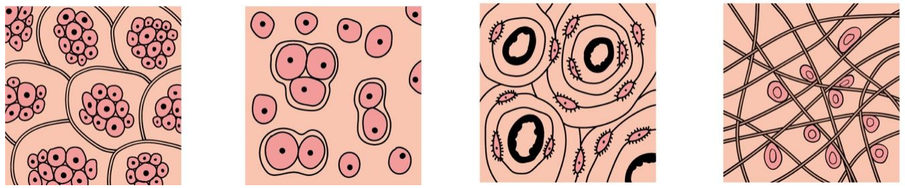
Agenyz®

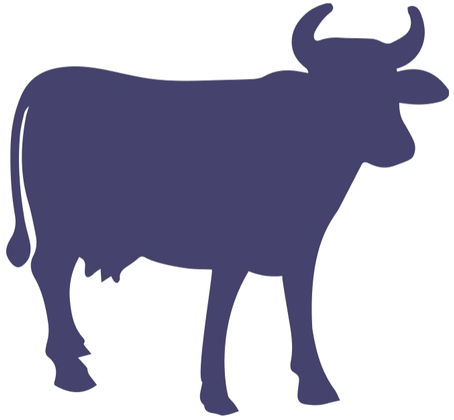
COLLAGEN BLEND PRO PEPTIDES + BIOTIN

WHAT IT IS COLLAGEN?

Collagen is only found in animals.
It is absent in plants, bacteria, viruses, protozoa and fungi.



Collagen is the main component of **connective tissue** and the most abundant **protein** in mammals, making up 25% to 45% of all proteins in the body.



✓ Yes

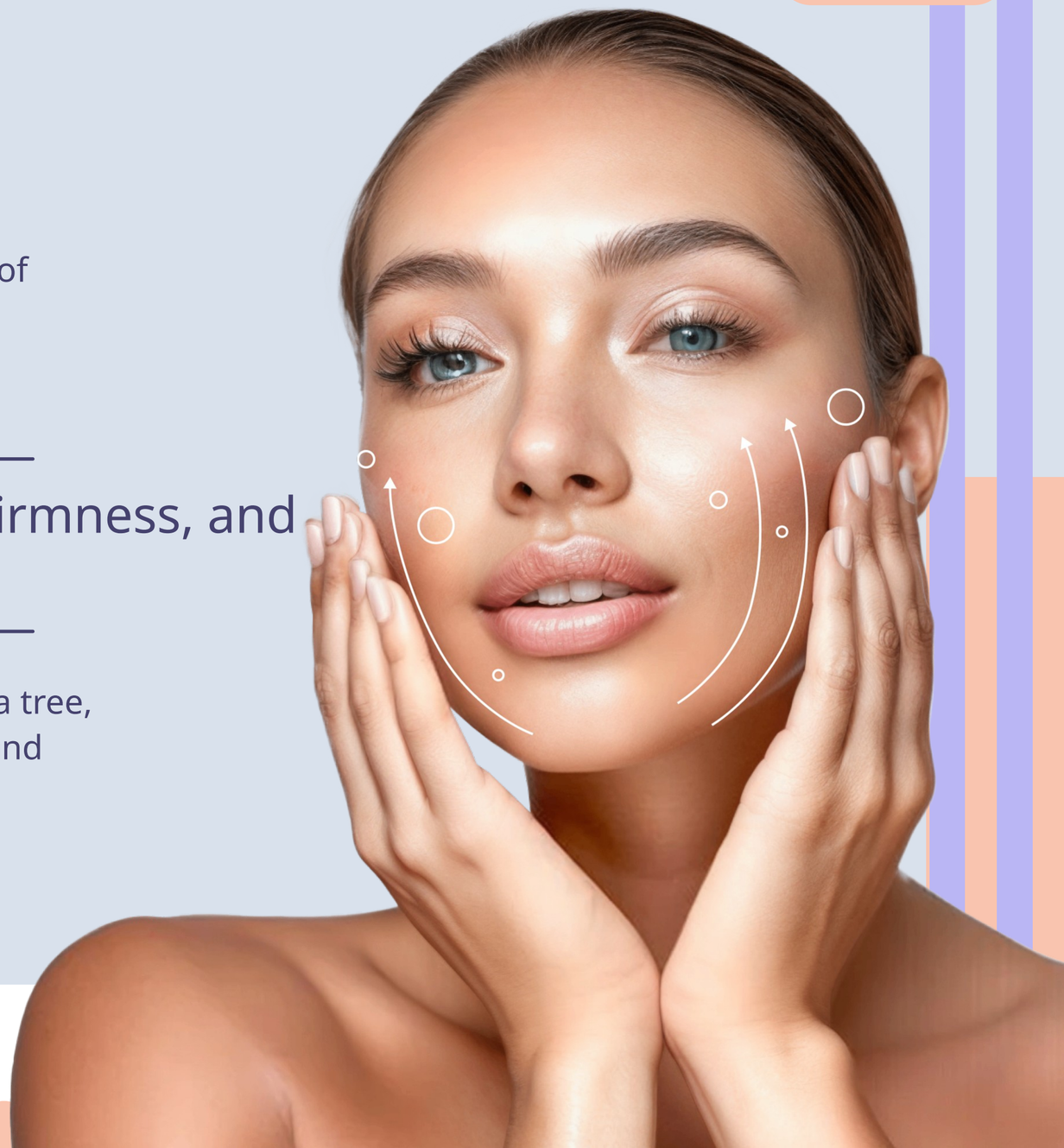
✗ No

Collagen is the main structural protein of our body.

It is not only a component of the skin and connective tissue but also of hair, nails, joints, bone and cartilage tissue, as well as blood vessels, cornea, and sclera.

Collagen is responsible for the youthfulness, firmness, and elasticity of the skin.

Collagen fibres form the framework of our body: like the roots of a tree, they fill the space between cells, facilitating the movement of fluids and substances, and maintain the strength and elasticity of tissues.



COLLAGEN IS NOT ONLY ABOUT BEAUTY...

Collagen

A 70kg man **has 3,700g** of collagen, **1,600g of** which is **in the bones.**

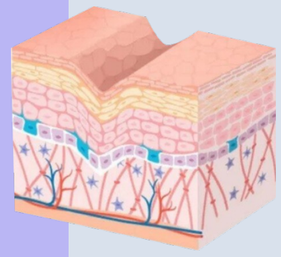
Every day, **96.5 g of** collagen is formed by breaking down old collagen and re-synthesising new collagen from it.

Collagen is made up of of three amino acids: **glycine, proline/lysine,** and **another amino acid** that determines the type of collagen.

Glycine and **proline are** synthesised in the body, but **lysine** must be consumed through food. This is an essential amino acid that is difficult to replenish with a plant protein.

Collagen

COLLAGEN IN THE BODY



Collagen is a protein that forms the connective tissue of the entire body (tendons, bones, cartilage, dermis, etc.), which provides its strength and elasticity.

Joints/ligaments

Collagen deficiency can lead to tissue breakdown in the joints, arthritis, etc. The strength of ligaments also depends on collagen

Tendons and muscles

Collagen deficiency can lead to weakness in tendons and muscles

Bones

Collagen helps to absorb calcium, its deficiency can lead to increased bone fragility

Internal organs

Collagen is the connective substance of all cells in the body, helping to maintain tissue structure and functionality of internal organs

Hair and nails

Are derivatives of the epidermis, and collagen influences their strength and health

Teeth

Collagen is the main substance of gum tissue, helping to prevent gum and tooth problems

Eyes

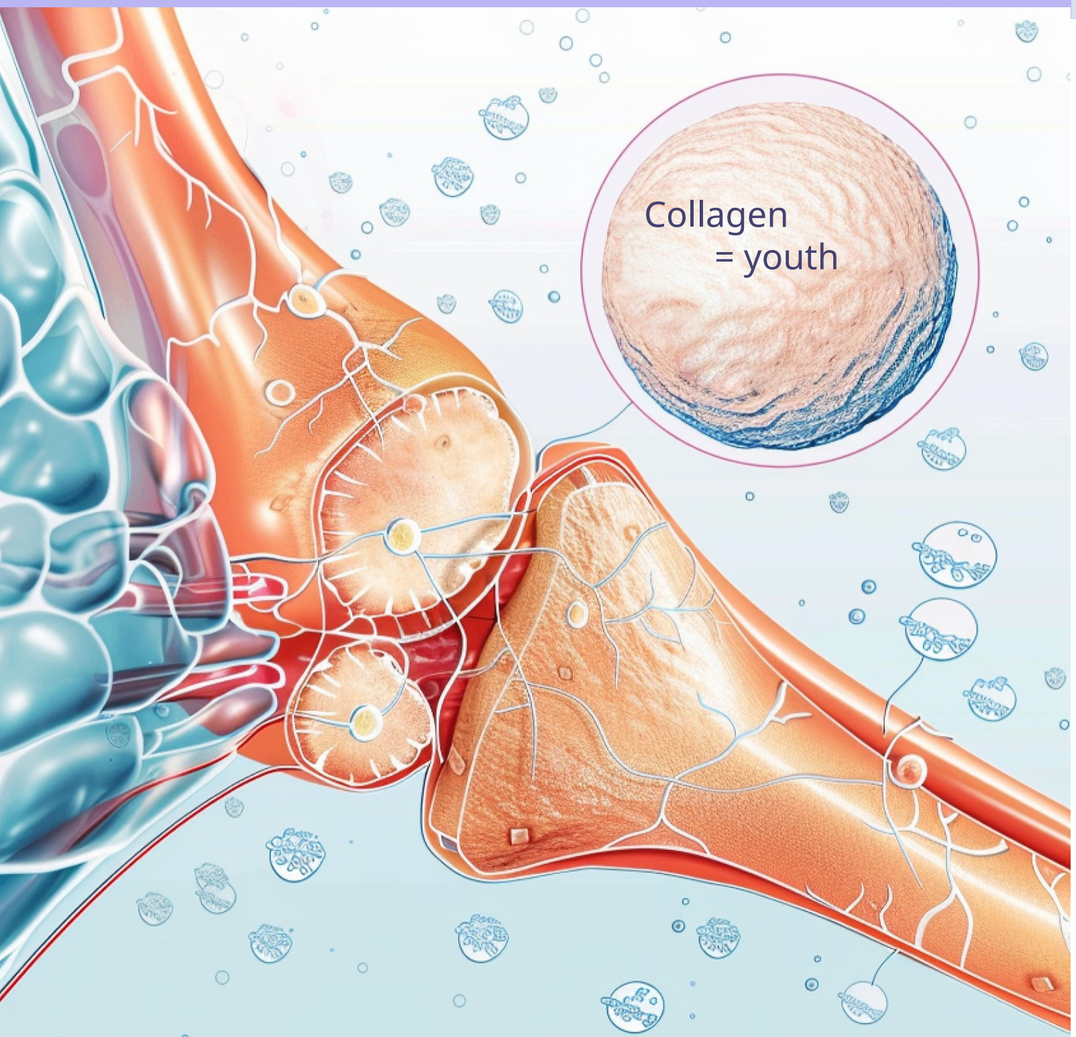
Collagen is the main substance of the cornea and conjunctiva tissue of the eyes, preventing vision problems

Skin

90% of age-related skin problems are associated with collagen loss

TYPES OF COLLAGEN

To date, 28 types of collagen have been identified. All of them play an important role in different parts of our bodies.



They differ in the sequence of amino acids of which they are composed and in the kind of connective tissue they form. Some types are beneficial for the **skin, others** for **joints, some for other organs in the body.**

Types I and II collagens account for more than 90% of all collagen. Type I collagen is responsible for **skin, nails, hair, bones, the cornea of the eye, the liver, arteries and dentin (the top layer of teeth).**

Type II collagen is the **foundation of cartilage and tendons**, as well as a significant protein for gel-forming proteins such as the **vitreous body of the eyes and the** pulpy nucleus of **intervertebral discs**.

It is an effective substance for **reducing joint stiffness** and **increasing mobility**. The lack of this type of collagen causes joint pain, which is often associated with the wear and tear of cartilage tissue.

Studies have shown that **type II collagen helps reduce** joint **pain** in osteoarthritis, osteoarthritis and rheumatoid arthritis.

THE MAIN FUNCTION OF COLLAGEN IS THE "BINDING“ OF CELLS

This is even reflected in the name of the substance: **“kolla”**, which means "**glue”** in Greek**.**

It is precisely collagen that forms and "binds" the tissues of tendons, cartilage, and bones.

COLLAGEN FORMATION

Collagen synthesis is a complex enzymatic multi-step process that must be provided with a sufficient amount of vitamins and minerals.

The rather complex synthesis of this protein is carried out by special connective tissue cells - **fibroblasts**, collecting it from amino acids that we get from protein foods.

Collagen forms insoluble filaments (fibrils), that are part of the intercellular matrix and connective tissues.

Collagen synthesis requires not only amino acids, but also other micronutrients: **vitamin C, iron, copper, zinc, magnesium, and silicon.**

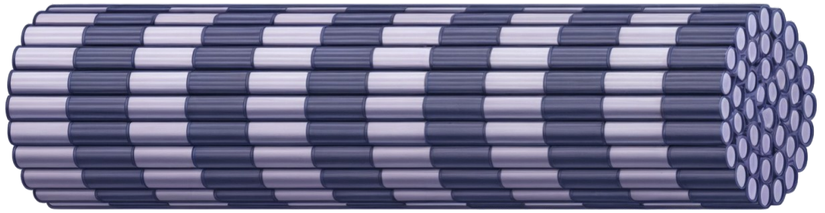
As a result of a deficiency of **ascorbic acid** (vitamin C), abnormal collagen, which is more **loose,** is synthesised. These changes underlie the development of **scurvy**.

The better the synthesis of collagen, the stronger our bones, hair, and nails become, and the younger and healthier our skin looks.

Amino acid sequence

Collagen molecule

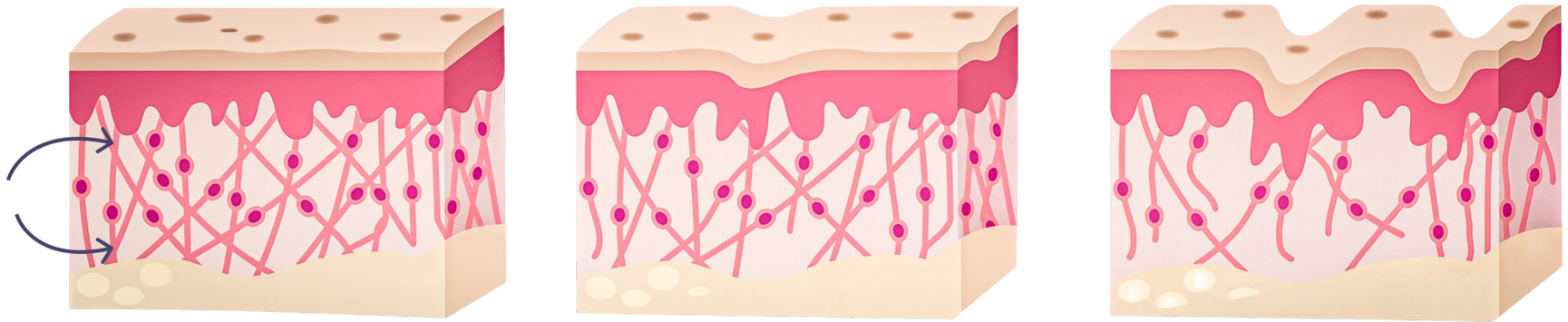
Collagen fibre



COLLAGEN MAKES UP 75% OF THE DRY MASS OF THE OUTER LAYER OF THE SKIN

RESPONSIBLE FOR ITS FIRMNESS AND ELASTICITY

COLLAGEN
ELASTIN



HIGH

COLLAGEN AND
ELASTIN DENSITY

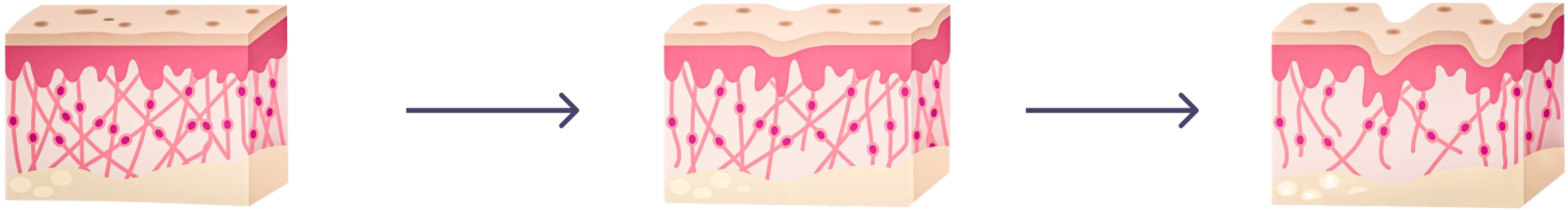
MEDIUM

COLLAGEN AND
ELASTIN DENSITY

LOW

COLLAGEN AND
ELASTIN DENSITY

WITH AGE, THE DENSITY OF COLLAGEN AND ELASTIN DECREASES



HIGH

MEDIUM

LOW

20 YEARS	25 YEARS	30 YEARS	40 YEARS	50 YEARS	50+ YEARS
PEAK COLLAGEN PRODUCTION	REDUCTION IN COLLAGEN PRODUCTION	COLLAGEN DEFICIENCY	LOSS OF 10-20% COLLAGEN.	LOSS OF MORE THAN 50% COLLAGEN.	REDUCTION OF 2% COLLAGEN ANNUALLY

WITH AGE, THE PRODUCTION OF COLLAGEN DECREASES

A particularly pronounced decrease in collagen production is observed in women during menopause.

The collagen-elastin framework gradually thins and becomes coarser, resulting in aging skin that loses its tone, becomes easily injured, and bones that become more fragile. Ligaments lose their elasticity, increasing the likelihood of injuries.

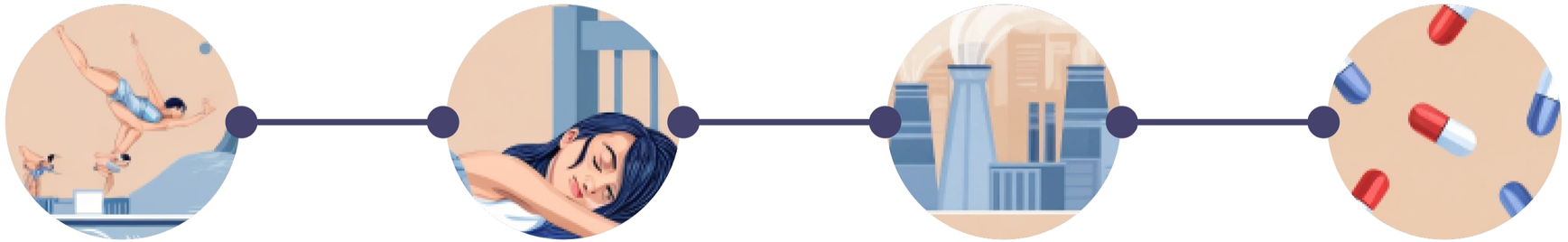
For example, after the age of 40, the volume of collagen decreases by about one and a half to two
times compared to the age of twenty.

OTHER REASONS FOR DECREASED COLLAGEN PRODUCTION

Depression

Alcohol abuse

Smoking



Contact with chlorinated water

Lack of sleep

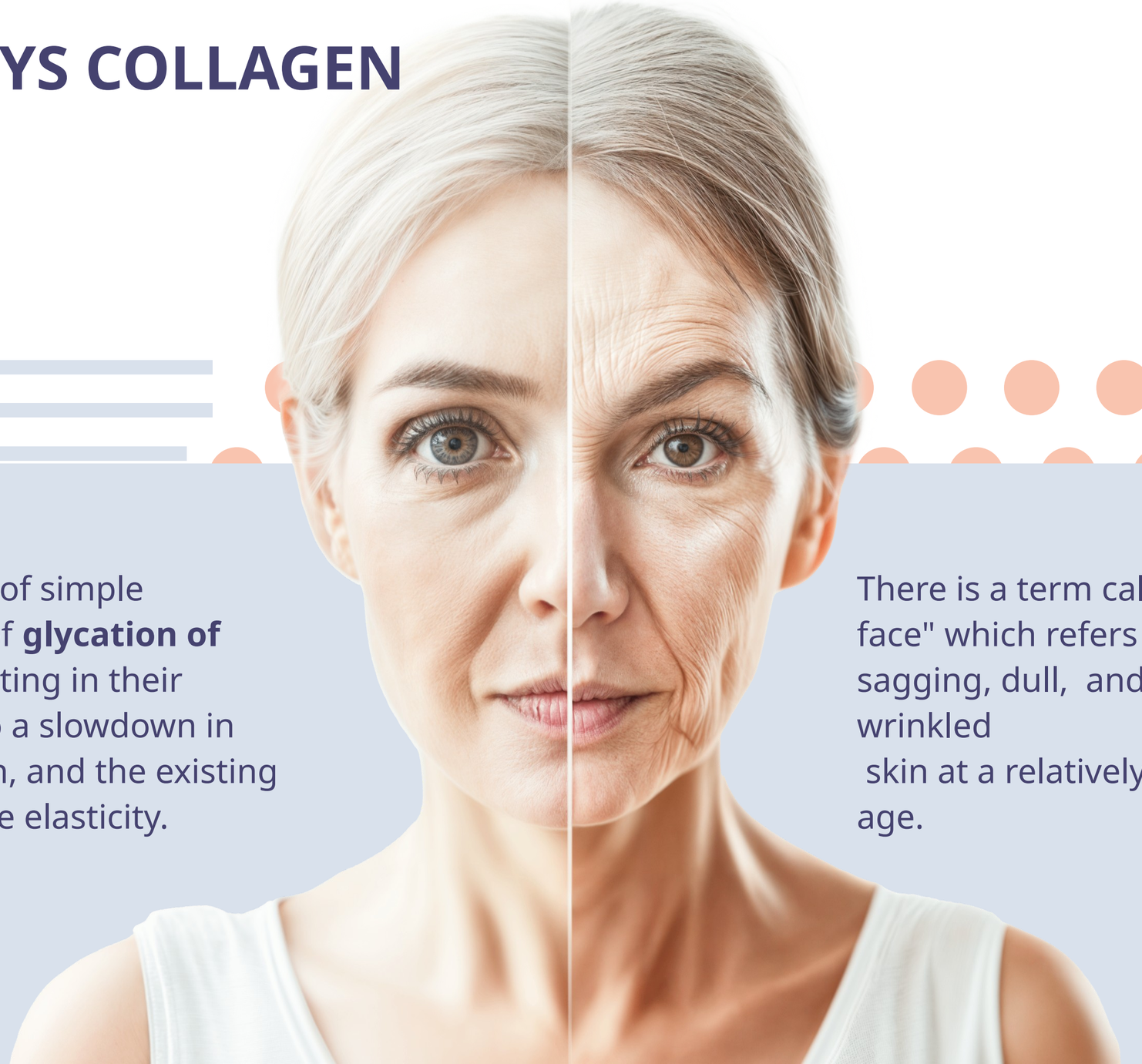
Unfavourable environment and UV radiation

Vitamin deficiency

Cortisol, the stress hormone, stimulates collagen breakdown!

SUGAR DESTROYS COLLAGEN

With excessive consumption of simple carbohydrates, the process of **glycation of collagen fibers** occurs, resulting in their "sugar coating". This leads to a slowdown in the synthesis of new collagen, and the existing fibers become brittle and lose elasticity.



There is a term called "sugar face" which refers to sagging, dull, and fine wrinkled skin at a relatively young age.

WHAT IS THE PURPOSE OF COLLAGEN IN DIETARY SUPPLEMENTS?

- Studies have shown that collagen supplements help prevent **osteoporosis** and **osteoarthritis** associated with collagen deficiency.

- Strengthen joints and relieve soreness.

- When **combined with strength training, collagen supplements improve body composition, muscle quality and endurance, even in menopausal women and older men.**

- Promote rapid healing of **postoperative** scars, including plastic surgery scars.

- Help rejuvenate the skin by **increasing elasticity, firmness, moisture and reduce wrinkles.**

Long-term intake is required to achieve the desired effects until science offers a more effective solution.

COLLAGEN BLEND PRO PEPTIDES + BIOTIN

Introducing an advanced product that combines the power of hydrolysed collagen from five different sources with natural ingredients for optimal absorption.

This unique blend is designed to support the health and beauty of your skin, hair, nails and joints.

COLLAGEN BLEND PRO PEPTIDES

CONTENTS:

5

5 TYPES OF HYDROLYSED COLLAGEN PEPTIDES

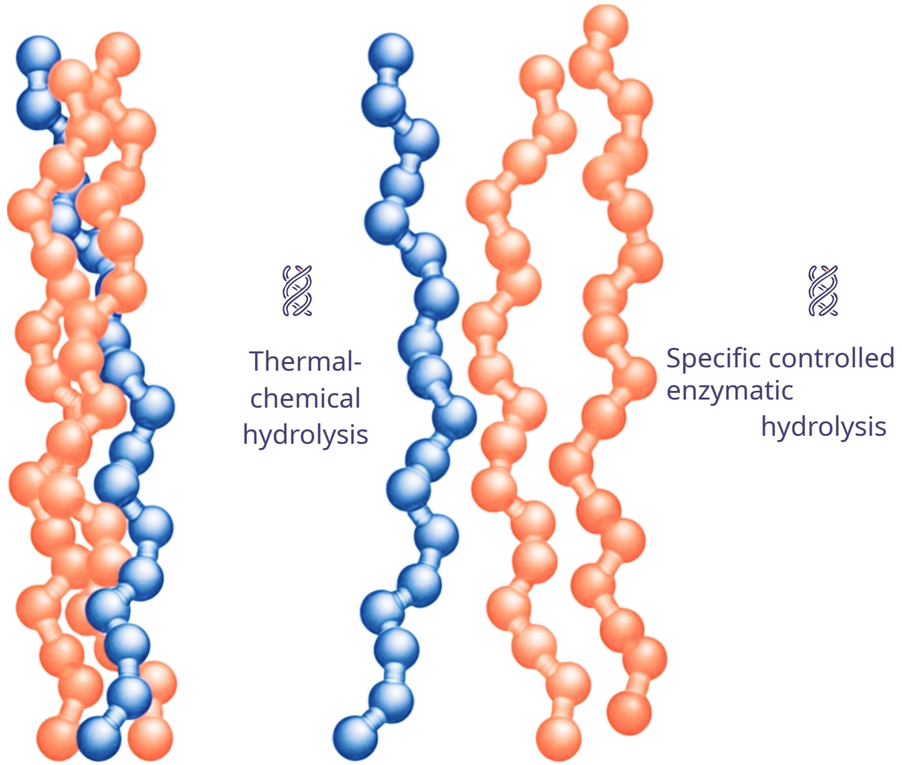
1. BEEF COLLAGEN TYPE I
2. BEEF COLLAGEN TYPE II
3. FISH COLLAGEN TYPE I
4. CHICKEN COLLAGEN TYPE II
5. COLLAGEN FROM THE MEMBRANE EGGSHELL MEMBRANE COLLAGEN (TYPES I, V AND X)

- CURCUMIN
- MANGANESE
- MUMIE
- COPPER
- ZINC
- HYALURONIC ACID
- SILICON
  FROM YOUNG BAMBOO SHOOTS
- BIOTIN
- VITAMIN C
  FROM ROSEHIP EXTRACT

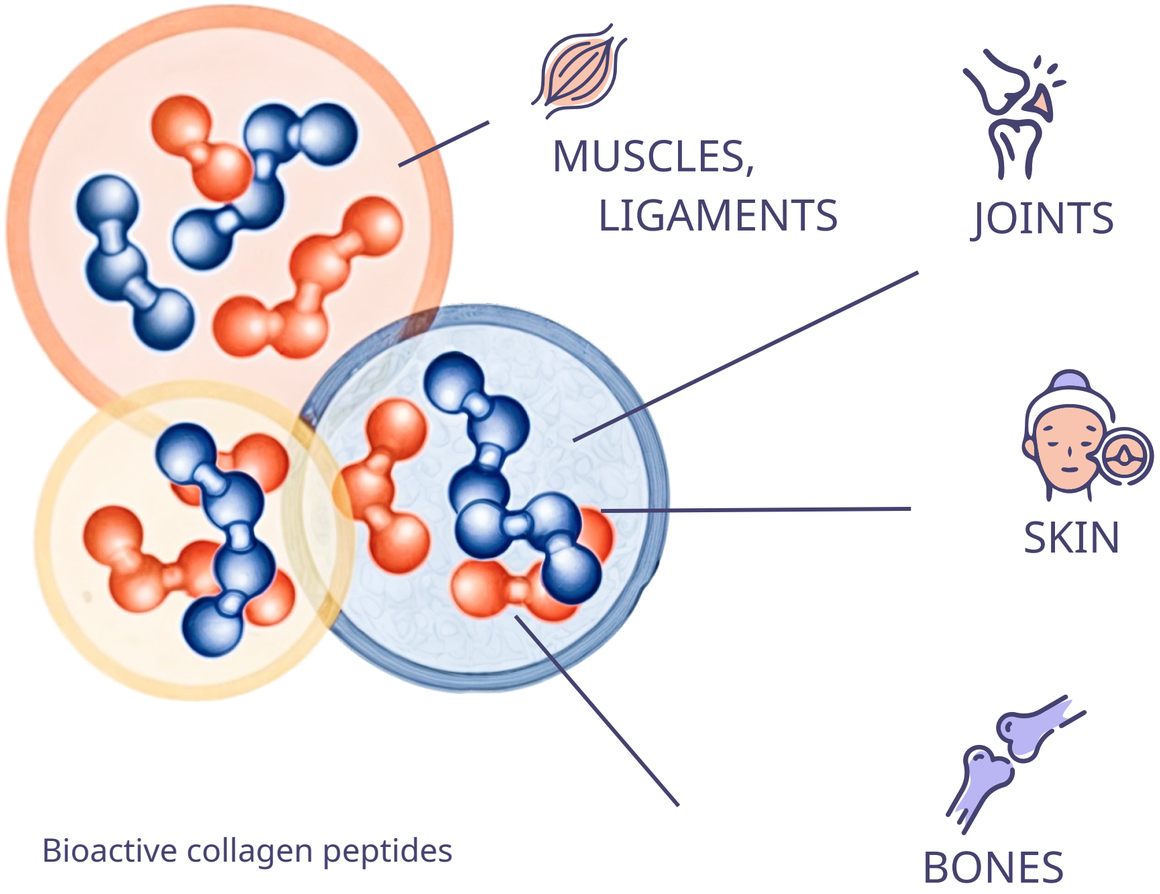
Collagen

HYDROLYSED COLLAGEN PEPTIDES

Hydrolysed collagen peptides are collagen that has been broken down into smaller chains of amino acids (peptides) through the process of hydrolysis, making the collagen more bioavailable and easier for the body to absorb.



Natural collagen in the raw material



Bioactive collagen peptides

HYDROLYSED COLLAGEN PEPTIDES

This means that we will be able to experience maximum benefits from taking such collagen, supporting the health of our skin, hair, nails, joints and much more.

Hydrolysed collagen is a sign of high quality raw materials

COLLAGEN

BLEND PRO PEPTIDES + BIOTIN

Is a combination of hydrolysed bovine, chicken, fish and eggshell membrane collagen.

This blend provides different types of collagen, including types I, II, V and X, each with their own unique benefits.

BOVINE COLLAGEN
TYPE I

BEEF COLLAGEN
TYPE II

FISH COLLAGEN
TYPE I

CHICKEN COLLAGEN
TYPE II

COLLAGEN FROM EGGSHELL MEMBRANE

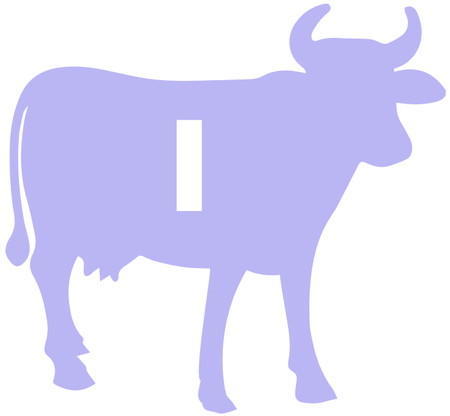
(TYPE I, V AND X)

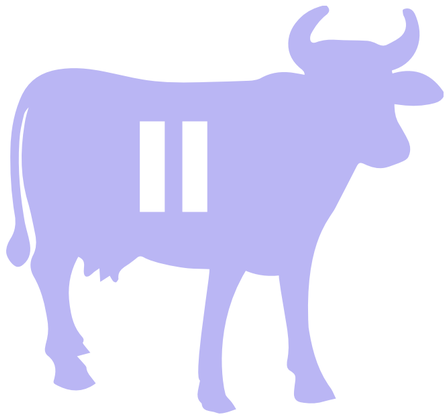
Collagen

COMPOSITION OF COLLAGEN HYDROLYSATES

Bovine Collagen Type I: supports healthy skin, hair and nails, bone health, promotes wound healing.

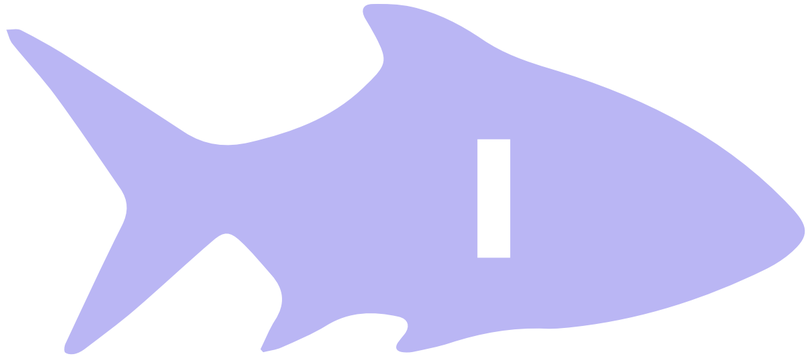
Bovine Collagen Type II: helps relieve symptoms associated with osteoarthritis by supporting cartilage health, reducing joint pain and improving joint function.





COMPOSITION OF COLLAGEN HYDROLYSATES

Fish Collagen Type I: highly bioavailable due to its small particle size, dissolves well, effectively replenishes collagen levels.



Composition of collagen hydrolysates

Collagen

Chicken Collagen Type II:

- **It contains chondroitin sulphate and hyaluronic acid**. These components are crucial for supporting cartilage and joint function.
- Helps to improve **joint flexibility, reduce inflammation** and support overall joint health.
- Restores **joint and cartilage tissues**, increases their elasticity, flexibility, resistance to damage.
- Reduces **recovery** time **in case of injuries, during intensive physical exertion**, and after surgical procedures.

- Reduces pain syndrome, minimises oxidative and inflammatory processes in the musculoskeletal system.
- **It strengthens and thickens connective tissue,** which solves the problems of joint hypermobility and weakness of periarticular ligaments.
- Stops degenerative and catabolic changes in the musculoskeletal system.
- Eliminates joint cracking.

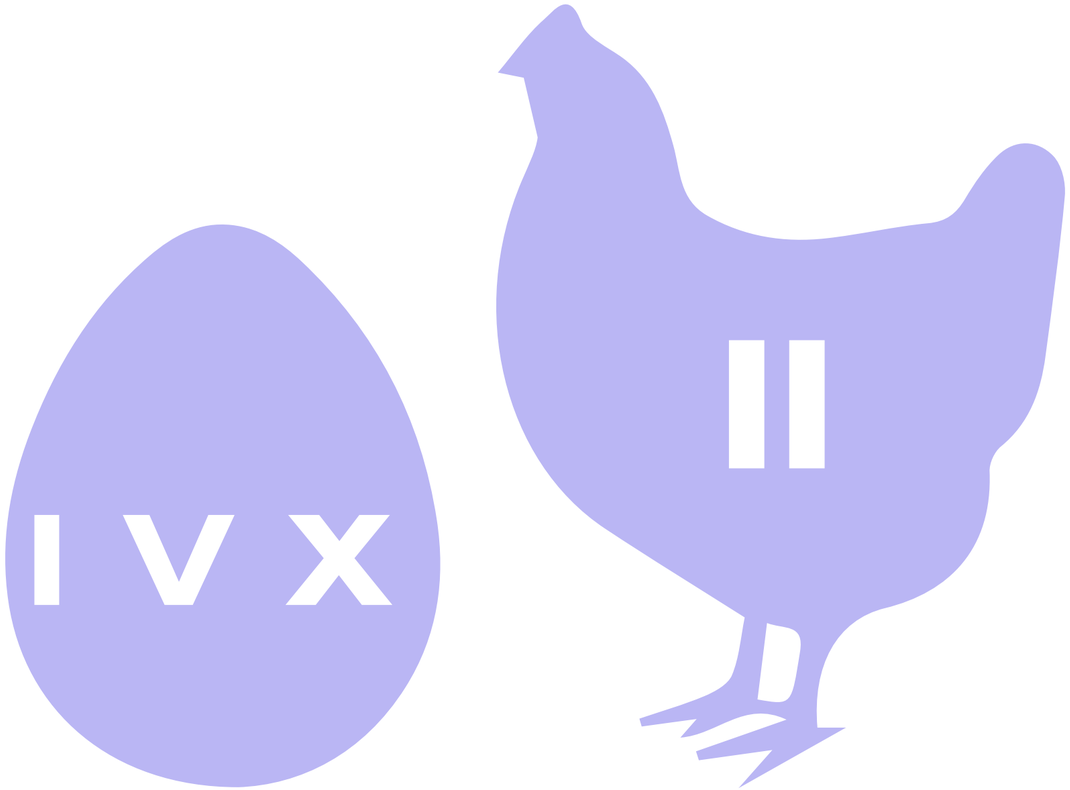
EGGSHELL MEMBRANE COLLAGEN

Collagen

Type V collagen is abundant in eye tissues, while X is found in healing joints and bones.

Collagen from eggshell membrane is a thin layer that separates the hard shell from the inner shell of the egg.

It is rich in collagen types I, V and X that support healthy skin, hair, eyes, joints, bones and intestines**.**



EGGSHELL MEMBRANE

Collagen

Helps improve nail and hair care, skin care
Has an anti-ageing effect

Contains:

- Enzymatically hydrolysed collagen and elastin peptides,
- Chondroitin sulfate,
- Glucosamine,
- Hyaluronic acid, lysozyme,
- Sulphur-containing amino acids,
- Branched-chain amino acids

- Fine grinding
- High density
- High flowability
- Water solubility

Collagen

EGGSHELL MEMBRANE COLLAGEN

Improves skin elasticity
Reduces skin pigmentation
Improves skin barrier
skin barrier function
(reduces transdermal water loss)
Promotes protection
against UV rays

Prevents the penetration of
harmful substances
Provides access to nutrients
and moisture
Prevents skin dehydration

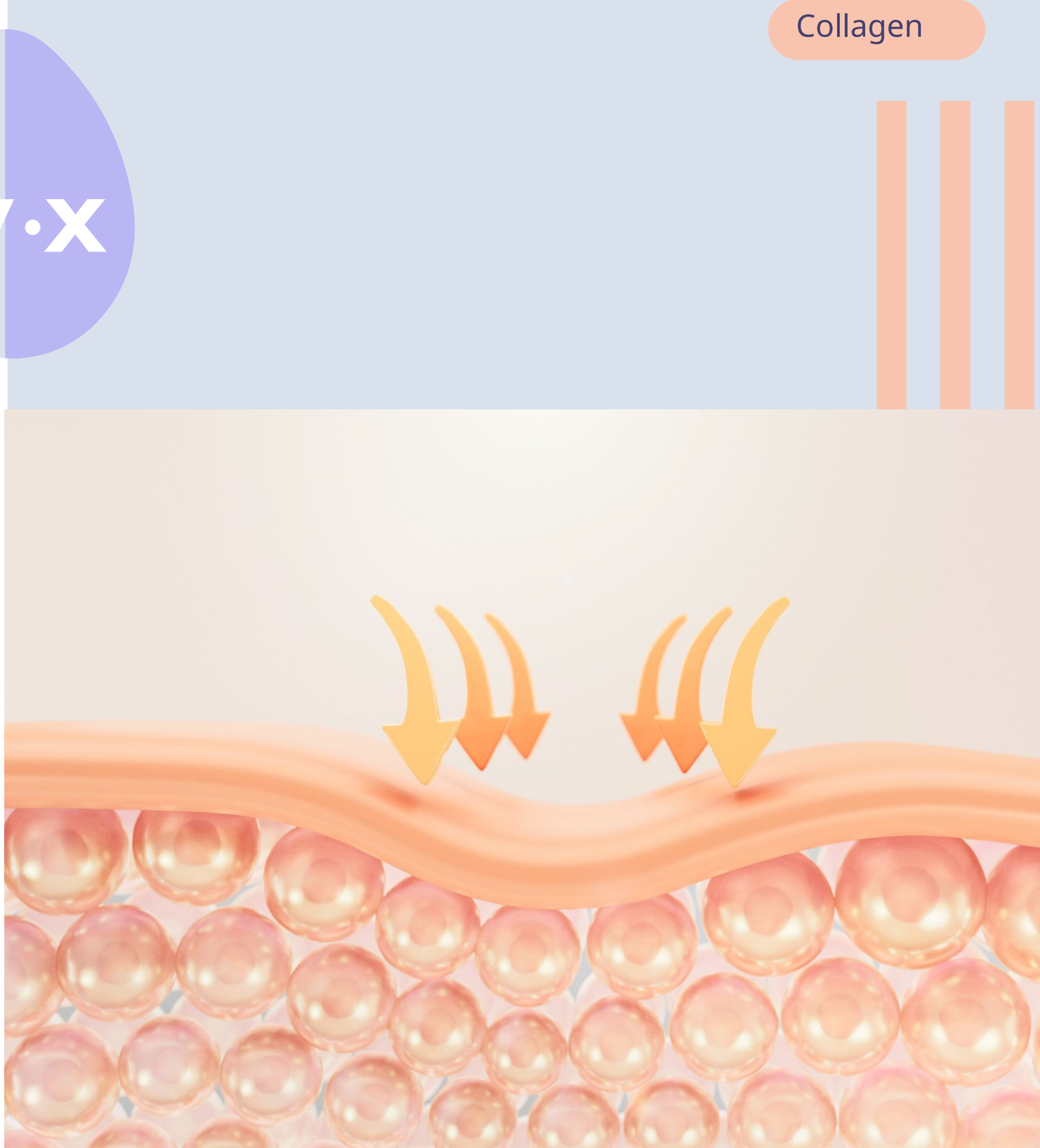
EGGSHELL MEMBRANE COLLAGEN

Helps reduce inflammation in the skin
Blocks enzymes that break down collagen and elastin

- Promotes cellular production of ATP

Possesses antioxidant activity
Promotes synthesis of endogenous collagen and hyaluranic acid

- Promotes skin regeneration



Collagen

SCIENTIFIC DATA

https://pubmed.ncbi.nlm.nih.gov/33742704/

Effects of hydrolyzed collagen supplementation on skin aging: a systematic review and meta-analysis

Int J Dermatol 2021 Dec; Roseane B de Miranda, Patrícia Weimer, Rochele C Rossi

Nineteen studies were selected, involving 1125 participants aged 20 to 70 years (95% women).

According to the results, taking hydrolysed collagen for 90 days is effective in slowing down skin aging, as it reduces wrinkles, improves skin elasticity, and moisturizes the skin.

SCIENTIFIC DATA

Collagen

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8308696/

A Double-Blind, Randomized, Placebo-Controlled Trial to Evaluate the Efficacy of a Hydrolyzed Chicken Collagen Type II Supplement in Alleviating Joint Discomfort

Nutrients. 2021 Jul; Anaam Mohammed and Siran He

In this randomised trial, adults with joint discomfort who were not taking painkillers throughout the study were given either supplements with hydrolysed chicken collagen type II or placebo.

The results of this study show that hydrolysed chicken collagen type II is effective in reducing joint pain and stiffness, as well as improving joint mobility. It was also noted that this is a safe nutraceutical for adults suffering from arthritis and other joint discomforts.

SCIENTIFIC DATA

Collagen

https://pubmed.ncbi.nlm.nih.gov/34443468/

Oral Supplementation with Hydrolyzed Fish Cartilage Improves the Morphological and Structural Characteristics of the Skin: A Double-Blind, Placebo-Controlled Clinical Study

Molecules 2021 Aug; P. M. Berardo, R. S. Barboza, L. Kakuda

The purpose of this study was to evaluate the clinical efficacy of oral administration of hydrolysed fish collagen in improving chronological and photoaging changes in the skin.

A total of 46 healthy women aged between 45 to 59 years wee included in the study.

Measurements of skin wrinkling, echogenicity, and dermal thickness, as well as morphological and structural characteristics of the skin, were performed in the nasolabial area of the face before and after a 90-day treatment period using high-resolution imaging, ultrasound, and reflectance confocal microscopy images.

Significant reduction in wrinkles and increase in dermal echogenicity were observed after a 90-day treatment period with hydrolysed fish collagen compared to placebo and baseline values.

In addition, analysis of reflection confocal microscopy (RCM) images showed improved in collagen morphology and reduction in elastosis after the administration of hydrolysed fish collagen.

SCIENTIFIC DATA

https://pubmed.ncbi.nlm.nih.gov/36986062/

Collagen Supplementation for Joint Health: The Link between Composition and Scientific

KnowledgeNutrients 2023 Mar D. Martínez, E. Larrión, N. Rodríguez, P. Gálvez-Martín.

Hydrolysed collagen may contain bioactive peptides that can reach joint tissues and have **chondroprotective effects.**

Collagen

CURCUMA LONGA

TURMERIC ROOT EXTRACT (CURCUMIN)

Powerful antioxidant with strong anti-inflammatory properties

- Helps to reduce pain and inflammation in the joints, accelerate the healing of wounds and damaged intestinal mucosa, and therefore - improving the absorption of nutrients.
- Helps to reduce inflammation. Effective in inflammatory problems with bones and joints.
- Stimulates the growth of new neurons and inhibits various degenerative processes.
- Improves endothelial function, which lines the walls of blood vessels.
- Helps reduce cholesterol levels.

Collagen

MUMIO

MOUNTAIN RESIN SHILAJIT

Mumie has a complex and unique chemical structure, containing over 40 elements from Dmitri Mendeleev's periodic table in a biologically active form.

Vitamins and minerals present in mumie have maximum bioavailability.

Collagen

MUMIO

MOUNTAIN RESIN SHILAJIT

The composition of mumio found in different locations significantly varies. The main component is fulvic acid, and the rest of the composition includes benzoquinones, humic acids, glycosides, fatty acids, polyphenolic compounds, resins, salts, steroids, flavonoids, phospholipids and essential oils, as well as around 40 trace elements.

Special attention should be given to the rare earth elements in its composition.

The main beneficial properties of mumio are manifested in the positive effect on regeneration and metabolism in the body. This product is involved in synthesis at the cellular level. It is used to treat bruises, wounds and broken bones, supports collagen production, restores bones and tendons, and also reduces swelling and pain.

VITAMIN C

FROM ROSEHIP EXTRACT

Vitamin C - acts as a cofactor for enzymes involved in the production of collagen and promotes the formation of strong collagen fibres.

In addition to vitamin C, rosehip contains bioflavonoids, natural antioxidants that enhance the absorption of ascorbic acid.

Collagen

SILICON

FROM YOUNG BAMBOO SHOOTS EXTRACT

Bamboo extract is a natural source of silicic acid.

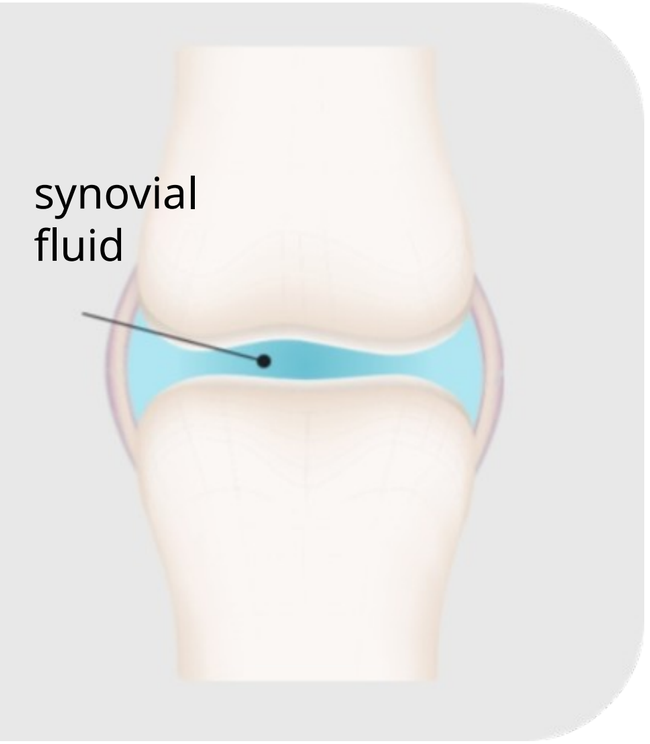
Silicon is an element that determines the properties of flexible structures: connective tissue of tendons, blood vessel walls, gastrointestinal tract, internal secretion glands, cartilage, synovial fluid in joints, valves in the venous system, and the cardiovascular system.

Enhances the synthesis of collagen fibres, keratin and epithelial tissue, gives elasticity and firmness to tissues.

Collagen

SODIUM HYALURONATE

Sodium hyaluronate -
is a salt of hyaluronic acid that reduces friction in the joints, improves the flexibility of joint cartilage and supports the skin's ability to retain water.



Biotin (Vitamin B7)

Collagen

THE BEAUTY & METABOLIC COFACTOR

Biotin is more than just a beauty vitamin; it’s the metabolic catalyst that ensures every dose of collagen peptides is fully activated and utilized for visible transformation. It bridges cellular energy, protein synthesis, and structural beauty, amplifying the effects of collagen from within.

Biotin is essential for keratin synthesis, the key structural protein in hair and nails. When combined with collagen peptides, it supports stronger strands, reduced breakage, and a more resilient nail structure.

Functioning as a metabolic coenzyme, biotin supports the breakdown and utilization of amino acids and fatty acids, the raw materials that feed collagen and keratin production. This process maximizes the body’s ability to rebuild and rejuvenate tissues efficiently.

By converting nutrients into usable cellular energy, biotin fuels fibroblasts, the specialized cells responsible for collagen formation. When paired with Vitamin C (a collagen cofactor) and essential minerals (for structural reinforcement), Biotin ensures accelerated collagen synthesis and optimal tissue renewal.

MINERALS

Manganese – is necessary for the activation of prolidase, an enzyme that is necessary for the synthesis of the amino acid proline for the formation of collagen in human skin cells.
Zinc – is an essential mineral that plays a crucial role in the production and synthesis of collagen, protecting it from free radical damage.
Copper – is an essential mineral for the synthesis of mature elastin and collagen, as well as for wound healing, blood vessel formation and skin regeneration.

COLLAGEN BLEND PRO PEPTIDES + BIOTIN

RECOMMENDED FOR:

For rapid cell regeneration after damage (bone fractures, ligament tears, skin cuts).

Slowing down skin ageing: reducing wrinkles and improving skin firmness and elasticity, reducing hair and nail brittleness.

Strengthening the connective tissue in the body, especially the joints, intestinal walls and blood vessels. Relieving pain and reducing inflammation in the joints.

Reducing the formation of intervertebral hernias and protrusions.
Preventing the formation of inguinal, umbilical, and anterior abdominal wall hernias.
Reduction of intestinal inflammation in leaky gut syndrome.

Recommended for regular use for all individuals over 40 years old.

BENEFITS AND BIOINNOVATION

Contains the most essential types of collagen for the human body.

In the form of easily soluble powder without lumps.

Easily absorbable collagen hydrolysates

Enriched with vitamin C and minerals (zinc, copper and manganese) essential for collagen production.

Provides
Five sources of hydrolysed collagen.

Non-GMO,
sugar and preservatives.

Natural mango and orange flavour for a pleasant taste.

Contains organic silicon from young bamboo shoots.

Advantages and Bioinnovations

Method of use:
Dissolve 1 sachet in drinking water (200-250 ml) at room temperature.

Stir thoroughly and enjoy a pleasant and healthy drink.

20 pcs