

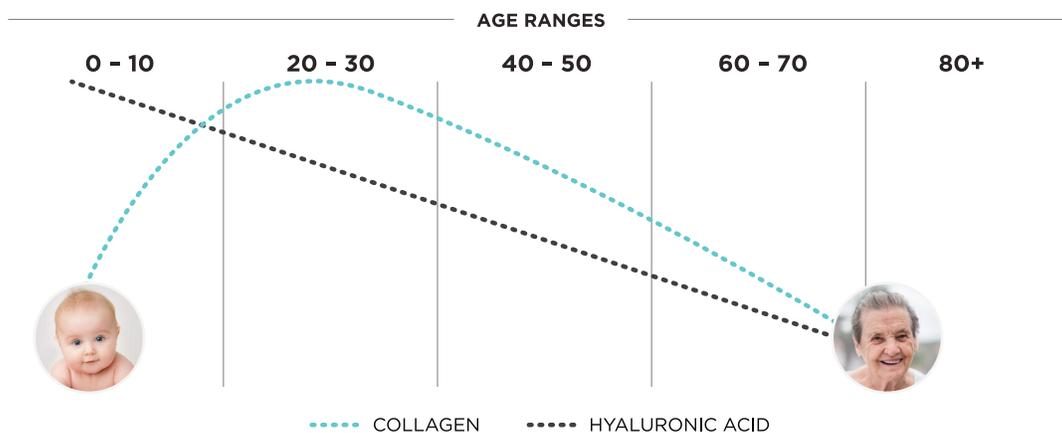
# A CLOSER LOOK AT COLLAGEN

The truth behind the anti-aging supplement everyone is talking about

Is there really any difference between the countless collagen products on the market? That depends on who you ask. With so much conflicting information from supplement companies, social media and high profile personalities, it's getting harder and harder to know what to believe. Read on to learn the surprising, science-backed truth that even most industry experts don't know.

## COLLAGEN: THE BASICS

Collagen is a protein that provides structure to cells and can be found in nearly every part of the human body, especially in healthy skin, joints and connective tissue. Your body starts to decrease collagen production in your 20s. In fact, you lose about 1% of your collagen every year, so by age 50 you have nearly 30% less collagen than you did at age 20, and almost 50% less collagen by the time you're 70.



Collagen loss is the number one internal factor that contributes to noticeable signs of aging. Once it begins to break down, the intracellular matrix loses its rigidity and structural support, leading to the appearance of sagging skin and wrinkles, joint discomfort, tendon and ligament stress, and affects eyes, nails, hair, gums, and even digestive health.

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## COLLAGEN INGREDIENTS ARE NOT CREATED EQUAL

Collagen as a nutritional ingredient can be classified into one of several groups depending on its type, source and manufacturing processes. The most popular varieties of collagen include:

**TYPE I:** Hydrolyzed — Derived from porcine skin, bovine hide, eggshell membrane or fish, this collagen type is commonly sold as bone broth or collagen powder.

**TYPE II:** Undenatured, unhydrolyzed collagen — Mostly derived from chickens.

**TYPE III:** Hydrolyzed — Often derived from bovine sources.

**Vegan collagen:** A pending scientific development in attempts to meet consumer demand, using genetically modified yeast and bacteria.

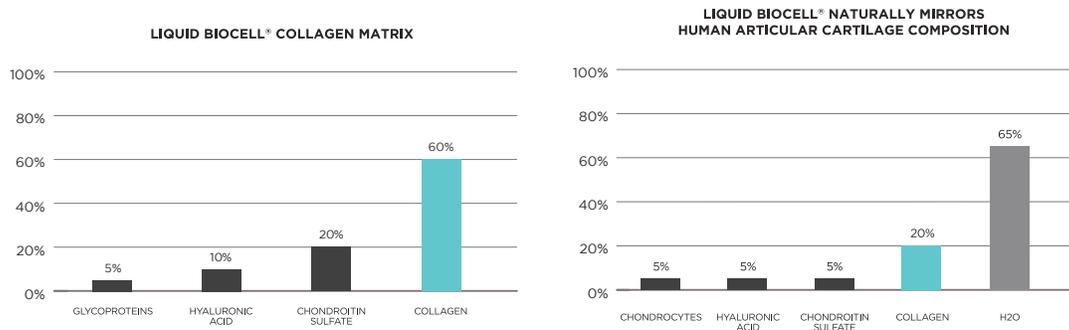
**NOTE:** Vegan collagen is not yet commercially available at the time of this publication. Products that are misleadingly labeled as vegan collagen typically contain no collagen at all, but instead are formulated with common collagen-boosting ingredients such as vitamin C to capitalize on consumer demand.

If you’ve ever heard that ingestible collagen doesn’t provide any benefits, that’s partly true. **In their natural state, collagen molecules are too large to be effectively absorbed by the body and are simply digested as proteins in the digestive system.**

Hydrolysis is a process that breaks down these large collagen molecules for improved efficacy, so most supplements use hydrolyzed collagen. However, the method of hydrolyzation and the type and source of collagen used can yield widely varying results in the quality and effectiveness of the end product. What’s more, there’s also a very different kind of collagen that goes beyond the usual categories named above.

## LIQUID BIOCELL® IS A NEW GENERATION OF COLLAGEN

Liquid BioCell® is a unique type II collagen that goes beyond the typical hydrolyzed bovine or marine collagen found in most formulas. This award-winning, single-source matrix is a naturally occurring combination of highly absorbable collagen with hyaluronic acid and chondroitin sulfate, in concentrations that mirror human articular cartilage composition. It’s clinically shown to deliver remarkable joint benefits — and dramatic skin benefits too.\*



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Backed by multi-patented Collagen/HA Matrix® Technology, this proprietary ingredient is naturally derived from chicken sternal cartilage and hydrolyzed using a patented Bio-Optimized™ manufacturing process to achieve an ideal micromolecule. The result is naturally enhanced bioavailability. Bioavailability has a direct bearing on how beneficial a supplement is, because it measures how efficiently a substance enters a body's circulatory system. Ingesting a nutrient is not enough; it must be absorbed in order to derive any benefit, so the bioavailability of a supplement can be just as important as, if not more so than, what its nutrition label may claim.\*

### **Q. How is the chicken sternal cartilage sourced?**

Liquid BioCell uses a highly bioavailable liquid form of a patented sternal cartilage that is a matrix of collagen, hyaluronic acid and chondroitin. It is derived from a byproduct of humanely treated chickens raised free of GMOs, antibiotics and hormones on the world's most reputable and regulated farms located in the US and Europe. As part of our commitment to sustainability, we use chicken byproduct from parts that the farms would otherwise discard after processing the chickens for their meat.

### **Q. Why are the HA and chondroitin sulfate in Liquid BioCell® important?**

Hyaluronic acid is a natural compound that exists throughout the body and is most commonly found in the eyes, joints and skin. Its molecular structure gives it a unique ability to retain large amounts of water, which affects the body's moisture content and directly impacts the appearance of wrinkles, fine lines, dry skin and skin's firmness. It is also a crucial component of synovial fluid for sufficient joint lubrication.\*

Naturally found in connective tissue, chondroitin sulfate is one of the building blocks of cartilage. Its job is to help cushion joints and provide elasticity and resistance. Chondroitin sulfate supports joint, bone, ligament and tendon health for optimal mobility and can play a key role in living a more active lifestyle as you age.\*

In the simplest terms, Liquid BioCell® consists of type II hydrolyzed collagen, a major component of healthy joints, youthful skin and connective tissue; hyaluronic acid (HA), essential to skin hydration, tissue maintenance and a youthful appearance; and chondroitin sulfate to support joint flexibility and lubrication.\*

### **Q. How was Liquid BioCell® discovered?**

Liquid BioCell® products were developed by collagen expert Asma Ishaq. Asma has pioneered the collagen industry and continues to lead as Chair of the Board of Directors for the Collagen Stewardship Alliance, dedicated to ingredient transparency, globally sustainable collagen sourcing, ingredient quality and integrity. As Modere CEO, Asma was recognized in 2021 by Forbes as a top CEO in the health and beauty ecommerce space.

Liquid BioCell® is a result of research that was being done on an ingredient called hyaluronic acid or HA, which was thought to be associated with longer life spans. The medical community and researchers were very interested in the science, however found that the natural state of HA was too large for the body to absorb. Asma and her team's interest in this science led to the discovery of a unique natural source of HA, which also coexisted with

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collagen and chondroitin sulfate as it does in the human body. The raw material was tested and developed into micromolecules that could actually be absorbed by the body. This nutraceutical ingredient was awarded 7 US and international patents and is called BioCell Collagen.\*

### Q. How do I know Liquid BioCell® is working?

Results prove that the body readily recognizes and accepts Liquid BioCell® in controlled clinical environments where researchers can compare collagen and hyaluronic acid levels in the skin and in the blood of participants at weekly intervals.

The data shows measured increases in collagen and hyaluronic acid among study participants, indicating Liquid BioCell® is formulated at a molecular weight that is effectively absorbed into the bloodstream and isn't broken down in the digestive system is the same way as typical collagen proteins.

### Q. What is the advantage of its liquid formula?

Liquid BioCell® features an advanced liquid delivery system that is designed not only to be easy to use, but also tastes good. And people are more likely to take a supplement consistently if it is easy to use, which in turn improves efficacy and results.

## PROVEN CLINICALS PROVIDE RESULTS YOU CAN TRUST

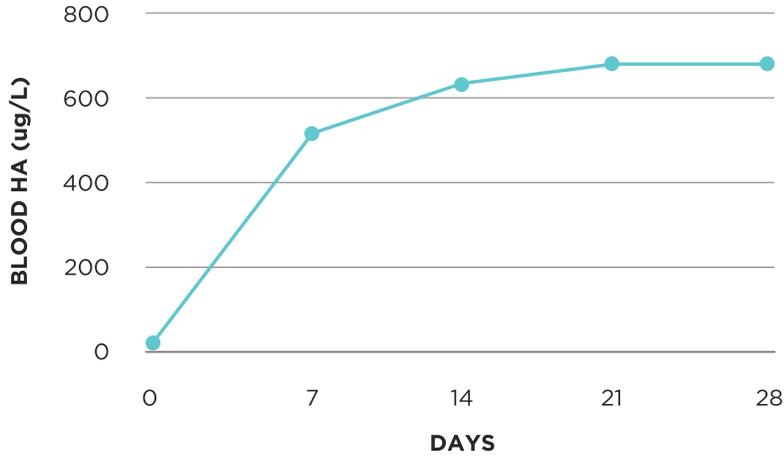
As the gold standard for supplemental collagen since its launch, Liquid BioCell® has inspired groundbreaking trends that have since been attempted by other brands, like a collagen matrix ingredient. Even so, Liquid BioCell® still stands alone in delivering all of these clinically demonstrated benefits, backed by multiple double-blind, randomized, placebo-controlled human clinical trials for results you can see and feel:

### LIQUID BIOCELL® RESTORES YOUTHFUL SKIN, INCREASING COLLAGEN AND HA\*

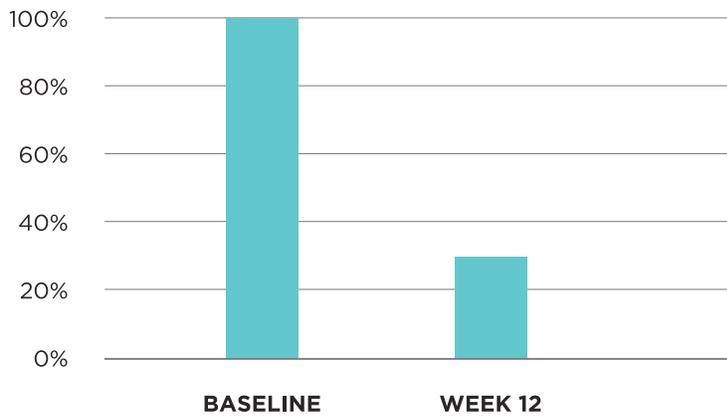
- Counteracts skin's natural aging and photoaging from the inside out\*
- Improves skin's hydration, firmness and elasticity\*
- Increases skin's collagen content\*
- Reduces the appearance of deep wrinkles and lines\*
- Helps improve skin's microcirculation and skin tone\*
- Reduces hyaluronidase, the enzyme that causes skin aging\*
- Promotes healthy hair, nails, gums and eyes\*

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In human clinical trials, hyaluronic acid levels increased by 6000% over 28 days reducing wrinkles from the inside out.\*

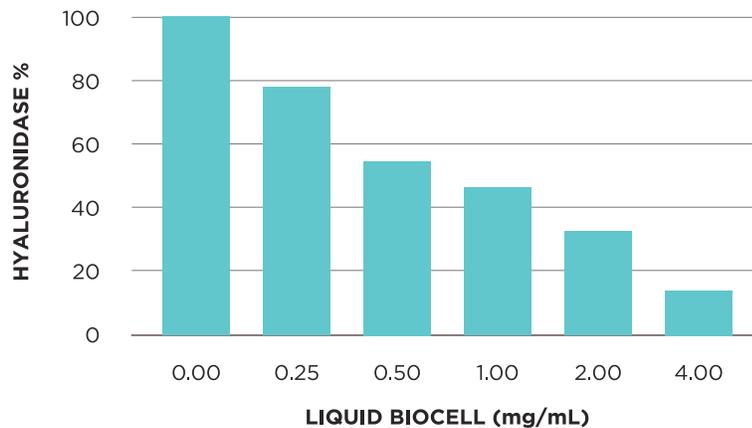


In a human clinical trial, dryness and scaling skin were reduced by 76% without the use of topical moisturizer at 12 weeks.\*



What's more, Liquid BioCell® is scientifically proven to reduce hyaluronidase, an enzyme that significantly contributes to skin aging.\*

### INHIBITION OF HYALURONIDASE BY LIQUID BIOCELL®

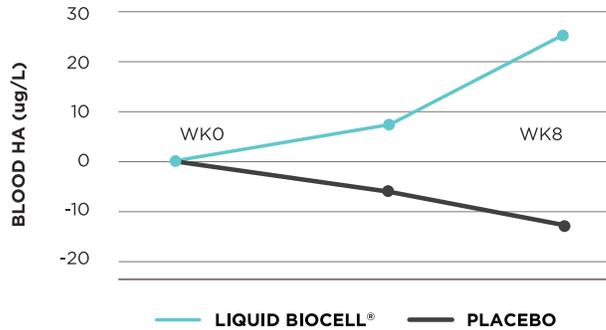


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## LIQUID BIOCELL® SUPPORTS JOINTS FOR A MORE ACTIVE LIFESTYLE\*

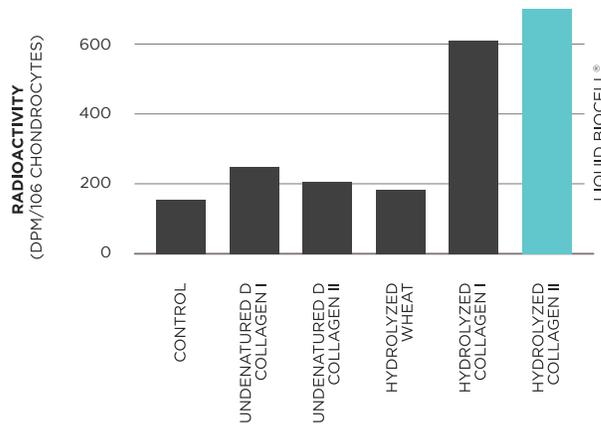
- Improves joint mobility and lubrication\*
- Reduces joint discomfort\*
- Promotes healthy cartilage and connective tissue\*

Liquid BioCell revealed measurable improvement in joint discomfort and physical activity after 8 weeks\*.



In fact, the Bio-Optimized™ collagen in Liquid BioCell® may even directly activate chondrocytes (cartilage cells) to stimulate the body to produce its own new collagen.\*

### NATURAL PRODUCTION OF NEW TYPE II COLLAGEN AFTER TAKING COLLAGEN SUPPLEMENTS



### Q. How many grams of collagen do I need daily to see results shown in these studies?

Thanks to its Bio-Optimized™ micromolecules, our unique matrix of collagen, HA and chondroitin sulfate has been proven effective at just 1-2 grams per serving in multiple human clinical studies. This studied dosage is delivered via the recommended serving size of just two tablespoons (30mL) of Liquid BioCell per day.

For comparison, the majority of hydrolyzed collagen supplements made from bovine, marine or pig sources typically require a large daily serving of 10-20 grams—often delivered in a hefty scoop of powder—yet are not backed by the same proven studies.

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### LIQUID BIOCELL® IS BACKED BY MULTIPLE PATENTS & AWARDS

Modere delivers premium collagen you can depend on for effective, clinically proven results backed by a commitment to clean label ingredients and packaging. The Liquid BioCell® line currently includes 4 non-GMO, gluten-free and dairy-free formulas to deliver targeted benefits for a wide range of ages and lifestyles, as well as two formulas specifically designed for pets.

Nearly two decades in the making, Liquid BioCell® bridges the gap between nutrition, beauty and anti-aging. A pioneer in the industry, it's one of the most widely recognized collagen brands in the United States and has earned global recognition and multiple awards.

- **2020 NUTRACHAMPION** (awarded to Modere CEO Asma Ishaq for innovation in collagen)
- **FINALIST, PRODUCT SPECIAL INNOVATION** Pure Beauty Magazine, 2020
- **BEST HEALTH DRINK** (awarded for Modere Logiq™) Beauty Shortlist Mama & Baby Awards, 2019
- **FINALIST, BEST NEW BODY CARE** (awarded for Trim) Pure Beauty Magazine, 2019
- **BEST WEIGHT MANAGEMENT SUPPLEMENT** (awarded for Trim) SupplySide West Editor's Choice, 2018
- **FINALIST, PRODUCT INNOVATION AWARD** (awarded for Trim) DSA Awards, 2018
- **#1 ANTI-AGING ESSENTIAL** TasteForLife Supplement Essentials, 2015
- **BEST JOINT HEALTH SUPPLEMENT** SupplySide West CPG Editor's Choice, 2015
- **READER'S INGREDIENT OF THE YEAR** Nutraingredients Awards Winner, 2015
- **EDITOR'S PICK** Remedies Magazine, 2015
- **FINALIST, MOST INNOVATIVE DIETARY INGREDIENT** Nutraceutical Business & Technology Award, 2012
- **BEST BONE & JOINT HEALTH INGREDIENT** Frost & Sullivan Award Winner, 2011
- **EXEMPLARY US BRAND RECOGNITION** Beauty From Within Conference, 2011
- **ANTI-AGING FEATURE PRODUCT** - CBS, 2011
- **ANTI-AGING FEATURE PRODUCT** - Good Morning America, 2010
- **ANTI-AGING FEATURE PRODUCT** - Fox News, 2010

Beyond the awards, clinical trials and third-party validation for Liquid BioCell®, its Collagen/HA Matrix® Technology is backed by multiple US and international patents.

#### Q. Why do patents matter?

Patents help Modere protect our ingredients, processes and innovation. All 7 Collagen/HA Matrix® patents have been awarded based on the technology's unique composition. It's the first formula ever to feature Bio-Optimized™ collagen, hyaluronic acid and chondroitin sulfate in a matrix that mimics human body composition. The formula's usage and manufacturing process are also patented.

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### IN SUMMARY

The innovations pioneered by Liquid BioCell have set new precedents in the industry. While many companies have since followed our lead, none can match the unique combination of this single-source collagen, the Collagen/HA Matrix® composition and Bio-Optimized® micromolecule that makes Liquid BioCell® so effective. Only Liquid BioCell offers all of the following:

- Multiple industry awards
- 7 U.S. and international patents
- Clinically demonstrated benefits, backed by multiple double-blind, randomized, placebo-controlled human clinical trials
- Naturally sourced matrix (not a blend), consisting of hydrolyzed type II collagen (60%), hyaluronic acid (10%) and chondroitin sulfate (20%)
- Patented Collagen/HA Matrix® that mirrors natural articular cartilage\*
- Patented Bio-Optimized™ process that results in the ideal molecular weight for enhanced absorption
- Liquid delivery system
- Concentrated formula, requiring only 2 tablespoons per day
- Multi-faceted benefits extend to skin, joint and connective tissue health\*

### FAQs

#### **Q. Is Liquid BioCell® FDA approved in the U.S. or authorized for sale in Canada by Health Canada?**

Dietary supplements are subject to strict FDA regulations in the United States. However, whereas drugs require FDA approval prior to sale, the FDA does not approve or reject dietary supplements, including those derived from a natural source like Liquid BioCell®.

In Canada, Liquid BioCell® and products containing this ingredient are authorized for sale by Health Canada, the country's regulatory equivalent of the FDA (NPN: 80108933, 80090542, 80108932, 80096623, 80097727).

#### **Q. Where can I find more information about studies on Liquid BioCell®?**

More information about studies on Liquid BioCell® can be found on [modere.com/collagensciences](https://modere.com/collagensciences) and on individual Liquid BioCell® product pages, where you'll find our Science of Collagen brochure. Additionally, a list of scientific references can be found at the end of this document.

Every benefit claim we make is substantiated with scientific research. The FDA regulates supplement claims, and as a leader in collagen supernutraceuticals for over 20 years, Modere prioritizes FDA compliance. To avoid implied claims related to medical conditions or disease, we don't publish specific studies in our printed materials.

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### Q. How do I know Modere clinical studies are valid?

Our independent research is conducted via multiple double-blind, randomized, placebo-controlled human clinical trials and is third-party validated. These criteria are universally considered the highest standard for clinical studies in the scientific community.

### Q. Can you see visible results?

These are pictures of what Liquid BioCell has done for real people who took the daily dose for 12 weeks†.

BEFORE

AFTER



BEFORE

AFTER



### Q. Have any studies on Liquid BioCell® been published in medical journals?

Although selected studies on our ingredient have been published in peer-reviewed journals, Modere opts to strictly limit the publication of studies on Liquid BioCell in scientific journals in order to protect proprietary data. However, the physicians who sit on the Modere Scientific Advisory Board have had many years of experience using Liquid BioCell® successfully with their patients.

### Q. Where can I find trustworthy information about collagen?

Collagen is a buzzword right now, not only among social media influencers and beauty bloggers, but in the medical community as well. Unfortunately, many so-called “experts” are inadvertently spreading misinformation about collagen supplementation. While it is true that many collagen products are more hype than help, popular media figures and even physicians who make generalizations about unproven or false claims by manufacturers are often not educated on the latest research. Attempts to discredit collagen supplements do not take into account our clinical studies, which prove that the unique Collagen/HA Matrix® in Liquid BioCell® works very differently than typical hydrolyzed collagen..

When shopping for a collagen supplement, look for one that is backed by clinical research. Make sure that research cited includes direct references to the specific ingredient or product you’re considering.

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### Q. Is it safe to take multiple collagen products at the same time?

While we can't speak for other collagen brands, Liquid BioCell® has been demonstrated to be well-tolerated at doses of up to 30 times the recommended daily dosage of two tablespoons (30 mL) per day, according to toxicology studies. The recommended serving size is based on the dose determined to deliver the studied benefits.

Several Modere products feature Liquid BioCell®, including our Trim and Modere Logiq™ product lines. For a full daily serving when taking Liquid BioCell® alongside other Modere collagen products, you may mix and match your custom program based on the following recommended serving sizes:

RECOMMENDED SERVING SIZE	TOTAL DAILY DOSE EQUIVALENT
1 Tbsp Liquid BioCell® (all formulas)	= 1/2 daily dose
1 Tbsp Trim (all flavors)	= 1/2 daily dose
1 Packet Modere Logiq™ with TetraBlend™ Coffee	= 1/4 daily dose
1 Scoop Modere Logiq™ Creamer	= 1/4 daily dose
1 Liquid BioCell® Life Chew	= 1/4 daily dose

As with any supplement, it is always recommended that you speak with your physician before starting a new regimen and disclose any other supplements you may be taking.

### Q. Does Liquid BioCell® interfere with other drugs?

Liquid BioCell® is not a drug; it is a nutritional supplement. There is no evidence that Liquid BioCell® interferes with any medications. However, if you're on medication, we recommend that you speak with your physician before starting any new supplement.

### Q. Is it harmful to take collagen while pregnant?

No studies have been done on Liquid BioCell® during pregnancy. We encourage you to speak with your physician before starting a new supplement, whether or not you are pregnant.

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### USED & RECOMMENDED BY MEDICAL PROFESSIONALS

**Lisa Derosimo, MD, MS<sup>s</sup>** Diplomate of American Board of Obesity Medicine

*“Liquid BioCell can provide a way to age active and healthy. It is a naturally occurring matrix in a highly absorbable form. It is manufactured exclusively in the United States in an NSF, NSF Sport, cGMP registered facility. I use Liquid BioCell. My whole family uses it and I recommend it in my practice.” \**

**Jon M. Grazer, MA, PD, FACSS<sup>s</sup>** Board-certified Plastic Surgeon

*“Higher levels of HA and collagen equal younger-looking skin. Liquid BioCell has been helping some of my most high profile patients look their best.” \**

**Kelly O’Malley Mattone, MD<sup>s</sup>** Cosmetic Physician

*“From a scientific standpoint, Liquid BioCell® has undergone multiple randomized, controlled, double-blind studies. The results have been published in peer-reviewed journals. And as a physician, there’s no greater validation for a product. This is the top of the line, gold standard for a nutritional supplement.”*

**John A. Giannone, DVM<sup>s</sup>** Medical Director & Practicing Veterinarian

*“I believe if we supplement Liquid BioCell Pet in our pets’ diets and keep collagen and HA at a healthy level, then we would be giving their tendons and ligaments some form of protection.”*

### REFERENCES SUPPORTING LIQUID BIOCELL® COLLAGEN (A partial list.)

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† Actual results from a Modere Independent Representative. Individual results may vary.

§ Independent Modere representative

**\*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.**