

Collagen: The Cure For Aging?

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Apr 1, 2012

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What do wrinkles, sags, and stiff, achy joints have in common? They're all manifestations of a loss of collagen.

From the Greek word, *kólla*, meaning glue, collagen is the most abundant type of protein found in the human body. It makes up our connective tissue, providing the structure for skin, tendons, joint cartilage, organs, bones, and other parts. Our bodies actually contain more than 20 different types of collagen, but three of these—types I, II, and III—make up 80-90 percent. Types I and III are found mainly in the skin, tendons, ligaments, and bones, while type II is a major component of joint cartilage.

Once we hit our mid-20s, our collagen levels begin to decline. As compared to those in their 20s, people in their 80s have about four times the collagen breakdown. That's why age brings wrinkles, creases, and saggy areas around the mouth and neck.

Our bodies produce collagen in the underlying layer of the skin, the dermis. Think of it as a mattress and our outer skin, the epidermis, as bed sheets. When collagen starts to break down, we end up with an old, saggy "mattress" that wrinkles the sheets.

Natural Restoration

Collagen supplements are made from the connective tissue of animals, which is tough to break down. Think of the connective tissue in a piece of meat, such as ribs. It's tough, but when cooked enough, it turns into a soft gelatin.

In its natural state, collagen is composed of large molecules. In some supplements, the collagen is "hydrolyzed"—broken down into smaller molecules, called peptides, for better absorption. Studies have shown that collagen peptides are well absorbed in the digestive system and make their way to targeted tissues, where they act as building blocks and trigger our own internal collagen production.

Research shows that supplements of hydrolyzed types I and III collagen increase collagen levels in the skin. Types I and III collagen also support tendons and ligaments, and help with exercise recovery.

BioCell II-a patented version of hydrolyzed type II collagen-has also shown significant skin benefits. In addition to replenishing skin structure, the supplement prevents the breakdown of hyaluronic acid, a substance naturally present in our skin that holds in moisture.

Youth Movement

Type II collagen makes up a major portion of the cartilage that cushions joints. In osteoarthritis, injury or wear and tear break down cartilage, eventually causing bones to rub together. Inflammation intensifies the symptoms but doesn't trigger the disease.

In contrast, rheumatoid arthritis is an autoimmune disease, where inflammation causes pain, stiffness, and swelling. It stems from an immune-system malfunction rather than ordinary wear and tear. Collagen can actually help with both types of arthritis.

Type II collagen naturally contains chondroitin and hyaluronic acid-substances known to support joint health. This is how they work together: Type II collagen and chondroitin renew cartilage by providing building blocks and stimulating the body's production of collagen. Chondroitin may also help fight inflammation and block an enzyme that breaks down cartilage. Hyaluronic acid, naturally found in synovial fluid, lubricates joints.

For osteoarthritis, studies have found that BioCell II improves joint comfort and mobility. In addition, studies show that an undenatured type II collagen-known as UC-II-can reduce inflammation in both osteoarthritis and rheumatoid arthritis.

Shopping for Collagen Supplements

For Healthy Skin: Choose a supplement with hydrolyzed types I and III collagen. For best absorption, take it at least 30 minutes before eating other protein. Or, choose BioCell II. Both types can be taken together as they contain different, complementary components.

For Healthy Joints: Choose type II collagen to support cartilage and joint lubrication. For inflammation, look for undenatured collagen, known as UC-II.

For Exercise Recovery: Collagen types I and III support tendons and ligaments while type II supports joints.

For Pets: BioCell II and other type II collagens are available in pet supplements for joint health.



NeoCell

Super Collagen+C

These tablets feature a blend of type I & III collagen with vitamin C for hair, skin, nail, joint, muscle, and bone health. Take on an empty stomach for best results.



Reserveage

Organics Collagen Booster

Hyaluronic acid, BioCell II, and resveratrol are combined in this award-winning formula designed to support radiant, healthy skin.



Doctor's Best

Best Collagen Types 1 & 3 (powder)

Mix this fast-dissolving powder with water or juice for beauty, joint, and bone benefits. Avoid combining with protein powder supplements.