

Collagen Comparisons

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Since more and more positive research is surfacing on the value of collagen supplementation, I thought it would be helpful to do a comparison between Hydrolyzed Collagen Protein and collagen peptides, called Optimal Collagen, both from Biotics Research.

Let's start with Hydrolyzed Collagen Protein. Hydrolyzed Collagen Protein, as its name suggests, contains predigested collagen and is a source of bovine protein. Many of us are looking for a good source of protein that is easy to use, tastes good, and can be used in smoothies, coffee, and one of my favorites, steel cut oats. Hydrolyzed Collagen Protein is a complete protein with the full range of all essential amino acids. Because it is from bovine exclusively it contains type 1 and 3 collagen. It is 21 grams of a complete protein and 17 grams of collagen per serving. This combination makes it a little sticky, and it takes a few seconds to stir into solution, but mixes better with hot cereals or beverages or when you use a blender. Remember, it's the sticky collagen that holds tissue together. Hydrolyzed Collagen



Protein is available in both chocolate and vanilla flavors.

As a reminder, adults generally need about 0.36 grams of protein per pound of their ideal body weight daily to support optimal muscle protein. Collagen makes up about 30% of your body's protein. You can see a link to the right for a deeper discussion on individual protein needs. Surprisingly, the number one anti-aging factor is an increased percentage of lean muscle mass. So, the benefit of using a predigested protein that also contains a sizable amount of collagen is very appealing. Hydrolyzed Collagen Protein supports healthy aging, stren-

uous physical activity and contains type 1 and 3 collagen which supports hair, skin, and nails. It's a combination product. The focus on Hydrolyzed Collagen Protein is toward general wellness.

Optimal Collagen from Biotics Research contains a significantly higher percentage of collagen peptides, and is therefore, more condition specific. Optimal Collagen also contains collagen types 1 and 3, so we expect to see results with hair, skin and nails. But unlike most other collagen products on the market, Optimal Collagen contains type 2 as well as small amounts of type 5 and 10.

Type 2 collagen is very difficult to obtain from our diet. The sources are bovine bone, cartilage, and tendons, poultry, and eggshell membranes. Type 2 collagen has been associated with increased mobility and healthy joint function. Studies with type 2 collagen show reductions in pain, osteoarthritis, and some studies have shown benefits for osteoporosis. I was surprised to see a study highlighting the benefits of collagen peptide and support for the cardiovascular system.

You can look to the right for a link on: *Effects of collagen peptide supplementation on cardiovascular markers: a systematic review and meta-analysis of randomized, placebo-controlled trials*. "Our analysis also indicated that collagen peptide support did not affect glycemic markers. Our outcomes indicate that Collagen Peptide Supplementation reduces fat mass, LDL cholesterol, and systolic blood pressure while increasing fat-free mass."

The other profound difference in Optimal Collagen is the addition of "collagen glue." I am talking about silicon. Silicon bonds with other collagen strands, elastin, keratin, and proteoglycans. Silicon is essential to collagen architecture. It's what gives collagen its strength, durability, and overall elasticity. Even though silicon is the 2nd most abundant mineral on earth, the third most in our body, studies show both collagen and silicon are drastically reduced in the aging process. Could it be that because silicon, the collagen glue, becomes depleted,

our cellular matrix becomes compromised? Even though silicon is abundant, it's difficult to absorb. The range of silicon bioavailability ranges from less than 1% up to values close to 50% depending upon the form used. To date, the form of silicon that is most bioavailable is stabilized orthosilicic acid, OSA. Biotics Optimal Collagen contains 20 grams of collagen complex, 18 grams of protein peptides, and 10 mg of bioactive silicon from orthosilicic acid. Here's what may be the best part – it's tasteless and mixes easily in water, coffee, juice, or iced tea.

I think you can see that Optimal Collagen is more condition specific, almost a designer product that some skin doctors describe as "Botox in a bottle." It's not the complete protein that hydrolyzed collagen protein is, and therefore, has a lower nitrogen score. Research has shown that skin changes can be seen in 60-90 days. However, musculoskeletal benefit requires 6 months. Regardless of the product you choose for your patient, make sure they understand that there is a constant degradation process happening as we age. However, regeneration or rebuilding is also taking place, literally at the same time. The goal is to keep the rebuilding phase ahead of the degradation phase. And we do that by feeding the cells that make collagen and providing the raw materials needed for tissue and cellular repair.

Thanks for watching. I look forward to being with you again next Tuesday.