

How to Boost Collagen for Better Skin

Analysis by [Dr. Joseph Mercola](#)

January 12, 2024

STORY AT-A-GLANCE

- › Collagen is the most abundant of your body's proteins, found in your connective tissues, muscles, bones, tendons, blood vessels and digestive system, and it comprises 70% of your skin's protein
- › By your mid-20s, the collagen in your body starts to diminish, and by the time you reach your 80s, you have around four times less collagen, which explains sagging skin and wrinkles
- › Environmental factors like pollution and lifestyle factors such as poor nutrition can diminish collagen production, more quickly reducing your skin's elasticity and aging your bones and joints
- › Bone broth is considered a bona fide superfood, as collagen leaches out of the bones as it cooks down, bringing healing benefits, soothing achy bones and muscles, fighting infection and inflammation and improving your skin

Editor's Note: This article is a reprint. It was originally published May 8, 2017.

Whether or not they'll admit it, both men and women may catch a reflection of themselves and notice with dismay that their skin looks dull and tired, and see lines or sagging skin they weren't aware of before. They might purchase creams or lotions in an effort to minimize these and other telltale signs of too much sun, not enough sleep, inadequate nutrients and other factors.

One of the biggest contributors to these and other signs of aging is the loss of collagen, an important protein you need to keep your skin looking youthful and vibrant. As a compound of essential amino acids, there's only one way to get collagen; your body can't produce it, so you must attain it through your diet.

Further, collagen is the most common and abundant of your body's proteins, found only in human and animal tissue, specifically the connective tissues throughout your body, from your muscles, bones and tendons to your blood vessels and digestive system.

While most have heard of it in terms of skin elasticity, collagen benefits many areas of your body, including your hair and nails. One study shows that this protein comprises 30% of the total protein in your body, and a whopping 70% of the protein for your skin.

Cleveland Clinic¹ notes that your body contains 28 different types of collagen, but by your mid-20s, it begins to wane. By the time you reach your 80s, you have about four times less, which brings about the skin issues. But it's not a given. There are ways to slow the rate of diminishing collagen levels and even build them back up.

How Collagen – Or the Lack Thereof – Impacts Your Skin

Technically a polypeptide, collagen is also a long-chain amino acid composed of individual amino acids such as glycine, proline, hydroxyproline and arginine. Threonine is another essential amino acid for collagen production. According to Vital Proteins:

"The composition of collagen is considered unique given its high hydroxyproline content. If you lack the amino acids that combine to form collagen, your body's cells can't produce enough of it. Threonine is an essential amino acid for collagen production."²

Clear, firm, glowing skin begins inside your body, so it's true that you are what you eat. The first things to concentrate on are the areas of your body that are either enhanced or suffer in accordance to your diet. Toxins take a toll, but specific organs that affect collagen production include:

- Your small and large intestines, as they release nutrients to your body and help keep food moving onward and out. Getting rid of waste in a timely manner is crucial, when food hangs around for too long your complexion can become dull, oily and blemished.
- Well-functioning adrenals make essential hormones, including DHEA, estrogen, testosterone, progesterone and pregnenolone. Hormone imbalances can promote problem skin.
- Two organs that filter impurities from your body continually are your liver and kidneys. A diet that's lacking in the proper nutrients can tax these important organs and keep them from doing their job as they should. This in turn can result in skin that appears less than healthy.
- Thyroid problems can adversely affect your skin and lead to breakouts, but also cause dryness and itchy, dull, wrinkly skin. Because your thyroid works closely with your adrenals, it's like a double whammy when one or both fail to function properly.

Factors That Work Against the Development of Collagen

Certain environmental and lifestyle factors, unfortunately, can diminish collagen production, your skin tone and elasticity, making the production of young and healthy skin seem less and less unattainable as time goes on. Medical News Today explains:

*"When collagen levels are high, the skin is soft, smooth and firm. Collagen helps the skin cells renew and repair themselves. Collagen also helps keep the skin moist. This is why collagen has been seen as a very important ingredient for skin care over the years."*³

A few have already been mentioned, but there are several factors that can slow your body's ability to produce this essential protein:

Hormonal changes

Drugs

Overwork

Hydrogenated oils

Processed foods

Aging

Nutritional deficiencies	Fluoridated water	Radiation
Too much sun	Sugar	Stress
Dehydration	Alcohol	Trauma
Poor gut health		

It's important to get regular sun exposure on a large area of your bare skin to increase your levels of vitamin D. However, staying in the sun to the point of burning will take a toll. Your skin cells are continually being renewed, but also destroyed. The environment makes it worse: Pollution and even dust particles can contribute to the speed at which your skin ages.

People often use collagen-enhanced creams to help with repair, but Medical News Today⁴ contends that collagen molecules can't cross into deeper skin layers, so it's possible that these creams are a waste of money. However, there are better methods.

Bone Broth and Bovine Collagen for Improved Skin and Muscle Repair

If you're vegetarian, you'll likely have a more difficult time keeping up your collagen intake, because it's stored in animal bones, and it's one of the reasons why bone broth is now considered a superfood.

As it slowly cooks down, collagen leaches out of the bones bringing healing benefits when consumed: soothing achy bones and muscles, fighting infection and inflammation and naturally increasing your energy levels. When making your own bone broth, make sure to use organically-raised, pastured or grass fed animals.

Another way besides drinking bone broth to remediate low collagen and improve your skin and joint health is taking bovine collagen. One of the problems with getting enough

collagen through your diet is accessing the part of the bone where collagen is most available.

Bovine collagen is a naturally occurring protein found in the cartilage, bones and hides of cows, and is similar to what's in your own body. It also provides what is known as types I and III collagen, the key components in your skin, nails, hair, tendons, ligaments, muscles and bones, as well as your teeth, gums, eyes and blood vessels.

Bovine collagen provides glycine, an immunonutrient amino acid necessary for building DNA and RNA strands, and one of the three amino acids that form creatine, which promotes the growth of healthy muscles and helps produce energy during workouts, as well as proline, another amino acid crucial for your body's own collagen production. Four more health benefits provided by bovine collagen supplementation include:

- Deeper sleep and serotonin release due to its glycine content⁵
- Improved skin tone, texture and appearance, and possible diminished cellulite^{6,7}
- Builds muscle and repairs tissue for optimal workout recovery, supporting ligaments and tendons⁸
- Improves gut health and digestion due to the amino acid glycine, an essential digestive liquid produced in your stomach⁹

More Ways to Boost Your Collagen Levels

Besides bone broth and bovine collagen supplementation, there are a few more things you can do to bring more collagen into your life.

Studies say red light therapy, aka low-level laser light therapy, increases collagen growth to improve wrinkles and skin elasticity¹⁰

Retinol is an antioxidant used to increase the lifespan of collagen and block enzymes that destroy it

Ginseng, with antioxidant and anti-inflammatory properties, was found to increase collagen in the bloodstream and may have antiaging benefits¹¹

Aloe vera, taken orally, nearly doubled hyaluronic acid and collagen production in study participants¹²

Hyaluronic acid, an important compound for collagen in the skin, can be found in root vegetables, or taken as a supplement

Essential vitamin C was shown in one study to be skin protective and create more collagen in the body¹³

Antioxidants, which protect against damaging free radicals, enhance the effectiveness of existing collagen

Consuming vegetables rich in vitamin C, such as tomatoes, cucumbers, bell peppers and broccoli

Healthy Foods to Produce Healthy Skin

New Beauty¹⁴ lists several healthy foods you can eat to help give you the soft, supple, younger-looking skin you want. Not only do many of them boost collagen production, they also contain additional compounds to maintain the resiliency and volume of your epidermis.

- Because wild-caught Alaskan salmon is loaded with omega-3 fatty acids, it helps provide your body and your skin with additional support
- Berries, such as blueberries, blackberries and raspberries, help protect your skin from damage from free radicals and also increase collagen
- Oranges, grapefruit, lemons and limes, with high amounts of vitamin C, help the amino acids lysine and proline convert to collagen

- Garlic contains sulfur, a necessary component for collagen production, but it also contains lipoic acid and taurine to help rebuild damaged collagen fibers

Sources and References

- ^{1, 8} Cleveland Clinic. Collagen
- ² Vital Proteins 2016
- ^{3, 4} Medical News Today April 26, 2017
- ⁵ J Pharmacol Sci 118, 145 – 148 (2012)
- ⁶ J Med Food. 2015 December 1;18(12):1340-1348
- ⁷ Skin Pharmacol Physiol. 2014;27(1):47-55
- ⁹ Am J Physiol 1982 February;242(2):G85-8
- ¹⁰ Semin Cutan Med Surg. 2013 March;32(1):41-52
- ¹¹ J Ginseng Res. 2012 January;36(1):61-67
- ¹² Clin Cosmet Investig Dermatol. 2015;8:95-104
- ¹³ Indian Dermatol Online J. 2013 April-June;4(2):143-146
- ¹⁴ New Beauty October 9, 2013