Nutr*. 2009;102:825–834.

Calomme MR, D'Haese PC, Vingerhoets R, Lamberts LV, De Broe ME, Van Hoorebeke DA, et al. Absorption of silicon in healthy subjects. In: Collyer P, Bräter P, Negretti De Bräter V, Khassanova L, Etienne JC, editors. *Metal Ions in Biology and Medicine*. V. Paris: John Libbey Euro Text; 1998. pp. 228–232.

Jugdaohsingh R. Silicon and bone health. *J Nutr Health Aging*. 2007 Mar-Apr;11(2):99-110. Review.

NEM

Ruff KJ, DeVore DP, Leu MD, Robinson MA. Eggshell membrane: a possible new natural therapeutic for joint and connective tissue disorders. Results from two open-label human clinical studies. *Clin Interv Aging*. 2009;4:235-40.

Ruff KJ, Winkler A, Jackson RW, DeVore DP, Ritz BW. Eggshell membrane in the treatment of pain and stiffness from osteoarthritis of the knee: a randomized, multicenter, double-blind, placebo-controlled clinical study. *Clin Rheumatol*. 2009 Aug;28(8):907-14.

Ruff KJ, Morrison D, Duncan SA, Back M, Aydogan C, Theodosakis J. Beneficial effects of natural eggshell membrane versus placebo in exercise-induced joint pain, stiffness, and cartilage turnover in healthy, postmenopausal women. *Clin Interv Aging*. 2018 Feb 19;13:285-295.

Baker JR, Balch DA. A study of the organic material of hen's-egg shell. *Biochem J*. 1962;82:352-361.

Benson KF, Ruff KJ, Jensen GS. Effects of Natural Eggshell Membrane (NEM) on cytokine production in cultures of peripheral blood mononuclear cells: increased suppression of tumor necrosis factor-a levels after in vitro digestion. *J Med Food*. 2012;15(4):360-368.

Ruff KJ, DeVore DP. Reduction of pro-inflammatory cytokines in rats following 7-day oral supplementation with a proprietary eggshell membrane-derived product. *Mod Res Inflamm*. 2014;3(1):19-25.