Q – What is the difference between the collagen products

Gelatin comes in two forms (1) Gelling and (2) non-gelling.

Also, known as food grade Gelatin (gelling) and hydrolysed Gelatin (non-gelling). The difference between the two products is simple. They are processed differently to produce powders with varying sizes of molecules and structures so different areas of the body can be targeted.

(1) Gelling Gelatin – Food grade Gelatin aids digestion by soothing the gastrointestinal tract and it naturally binds to water, helping food move through the digestive tract more easily. Taking food grade Gelatin can assist in reducing food sensitivities by reducing inflammation in the gastrointestinal system. The amino acid keratin in Gelatin assists the structural integrity of the gastrointestinal lining. Ideal for those suffering from multiple food allergies known as leaky gut.

(2) Non-gelling Gelatin – Hydrolysed collagen has been broken down to a very fine particle making it readily available to the body. It doesn’t need to be digested, it gets absorbed straight through the small intestine and into the blood stream. This assists in reducing inflammation, and allowing more mobility of joints, increasing muscle mass, strengthening cartilage, promoting the growth of connective tissue.

While the ingredients remain the same for all products – Beef (Bovine) the difference is in the processing. Different enzymes are used in processing which utilize different aspects of the collagen, therefore giving us different products.

The amino acid profile will be the same as it is the same base product. (This is something you want). The DIFFERENCE is where the amino acid chain is split, not the amount of amino acids in the product. This then allows each product to perform specific tasks and do different jobs in the body. It won’t change amino acid profile, only the way it acts within the body.

The products are different is molecular weight size and structure, and designed to do specific jobs in the body.

Here is another way to explain the difference.

"Gelatin and collagen hydrolysates are made from Type I and Type III collagen which is found in the skin, tendons, bones, organs, vascular ligature and reticular fibres. Type II collagen is found exclusively in the cartilage. The Gelatin and collagen hydrolysates are derivatives of collagen, basically the collagen molecular structure is broken down into a single chain rather than its original triple helical structure.

The difference between Gelatin and collagen peptides is the molecular size, Gelatin is approximately 180K Daltons in size whereas collagen hydrolysates range from 2-10K Daltons. The smaller molecular structure makes it much more readily absorbed by the body. Being smaller it does not need to be digested but goes in to the lower intestine to be readily absorbed by the body and taken up into the blood stream.
Now the type of collagen extracted does not necessarily stimulate the particular body parts where it has come from. It is a much more complex system than Type I stimulate Type I. Type I and Type III collagen actually have a stimulatory effect on the cartilage collagen which is Type II, as well as stimulating all other areas of the body that contain collagen. It is not where it has come from in the body, It is the particular amino acid sequences and structure of the protein that stimulate the collagen production.

The difference between the collagens was not the source but a combination of final average molecular weight and the particular type of enzyme used during the processing to split the amino acid chains, and where the amino acid chains are split. The difference in the enzymes was where the collagen molecule was cleaved, for example within a particular amino acid sequence it would cleave between two particular amino acids leaving a specific length of collagen as well as two specific amino acids at the ends of the molecule. The important thing found too was the mode of action, it is not the collagen being ingested that goes into the joints, it is the collagen ingested being utilised in the body to send signals to the cartilage cells to stimulate the production of more collagen (Type II) within the body to then create cell / cartilage growth.

Technical differences explained – differently – no science

During the processing and manufacturing of our collagen products, different enzymes are utilised during the manufacturing process and this allows the amino acid chain to be split in different places. By splitting the amino acid chain in varied places this enables the product to be produced with different molecular weight, size and structure – therefore providing a different product to perform differently in the body.

So, for example, Collagen A may be split between amino acid points 3 & 4 in the chain while collagen B may be split between points 5 & 6. Muscle Repair collagen may be split between points 5 & 6. Our other collagen products will be split at other points such as 4 & 5, 7 & 8 and so on. This results in different structures and abilities to work in the body.

Here are some other examples / analogies’. When purchasing beef, you could choose to purchase steak or mince. Essentially, they are the same product but are processed differently allowing people to cook in different ways and make different meals. The same properties remain in the beef. Its simply the processing that make it different. OR -

It could be like mixing different colours. Red is still red but when you add yellow with it the colour changes to become orange. Try mixing blue with it then you have purple. BUT the red properties remain.

Simply - Collagen is hydrolysed or broken down Gelatin and when you mix it with certain enzymes it creates a different product by splitting the amino acid chain at different points. We hope this will help with the understanding of the differences and will allow an explanation to others who will enquire. Of course, if you still have questions then please email us and we will do our best to assist.