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Partially Hydrolyzed Eggshell Membrane

Serve your customers a dual action joint support ingredient.

Learn why partially hydrolyzed eggshell membrane is the only way to receive dual action joint support.

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stratum NUTRITION®

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Contents

S1 Partial hydrolyzation, like the perfect stir-fry.

Ah, summertime! Outdoor activities, vacation time, and the availability of a plethora of fresh vegetables from our own gardens or someone else's. (How many recipes are there for zucchini?). One of the best ways to enjoy the abundance of a garden is by making a tasty stir-fry - a combination of colors, flavors and of course, the nutrients bursting from vegetables that are freshly picked.

However, the perfect stir-fry is somewhat of an artform. The vegetables need to be cooked long enough to soften just a bit, otherwise we would be making a salad. But they still should retain their color, texture, flavor and most importantly, their nutrients.

If we cook the mixture too long, we are left with a limp, colorless mass, devoid of most of the nutrients we hoped to ingest.

NEM® is a natural joint health ingredient derived from the bilayer membrane that forms the inner lining of chicken eggshells. This membrane is composed primarily of fibrous proteins like collagen, along with other bioactive components, namely glycosaminoglycans like dermatan sulfate, chondroitin sulfate and hyaluronic acid, among others. In a way, it is like a basket brimming with vegetables from the garden and bursting with nutrients that can benefit joint cartilage, ligaments and tendons.

In order to free these nutrients from the digestion-resistant matrix of the membrane, NEM® undergoes a partial enzymatic digestion (hydrolyzation) as part of the manufacturing process.

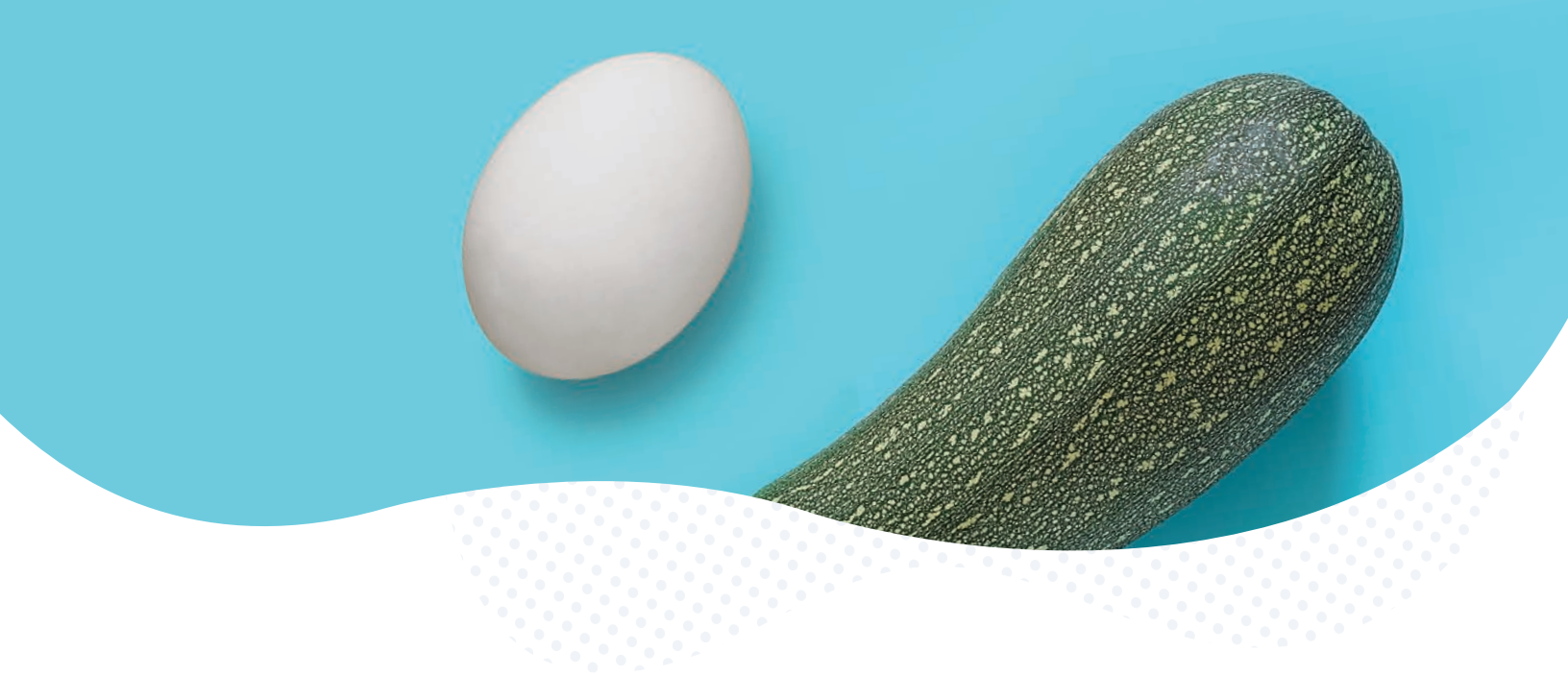
S2 Get crackin' with partially hydrolyzed eggshell membrane.

Like cooking the perfect stir-fry, this gentle pre-digestion provides just the right boost to the body's further digestion and ultimately, the optimal absorption of the important bioactive components of NEM®.

Pre-digestion is particularly helpful for individuals whose digestion has been compromised by age, medication or certain disease conditions. It is possible to completely hydrolyze the fibrous eggshell membrane but doing so breaks down most of the important membrane proteins, including collagen, all the way to their simplest form as amino acids. This process requires harsh chemicals, which is hardly a natural process; and the resulting material is somewhat like the overcooked stir-fry, not very satisfying. Yes, your body can benefit from the calories, but it isn't very good to eat, most of the nutrients are not in the form best used by your body and some nutrients might be missing altogether.

The partial digestion unique to NEM® breaks down these important proteins, including collagen, into smaller peptides. Not only is this better for absorption and utilization by the body in reassembling into the types of collagen that make up joint tissues, these peptides also interact with the gut-mediated immune system.

A critical role of the immune system that functions in the gut is to interact with food and other ingested substances and identify which substances are safe and which are harmful.



S3 Zucchini! A healthy oral tolerance helps ensure an appropriate immune response.

Small pieces of proteins that interact with the immune system called immunogenic peptides, which are consumed on a regular basis, are believed to play a major role in oral tolerance. Oral tolerance is the process through which the body recognizes repeatedly ingested peptides and then alerts the rest of the immune system that those peptides are "safe."

It is believed that the peptides in NEM® are recognized by this part of the immune system. It is known that part of the cause of joint cartilage breakdown is the immune system's inflammatory response to Type II collagen fragments that break off from cartilage tissue as a result of injury or wear and tear.

The collagen peptides in NEM® are very similar to those collagen peptides and if the gut immune system identifies them as safe, then this decreases the inflammatory response to the collagen fragments resulting from cartilage breakdown.

Oral tolerance is the process through which the body recognizes repeatedly ingested peptides and then alerts the rest of the immune system that those peptides are "safe."

S4 Lettuce see what's up with unhydrolyzed eggshell membrane.

But, aren't salads healthy too? In other words, what about eggshell membrane that hasn't undergone any hydrolysis, allowing the body to do all the work of digestion and absorption. And the simple answer is, "Yes, but." Unhydrolyzed eggshell membrane does contain all the nutrients in NEM®, but the tough fibrous sheet-like structure within which the nutrients in eggshell membrane are enmeshed is difficult to break down in the digestive tract. This would especially be true for those with compromised digestive systems.

But this isn't all bad. It is now known that unhydrolyzed eggshell membrane, such as Stratum's eggshell membrane collagen, can provide several benefits resulting from its resistance to digestion and functioning in the gut. It is not the same ingredient and doesn't have the same benefits for joint tissue backed by over 15 clinical, veterinary and MOA studies, but it is beginning to show great promise as a beneficial ingredient. Salads are great, when you want or need a salad.

There is no other eggshell membrane ingredient that is fully backed with extensive science like that of NEM®.

The partial hydrolysis of NEM® therefore enables it to benefit joints directly through enhanced absorption of its important components, and indirectly through modulation of the immune response to joint inflammation via oral tolerance. No other ingredient can provide this type of dual-action joint support.