

What Collagen Can Do For You

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How Collagen Works

Previously collagen could not be produced in a form that could pass directly through the intestine wall and into the blood-stream intact and the only way was by injection. **The problem with collagen injections** is that they are **only effective locally** around the site of the injection, just plumping up the skin, and are **very expensive**.

Now that collagen has been produced in a form that can **pass directly into the blood-stream intact**, a whole **new anti-ageing system** has become available to everyone.

Once we pass our late 20's our body's have less collagen than they could use and a slow decline starts, but by ingesting **Hydrolysat Collagen** into the blood-stream, we are changing that situation.

Surprisingly, the presence of the collagen that you have ingested also **stimulates the body's own collagen production**.

What Happens

During the first few hours of sleep we go into what is called the Alpha Sleep phase of the brains sleep cycle. During this cycle the brain's pituitary gland (a vital part of the endocrine system) releases Human Growth Hormone into the blood-stream and we go into the **rejuvenate, repair & replace mode** (the **collagen** being the **essential part of protein synthesis**).

Having both HGH and Collagen available, the body can synthesize all the protein it needs, not only to do the "essential to staying alive" repair & renewal work, but also less essential repair & renewal like **re-building the skin, strengthening ligaments, cartilage and bone, normalizing the immune system**.

In other words, the body begins to try and do all of the things that took place when we were a **young** and growing person.

Collagen is simply an amazing food supplement that helps the body's repair & renewal systems to work more effectively

Collagen to Fight Ageing

Collagen is a **powerful long-term anti-ageing protein**. It improves the skin's elasticity and suppleness, **reducing lines and wrinkles**. Taken in capsule form, collagen produces a firmer, more even toned skin and helps to achieve a **glowing radiant & more youthful complexion**. **Without enough collagen** only life maintaining repairs can take place. **Less essential repairs are not done**. As we become older even essential repairs have to be neglected. **This is the disease we call ageing**.

Your skin should feel smoother over the first few weeks, gradually becoming firmer. The lines & wrinkles in the eye area will begin to diminish and the lip border area start to fill out.



Without enough collagen your skin & body is old, whatever your age! No Anti-Ageing system can be effective without an adequate supply of body collagen.

Your body does not get collagen from food, it has to make it. By **ingesting** collagen (not digesting as food), your body lifts its own collagen production to that of a younger person.

Weight Loss & Reducing Body Fat

Collagen, taken orally, **can help the body metabolise fat**, it therefore has a roll to play in both weight management and the production of lean body mass in both sports and body-building.

Taking collagen powder causes the body to burn fat.

Collagen is used in protein synthesis with the body's energy source, fat, to produce the necessary proteins that the body needs to repair muscles, ligaments, tendons etc.

Taking collagen orally, you can stimulate your body's own collagen production.

Almost all the body's renewal and repair takes place during the first two hours of sleep when the body produces Human Growth Hormone.

The overall effect of the **increased fat metabolism** due to the increased renewal & repair activity is a **decrease in body fat**.



Anti-Inflammatory, Pain Relief, Joint Health

Collagen has been shown to **reduce damage to joints** and stimulate significant **reductions in joint pain**, tenderness and swelling.

A **Harvard Medical School** study on the effects of orally administered collagen for **reducing inflammation** and **relieving pain** (Dr C Searling, Fresco CA.) proved conclusively that almost **90%** of those taking part had remarkable results - resulting in a changed life-style for many.

Collagen can reduce oxidative damage to joints and stimulate reductions in joint-pain, tenderness and swelling.

Collagen naturally stabilizes the body's immune system and helps neutralize the production of abnormal molecular structures known to be a major cause of joint misery and stiffness, especially in rheumatoid arthritis.

Collagen naturally consists of 15% glucosamine and 15% chondroitin sulphate - two substances renowned for their beneficial anti-inflammatory properties.

It functions as a chondro-protective agent and **protects cartilage and synovial fluid** against deterioration.

Collagen can bring **real relief from pain** by directly combating ageing tissue and arthritis by aiding **normal repair of ligaments, tendons joints and bones** while improving the connective tissue of the skin.

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Collagen Recommended Usage

Collagen: When and How To Take It

To obtain the benefits of your collagen you must take it as outlined below. If you take your collagen such that it is digested, rather than ingested, then it will be as effective as a slice of toast !

When To Take Collagen

Collagen must be taken on an **empty stomach, with water, at least 2 hours after a meal (3 hours after a heavy meal)**. It should be taken as one of the last things you do before retiring for the night.

How To Take Collagen

Collagen **must NOT be digested**.

1 teaspoon taken with a glass of water. The collagen has to pass through the stomach and into the intestine without being "damaged" (broken down) by stomach acid. **This is why the stomach MUST be EMPTY.**

If it is broken down along with food, it is then no longer collagen and so becomes totally ineffective.



More Facts about Marine Collagen and Benefits to Skin

[Marine Collagen](#) Silanetriol/Polypeptides is designed to stimulate [Type III collagen](#) deep down within [the skin](#). The enhancement comes from a concentration of extrinsic native proteins from marine collagen which is known as the best source of collagen.

Collagen is a large molecule it can't penetrate into skin easily. Therefore there's a need of technology that would have to be more with actually getting the skin to open up to allow the collagen through because a whole collagen molecule cannot be compressed and if it is broken down to be delivered then it's not whole, obviously. Scientists found that Polypeptides technology can stimulate the synthesis of new collagen fibers in the skin.

In addition, the presentation of serum/gel that is aqueous, are the best presentation to deliver ingredients best.

Combination of marine collagen with the technology of polypeptides will help our skin by it :

- Stimulates [collagen production](#) and elastin collagen thickening
- Encourages skin renewal and minimize [muscle contractions](#)
- Reduces the appearance of [deep wrinkles](#) and fine lines
- Helps provide long-term improvements in deeper wrinkles.
- Helps prevent [collagen and elastin](#) breakdown to firm the skin

Our skin will be protected with its elasticity and improve skin plumpness.

What is Collagen?

Collagen means "glue producer". Kolla is Greek for glue.

The most important building block in the entire animal world, collagen is the tie that binds the animal kingdom together.

Life is a string of complex molecules: polymers.
Nature's most abundant protein polymer is collagen.
More than a third of the body's protein is collagen.
Collagen makes up 75% of our skin.

Collagen controls cell shape and differentiation, migration, and the synthesis of a number of proteins.

When the body needs to build any new cellular structure as in the healing process, collagen and/or collagen fragments will play a central role.

Skin Collagen

Collagen is very important for the skin. Indeed, it is the principal structural protein holding the skin together. The quantity and quality of our skin's collagen has a major role in our appearance. Therefore, it may be tempting to think that simply getting more collagen into the skin should lead to dramatic rejuvenating effects. While there is a grain of truth to that, things are more complicated than they look as far as collagen is concerned.

Collagen is not like most proteins, which are essentially compact molecular clumps -- it is basically a fiber or, when fully mature, a mesh of fibers. Collagen's composition is also unusual. It is particularly rich in four amino acids: lysine, proline, hydroxylysine and hydroxyproline. The most common patterns in the [amino acid sequence](#) of collagen are lysine-hydroxylysine-proline and lysine-hydroxylysine-hydroxyproline.

Types of Collagen

Collagen is found in the majority of organs, not just the skin. It occurs in different forms known as types. Hence, it is not enough to have the right amount of collagen in the right place - it has to be the collagen of the right type.

Type I Collagen - The most abundant collagen in the body. Found in tendons, bones, skin and other tissues. Particularly abundant in the scar tissue.

Types II, IX, X, XI - Cartilage

Type III Collagen - Common in fast growing tissue, particularly at the early stages (Phase 1) of wound repair. Much of it is replaced later by the type stronger and tougher type I collagen.

Type IV - Basal lamina (filtration membrane of capillaries)

Type V, VI - Generally found alongside type I

Type VII - Epithelia (lining of GI tract, urinary tract, etc.)

Type VIII - Lining of blood vessels

Type XII - Found alongside and interacts with types I and III

The most abundant types of collagen in the skin are I and III; their fibrils form the mesh largely responsible for the skin's mechanical properties. Other types of collagen in the skin are V, VI, and XII. They are found in much smaller amounts and appear to have a supportive role, whose details remain unclear.

Types of Collagen and the Aging Process

Overall, the amount of collagen in the skin tends to decline with age. However, different types of collagen behave differently. In particular, a child's skin has a lot of collagen III, the type is common in fast growing tissues. The abundance of the type III collagen is partly responsible for the softness of the young skin. As the body growth slows down, the skin content of type III collagen declines, while that of type I increases. In fact, [type I collagen](#) continues to build up until about the age of 35, when the skin reaches the peak of its mechanical strength. After that, type I begins to decline as well. The dynamic of age-related changes in other collagen types remains unclear. However, we do know that by the age of 60, all types of collagen are significantly below their youthful levels.

Understanding collagen types is important for a number of reasons. On the top of that different agents capable of stimulating collagen synthesis may affect different collagen types differently.

Collagen Degradation

Having a lot of collagen in our skin is not enough. Collagen degradation is an ongoing, natural process. Collagen is excessively damaged by a number of external factors like UV rays, smoking, impaired glucose metabolism, chlorinated water, free radicals, inflammation, irritation and others. Its structure becomes distorted, leading to poor skin texture, wrinkles and other imperfections.

Most components of the skin, including collagen, undergo continuous turnover. New collagen is continually produced and recycled throughout life. At a younger age the synthesis of collagen predominates, whereas after about age of 40, the degradation of collagen picks up speed. Therefore, to keep our skin's collagen in balance, after certain age you may benefit from steps to boost [collagen synthesis](#) and reduce its degradation.

Considering that collagen type I and III are predominate in the skin, the agents and treatments shown to stimulate the synthesis of these types are particularly promising. One good example of such an agent is topical stabilized L-ascorbic acid (Vitamin C) and Marine Collagen whose capacity to stimulate both type I and III collagen has been shown in a number of studies.

Pure Marine Collagen Selanitriol will help accelerate collagen synthesis and elastin collagen thickening, encourage skin renewal and reduce skin muscle contraction.

Because of pure concentration, many women could see the results of [skin elasticity](#) and plumpness just over a night of application

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