

# collagen fast facts

## Collagen Facts

- Collagen is the most abundant protein in the body making up structural proteins such as skin, hair, ligaments and tendons.
- There are approximately 16 different 'types' of collagen with slightly different components, but they all make up a triple helix shape- like three pieces of string twisted together. Type I, II and III collagen make up the majority of connective tissues in the body.
- As we age, collagen content of our skin and joints declines, so supplementing with collagen can help slow this process and help repair damaged tissue.



## How does collagen differ from other protein supplements like whey?

Different tissues in the body have different amino acids that make them. Collagen is made up mostly of three amino acids glycine, hydroxy proline and proline, where as muscle is made up from different amino acids including the branched chain amino acids leucine, isoleucine and valine.

When supplementing for the purpose of improved connective tissue or improved muscle mass, you need to supplement with the amino acids that make up that tissue!

So if you want to improve joint health or skin integrity, you would want to make sure your protein source was rich in glycine, hydroxyproline and proline and if supplementing to build muscle, you would want to supplement with sources that are rich in branched chain amino acids, such as whey.

**Put simply, it's not a matter of which to have, supplementing with both has benefits, but for different tissues in the body.**

### Collagen for Joints



Collagen is a major component of our joints and ligaments- the connective tissues that translate contractions from muscles into movement of our skeleton! Age we age, and with injury, tendons and ligaments can have reduce collagen, which makes them weak. To add insult to injury (literally) tendons and ligaments have very limited blood supply, which limits the amount of additional nutrients that can be delivered to the site of injury for repair. Because tendons and ligaments have a dense sponge-like structure, supplementing with collagen around exercise 'bathes' the tendon/ligament in the collagen, allowing it to be drawn into the required tissue and used to accelerate the generation of new tissue.

### Why is vitamin C important?



Vitamin C (ascorbic acid) is a co-factor in the production of collagen. A co-factor is an important substance which is essential of a reaction to occur. Without adequate vitamin C, collagen production can be impaired.

### Collagen for skin



Collagen makes up about 75% of your skins weight. As we age, the level of collagen in your skin declines leading to the signs of aging such as wrinkles. Supplementation can help improve skin elasticity, hydration and wrinkling.