

Collagen 101

THE ULTIMATE GUIDE TO IMPROVE
SKINCARE, JOINT HEALTH & ENERGY



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Author's Note

Hi, my name is Barbara Depta. I want to briefly share with you the reason I initially became interested in collagen. Unlike the trendy term today, “collagen” had nothing to do with beauty and energy back then. For me, it all started with a personal injury more than 29 years ago. A broken elbow, loss of range of motion, and fascia tightness all around the joint left me with more than physical pain; the injury left me feeling emotional pain that cut just as deep.

As a young gymnast at that time, I didn't even know what collagen or fascia were, not to mention how the health of both is directly linked to our beauty and well-being. Back then nobody actually knew for sure; there were just a few theories about fascia and health at the time. It wasn't until the late 90's, when Harvard University started to investigate fascia, that we started to get some answers on this phenomenal connective tissue.

Later in life I switched focus to be a structural balance and flexibility coach. I got certified in fascia stretch therapy in 2010 and ever since I've been fascinated by connective tissue, and its relevance to our health. This was still before collagen was considered “the new superfood”, so when I learned that fascia is made 70% of collagen it hit me how important our nutrition can be. I started to research how our daily habits and nutritional choices can contribute to the health of our collagen structures and the health of our fascia. Seeing how much my injury affected the functionality of my entire body and emotional balance ever since, I wanted to learn as much as I could on the subject of fascia and collagen. I wanted to pass the information to anyone who also wanted to generate clean energy, and deep - not just superficial - beauty, which is visible on your face, hair, and your nails as well.

There are so many lessons and valuable information I want to share with you. Yet, I need to start somewhere and in this first edition, I want to share the most essential facts about collagen. I truly believe with this fundamental information, you will be more equipped to make the best decisions for yourself and those around you. As a busy wife and a business woman, I know that staying energized and beautiful can be challenging. Yet I've found that nothing is more important for our professional and personal success, joy, and beauty than our energy. It

brings the best out of all of us. The fact that our energy levels affect every piece of our life shows that no superficial approach is going to give you lasting effects: beauty is more than skin deep.

You may skim through this book, picking and choosing what speaks to you, but a real understanding of what's holding you back from being more beautiful and energized won't come to you from the surface. Beauty doesn't come from a salve or lotion, energy doesn't come from a cup of coffee. Those superficial ways will leave you wanting more, and in excess can make your problems worse.

Instead, we suggest you go deep with this material. Vitalize your body, clear your skin, and strengthen your nails from within, as nothing in life that matters is depthless.

I hope this book will serve you well, please share this data and consult it further with your nutritionist, health coach, dietitian, or any other health professional who might be helping you with your diet. References to recent scientific research are included throughout to help you and your healthcare provider understand the latest science in this field. I know that I've talked with professionals who didn't think that collagen health is all that important, but quality research and empowered patients are helping to turn that idea around!

Please note, this book is for educational purposes only. It is meant to help provide clarity on the subjects of collagen, diet, and how you can support your own health. The information in this book does not claim to diagnose, treat, or cure any medical conditions. We provide you with quality information so you can work with your doctor and other healthcare practitioners.

Just by picking up this ebook, you are taking steps to live and feel your best, in your energy, your health, and your beauty - both inside and out.

It's time for us to clear up some existing inconsistencies on what's out there about collagen and it's time for you to add clearer skin and deeper energy to your day.

Enjoy it!

Acknowledgments

I would like to extend my gratitude to Registered Dietitian, Detrick Snyder, for his assistance and contribution to the research and editing of this this book. Detrick and I share a mutual belief that nutrition is one of the most important keys to our energy, beauty and overall health.

Introduction - You Look and Feel What You Eat

Today to be a woman who's healthy, beautiful and at the same time consistently energized, you are expected to be tireless, efficient, and emotionally poised. That means you need to pay attention to your diet and supplement supportively when needed. I want you to know, your nutrition affects every part of your body, from the most superficial skin layer to the deepest internal structures. You have probably heard the saying "You are what you eat" right? When it comes to skin, hair, and nail health this is especially true, but I would like to place particular emphasis on it. How you eat is how you feel. How you eat is how you look.

Right now, I would like to take the opportunity to share with you how a protein called "collagen", the magical word that got your attention to read this ebook, is one of the most important elements for your connective tissue and overall well being. Every day you can build it up by eating foods naturally high in collagen protein, or by supplementing with clean, well composed collagen combined with antioxidants, which combines uniquely targeted ingredients that add up to provide even greater benefits. Those extra benefits? What I want, and what you want: a body brimming with both energy and beauty.

And that is why I created **Resync Collagen Blend - Resync Your Joints**, the Revolutionary Collagen that we will talk about later in this book. Just in few words, it was made from clinically studied hydrolyzed collagen peptides in conjunction with a proprietary natural nitric oxide blend based on standardized red spinach (*Amaranthus tricolor*) leaf extract, red beet (*Beta vulgaris*) root powder, aronia (*Aronia melanocarpa*) berry extract, calcium fructoborate, hyaluronic acid (as sodium hyaluronate) and vitamin C. It was truly formulated to deliver functional nutrients that optimally support clean deep energy and connective tissue health. †

What you will learn from reading this ebook:

- What is connective tissue made of and why is it so important for our energy and beauty?
- What are the most common ways our joints and connective tissue around your body are damaged and how do we know when we need to seek action?
- What should we be doing for radiant skin, healthy nails, strong hair, optimal heart health and constant levels of clean energy?
- What do researchers and doctors say about using a supplement like Resync's Collagen Blend?
- How does Resync stand above other collagen supplements as a safe and effective way to support beautiful skin, healthy aging, and lasting, positive energy?

If you want the tactics that will support your overall well-being by supporting what keeps your body responsive and connected, this ebook is for you!

Collagen and Elastin: Why Should I Care?

Connective tissue is comprised of two major proteins that we will elaborate on more: collagen and elastin. Elastin has the capability to stretch and spring back into shape, making it an integral part of tendons, ligaments and skin [Anwar 1990; Labat-Robert and Robert, 2014]. Elastin is what moves your skin back into shape after you get poked. Strings of elastin are what connects your muscles to your bones and allows you to move your body however you choose, in effortless way.

Collagen is the main component of the connective tissue that holds your entire body together [Arora et al., 2017]. Many people think of it as inert, but in fact it is a dynamic, continuously moving and changing part of all your connective tissue, from your beautiful skin to your resilient bones. Collagen provides structure and tension in tissues and their surroundings. The more collagen-rich your fascia is, the more tensile strength it has, meaning it is more stable and better able to transmit the force of your body movement.

Collagen is the most common protein in the human body, accounting for 30% or more of your body's protein. After water, it is the second largest piece of fasciae, making it the most important part of human connective tissue. Isn't it fascinating how much collagen is inside our bodies?

How collagen is structured – the “collagen architecture” - is the key to your connective tissue functionality. A healthy collagen architecture provides benefits like dynamic stability, unloading of your muscles, and elasticity - all of which allow you to conserve energy instead of consume energy whenever you move. Few pages below, you will find interesting images emphasizing this subject.

Collagen essentially consists of three long protein chains that form a triple helix. When relaxed, healthy collagen is elastic and mobile; when pulled tight, the fiber spirals intertwine and give stability. That stability is so great that collagen has more tensile strength than steel! Collagen fibers are the strongest and most abundant of all the connective tissue fibers, and their balance of flexibility and stability plays a pivotal role in the responsiveness and functionality of your connective tissue. It slowly renews over a period of several months, which has special implications for health and physical performance.

Healthy connective tissue and connective tissue integrity is particularly important for [Henry 1957]:

- Menopausal women - in the first 4 years of menopause, the collagen building decreases by up to 30%.
- Anyone with a physically demanding lifestyle – high levels of activity places more demand and results in more turnover on your collagen.
- Athletes
- Healthy agers
- People with connective tissue problems
- People with chronic inflammatory conditions and excessive wear and tear on their bodies

It doesn't matter your age or activity level, the benefits you can get from having healthy collagen will help you experience life the way you want to.

The Best Types of Collagen for Beautiful Skin

Your body mainly consists of three types of collagen: types I, II, and III. There are other types (IV, V and X), but these three are the most common, and most important for your health and beauty.

- **Type I collagen** accounts for about 90% of the body's total collagen content. It is mostly found in the connective tissue of the skin, bones, tendons, ligaments, and heart.
-
- **Type II** is joint collagen found in cartilage.
-
- **Type III** is found in your skin and muscle tissue.

With age, the ratio of the different types of collagen in the tissue changes and levels typically decrease. Please also note, the type I and III are considered to be the most abundant types of collagen in your body.

Collagen Content in the Body

Being the most common protein in your body, it's no surprise that collagen makes up a large part of every one of your internal organs. What's surprising is how much we might take for granted the importance of keeping the glue that holds us together healthy and beautiful!

- Bones ~ 90% of the hard part of bone; 25% of the entire bone by weight
- Skin ~ 75% collagen
- Joint cartilage ~ 70% collagen
- Ligaments ~ 70% collagen
- Tendons ~ 85% collagen
- Fasciae ~ 70% collagen
- Muscle tissue ~ 6% collagen

It is important to note that both collagen and elastin are easily damaged by inflammation [Adair-Kirk and Senior 2008]. Inflammation can result in a number of different negative outcomes, ranging from wrinkles to autoimmune conditions like rheumatoid arthritis and lupus. It's quite obvious even by now, to notice that connective tissue is not a passive player in your personal wellbeing; it connects everything you do and so it plays a pivotal role in every person's health [Adair-Kirk and Senior 2008].

The 5 Essential Benefits of Collagen

Yes, your body can produce collagen on its own! But even if it can, that doesn't mean it will work best without added support. Like the tides keeping tide-pools alive with fresh nutrients, every day your blood comes in waves that provide the nutrients to build collagen and take away damaged materials. It's great news that your body is able to make its own collagen, but when we age we lose flexibility, our metabolism slows down, and the process of rebuilding collagen gets slower and slower. Nourishing your connective tissues with a healthy diet and effective supplementation can help ensure that those waves can clear out damaged, unwanted tissue and are delivering a rich source of the best building blocks.

Our ancestors believed that eating a specific part of an animal can help with issues with that same part of our own body. **How you eat is how you feel. How you eat is how you look.** That principle particularly applies to collagen and elastin health, but the benefits extend well beyond just improving joints and tendons. Some other benefits [Daneault et al., 2017] of getting collagen in your diet include:

1: Providing your body dynamic stability

Who doesn't want to be more stable, especially as we age?

2: Unloading muscles to move effortlessly

Who doesn't want joyful and graceful movement everyday?

3: Assisting your elasticity and flexibility

Greater range of motion? Yes, please!

4: Supporting force-transmitters,

Want to conserve your energy instead of wasting it?

5: Improving joint discomfort and stiffness

Are you the one in four American adults who suffer from arthritis?

Besides these 5 critical benefits, getting extra collagen in your diet can help prevent excessive tissue damage, injuries, prolapses, stretch marks and wrinkles, and arthropathies (unwanted joint conditions) such as osteoarthritis. Beyond that, the nutrients in collagen support and maintain the growth of other connective tissues and healthy hair, skin, and nails [Connective Tissue 2018; Henry 1957]. Everything you do is affected by the health of your collagen, so it makes sense that getting a good and clean source of collagen proteins can be a targeted solution to optimize your total functionality.

Keep in mind, not all protein or collagen products are the same. As we will discuss later, different products are differently absorbed and used by the body, not all of them provide proven benefits, and there is a range of quality to look out for. You also have to pay attention to the other things you put in your body to get the daily vitality that healthy connective tissue provides.

When we lived in caves and hunted our own food, collagen was a regular part of our diet. This is just one reason why supplementing with clean, hydrolyzed collagen peptides - the form of collagen that your body prefers, featured in **Resync Collagen Blend** - should be part of your regular menu. It provides not just the building blocks for healthy connective tissue, but also the synergistic nutrients to optimize your body's ability to use them.

Why hydrolyzed form of collagen is better for you? Because hydrolyzed collagen peptides have higher (more than 90%) absorption rate.

Read more about the other valuable aspects worth paying attention to when choosing your collagen source in the last chapter of this ebook.

Why You Should Care About Fascia To Stay Energized

We've already covered collagen, the most well-known part of your connective tissue, now let's dive a little deeper into the importance of "fascia".

You may have heard or read a bit about it, but I want to deliver some solid data that you can use to enhance your daily performance, energy, and beauty.

For the purpose of this ebook, I'm not going to bore you about my personal injury, the recovery progress, and my personal growth from it. Suffice it to say, this critical tissue had a huge impact on my personal and professional life: the more I learned the more I had to help other people understand it. I've seen the same story in people of all walks of life: cycling between injury and recovery for years, sometimes people don't have the tools to get the life they once had back. Over and over its been made so clear to me that not enough attention gets paid to fascia and collagen in healing and preventing injuries.

For now, let's go into what fascia is, why I emphasize it so much, and how giving it the attention it deserves can help you.

Fasciae (the plural of "fascia") are bands or sheets of connective tissue - about 70% of which is made up of collagen - located beneath the skin that attach, stabilize, surround, and separate muscles and organs [Abd-Elgaliel and Tung 2013; Schleip et al., 2012]. Essentially, fascia is the connective tissue that connects other connective tissue, and collagen play a massive role in this. 70% is a huge proportion, wouldn't you say?

In 2012, Robert Schleip and other fascia experts clearly defined what fascia is made up of: collagen, elastin, water, and "ground substance".

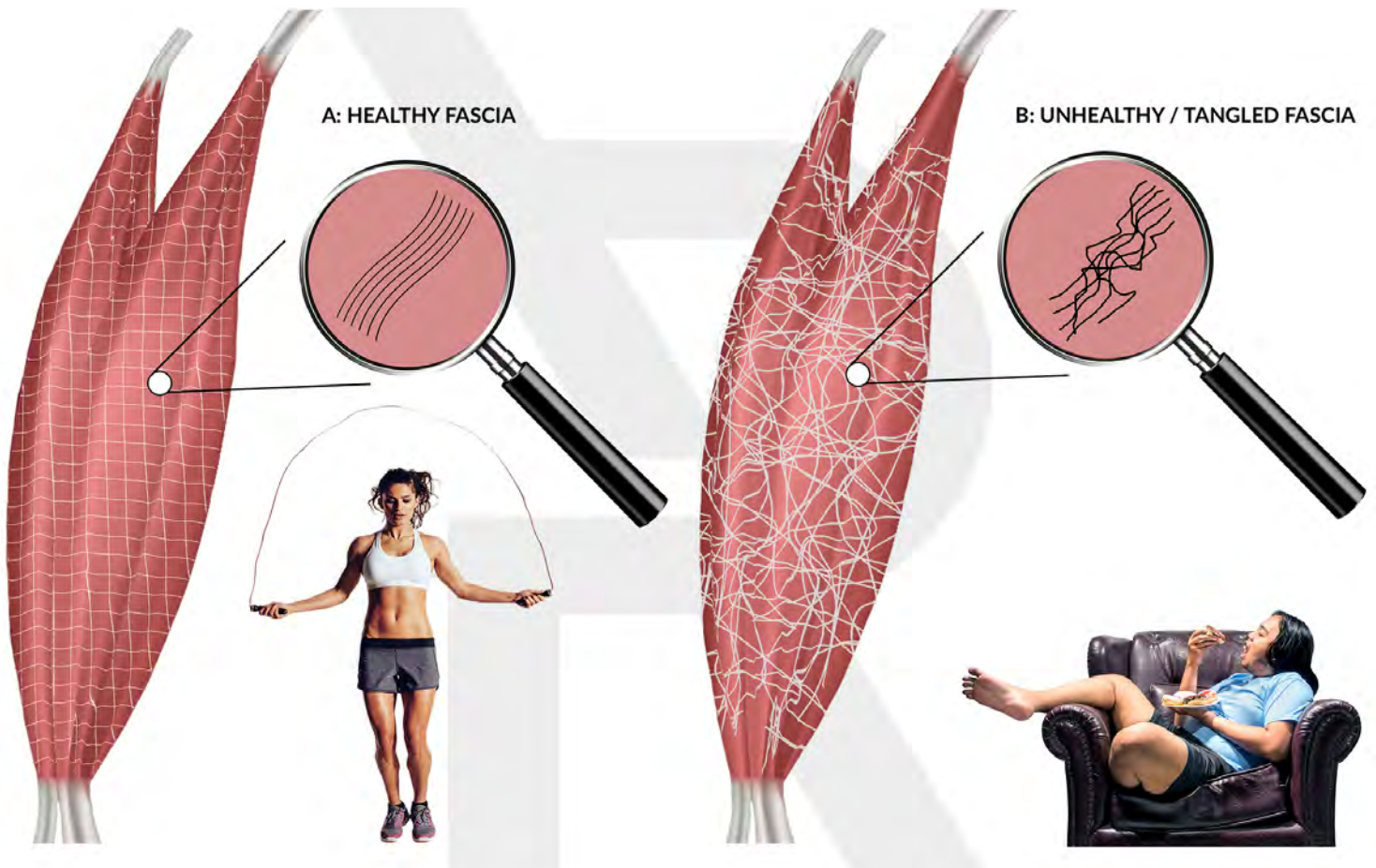
Collagen as you already know, is the glue that holds your fascia together. The more rich the fascia is with collagen ("collagen density"), the more tensile strength it has, the more stable it is, and the more force it is able to transmit [Wu et al., 2017]. Remember that maintaining collagen health isn't a "one and done" ordeal. Collagen is built over the course of months, so a steady flow of proper nutrition is required to maintain its best function.

Elastin Fibers are found in highly adaptable fascia layers such as the skin, blood vessels, and elastic cartilage (like the ear and the tip of the nose). Elastin fibers are also present in the deep fascia of the bones, muscles, and nerves; in fact, some ligaments like the ligamenta flava that holds your spine together are almost entirely made of elastin fibers [Mithieux and Weiss 2005]. Elastin also takes several months to renew, which makes supporting it a slow and continuous process.

Water is the second largest component of your fascia. Most of the water in fascia is bound to collagen, like the fluid absorbed by a wet sponge. Only some of the water in fascia is free flowing, the rest is incorporated into the very structure of fascia. What a reason to stay hydrated!

Ground Substance is a gel-like substance that contains some of the building blocks of collagen and connective tissue. It's the "in-between" space in the structure of fascia.

To form fascia, these connective tissues are closely packed in bundles of collagen fibers and arranged in a wavy pattern in line with the direction of your muscle's pull. If your fascia is healthy, it looks smooth and nicely organized, but if you are inactive or eat a lot of unhealthy, inflammation-causing foods, it can look tangled, knotted, and truly unattractive. As you can probably guess, the lower the quality of your food and movement, the less healthy your fascia becomes.



Just because you can't see it, it doesn't mean you shouldn't take care of it. Paying attention to what you eat and how you move can pay off in the long run for a part of your body that's not all-that-obvious. As I mentioned in the beginning, nothing in life that matters is depthless.

Why Should You Care about Cartilage To Stay Energized

I know, you may ask, why do we need to talk about cartilage when we discuss energy and beauty? Well hold on for a minute, I will explain how its deeply correlated.

First and foremost, cartilage is a flexible, smooth, and elastic tissue made up of collagen. Which is the reason I want to talk about it: it acts like a rubber padding that covers and protects the ends of long bones at the joints. It is a key structural piece of the rib cage, ear, nose, airways, spine, and many other parts of your body. It is not as hard and rigid as bone, but it is much stiffer and much less flexible than muscle [Mahon and Dunne, 2018; Vincent and Wann, 2018].

Healthy cartilage protects your joints and bones by absorbing the pressure and shock created during normal movement. Having healthy, resilient cartilage supports your energy by allowing you to move painlessly and effortlessly. That is why I had to share with you a few words about cartilage

Not Paying Attention to Your Joints Can Have Major Consequences!

I know you may ask again, Barbara why do you talk about joints, when I just care about my energy and beauty? Well, like I mentioned before, you cannot talk about beauty and energy, if you cannot move effectively and gracefully, would you agree?

Normal daily wear and tear causes a necessary and healthy inflammatory response. A healthy body with the building blocks it needs can respond to this inflammation with the appropriate anti-inflammatory processes to create stronger and healthier joints. That's when your diet plays a major role.

When your body can't keep up with the damage though, the inflammation becomes chronic and can ultimately lead to joint pain, inflammation, and other negative consequences, like even arthritis. An accidental injury or infection in the joints can make this natural breakdown of cartilage tissue even worse. The end stage of such severe inflammation - "**osteoarthritis**" - is defined by a significant reduction in the normal amount of cartilage [Mahon and Dunne, 2018].

Furthermore, hereditary or family history of chronic inflammation and arthritis can appear over and over in families [Mahon and Dunne, 2018; Vincent and Wann, 2018]. Although many factors play into your joint health, only some of them are outside your control.

I personally believe, you are in full control of your well-being everyday. And food is a major player in the game of beauty and energy.

When to Consider Seeking Help From a Health Professional

Advancing age, routine wear-and-tear, and processed foods are all factors that can start an inflammatory process that saps your energy, leads to joint problems, and lowers your performance. Ultimately these conditions can lead to severe joint pain and osteoarthritis [Fu et al., 2018; Miller et al., 2018] Interestingly, arthritis is more common in women than men and in people who are overweight.

I think it is valuable to understand that when connective tissue health is not maintained, osteoarthritis progresses in five steps [Fu et al., 2018; Miller et al., 2018]:

1. **Joint Pain:** Pain is the classic sign of arthritis. Joint pain can occur anywhere in the body. It might pose a consistent problem or it may occur only occasionally. Your joints might be painful during movement or at rest.
2. **Joint Swelling:** Swelling may occur for two main reasons: either (1) “synovitis”, where the lining of the joint, known as the synovium, swells or (2) the synovial fluid increases in volume, causing fluid to leak into places where it doesn’t belong. Generally, joint swelling may occur and persist for over three days or longer and may come up multiple times a month. It happens in all the joints, but is especially common in the elbows, knees, and ankles. The skin surrounding a swollen joint becomes red, puffy, painful, and warm.
3. **Joint Stiffness:** Joint stiffness may occur with or without joint pain and it can affect any joints in the body. It’s most common after being inactive, like getting up from sleep in the morning, after sitting at a desk for long periods, or a lengthy commute. Generally, if morning stiffness lasts for more than one hour, it’s a good idea to check for other signs of arthritis with your doctor.
4. **Inflamed Joints:** Inflamed joints can induce morning stiffness or persistent pain, and are another possible sign of arthritis. Acute inflammation is very painful and can last for one hour or more. During this time, movement becomes very difficult and is often accompanied with aches. In osteoarthritis, a common feature is joint stiffness after exercise. Seek help from a medical professional if you’re concerned about chronic joint inflammation.
5. **Decreased Mobility, Lethargy, and Fever:** Chronic inflammation and pain may make even simple movements like getting up from a chair difficult. Inflammatory states can create a negative response in other parts of your body like your eyes, kidneys, immune system, and even your skin. Untreated, arthritis can lead to feeling lethargic, being prone to fevers, and can compromise the quality of your life.

With **Resync Collagen Blend - Resync Your Joints**, we help create resilient and adaptable fasciae by supporting optimal collagen density and strong architecture around your joints. This blend provides the essential building blocks your body needs and bioactive natural ingredients to make sure those ingredients get to where they need to go. When it’s hard to get the right nutrition in your diet, Resync can be an easy and effective way to support your collagen health and energy.

The 4 Keys to Support Your Body's Natural Production of Collagen

We can take control of some things in our lives to make up for those that we can't. Try these science backed tips to maximize your collagen health:

1. **Eat healthy carbohydrates, protein, and fats** to supply you with continuous energy. Vegetables and fruit, wild and free-range animal products, and liquid oils are the most common foods that you can easily get more of with a few easy changes. Avoid processed foods with fillers, refined carbohydrates, added sugar and fats and burnt or deep fried foods - these sap your body's inflammation-fighting power and leave you feeling drained yet somehow wanting more.
2. Support your body's collagen-making machinery by getting **amino acids from a collagen supplement** and other collagen sources. The specific amino acids glycine, proline, and hydroxyproline can be made by your body, but some experts think that our bodies might not be able to make enough to keep up with the damage and renewal that our joints require. Add to this the fact that nowadays we don't eat nearly as much collagen-containing meats that our ancestors did, and it makes sense to include a good supplement in your diet. Other collagen sources include bone broth, fish scales, and bone marrow.
3. Eat **omega-3 fatty acids** like flax oil, fish oil, fatty fish, and nuts. Omega-3s play a huge role in fighting inflammation but they are hard to come by in a typical diet if you're not eating or supplementing with them regularly.
4. Make sure you get enough vitamins and minerals in your food. Learn more about this next.

The Vitamins That Actually Work To Keep Your Skin Looking Young

Skin-care supplement companies often hop on the next trend and push vitamins that won't do much for you. For example, you may have seen the vitamin 'biotin' in single-ingredient supplements that are supposed to make your hair, nails, and skin healthier. I have some bad news to break. Biotin is probably only effective for nails if you're deficient in it or if you're body doesn't use it properly - which is very, very rare [Shari R. Lipner 2018]. The list of glamorized vitamins for your beauty goes on - if there's a shred of science that says it could be helpful, it has probably been sensationalized for the profit of companies and the expense of you.

It's unlikely that a single vitamin is going to provide the miraculous benefits advertised by some. It takes a coordinated approach that hits the problem from every angle to see real change. That's why **Resync Collagen Support** is formulated to help multiple energy and beauty-support systems, from ingredients that stimulate collagen building to the key building blocks themselves and on to the antioxidants that keep the system running smoothly.

There is another way to market beauty supplements, and that's 'accurately'. We reviewed the scientific literature to figure out what nutrients you need to support healthy collagen, and then we went further.

What are the nutrients you need to support the systems themselves that help keep your collagen and fascia healthy? If you want to know what nutrients work to keep a healthy, resilient system, you've come to the right place!

Support Your Collagen Indirectly

S-adenosylmethionione (SAM) is the 'universal methyl donor'. If that doesn't ring a bell, don't worry about it! All you need to know is that it plays a huge role in letting your cells talk to each other to repair damaged skin, make new cells, detoxify, express your genes... the list goes on. You can supplement with it, or you can get methyl groups in foods rich in B vitamins (see more on that below).

Glutathione is your body's master antioxidant. It's your first-line defense against toxins, inflammation, and oxidation. Although studies are mixed as to whether supplementing with glutathione will increase your own glutathione levels, there are many other ways to make your own glutathione. It might surprise you that the best of these are getting enough sleep and regular exercise. Managing stress and eating lots of colorful plants, healthy fats, and cutting out processed foods and sugar are sure-fire ways to up your antioxidant power.

Methylsulfonylmethane (MSM) is a supplement that provides many of the benefits that increasing glutathione can. Studies show that it may decrease oxidative stress, inflammation, and joint pain caused by osteoarthritis.

Support Your Collagen Directly

Besides collagen itself, **chondroitin, glucosamine, and hyaluronan** are important parts of your joints and collagen-rich tissues. When your collagen breaks down, the amounts of these nutrients go down. Supplementing with each of them has been shown to offer some benefit for people with joint issues.

SUPPORT YOUR COLLAGEN WITH VITAMINS

VITAMIN C

is the most important vitamin for making collagen. Besides being an antioxidant that can help boost your defense against certain toxins, vitamin C is required for turning proline into hydroxyproline, which makes up part of the triple helix structure of collagen that gives it its flexibility.

VITAMIN D

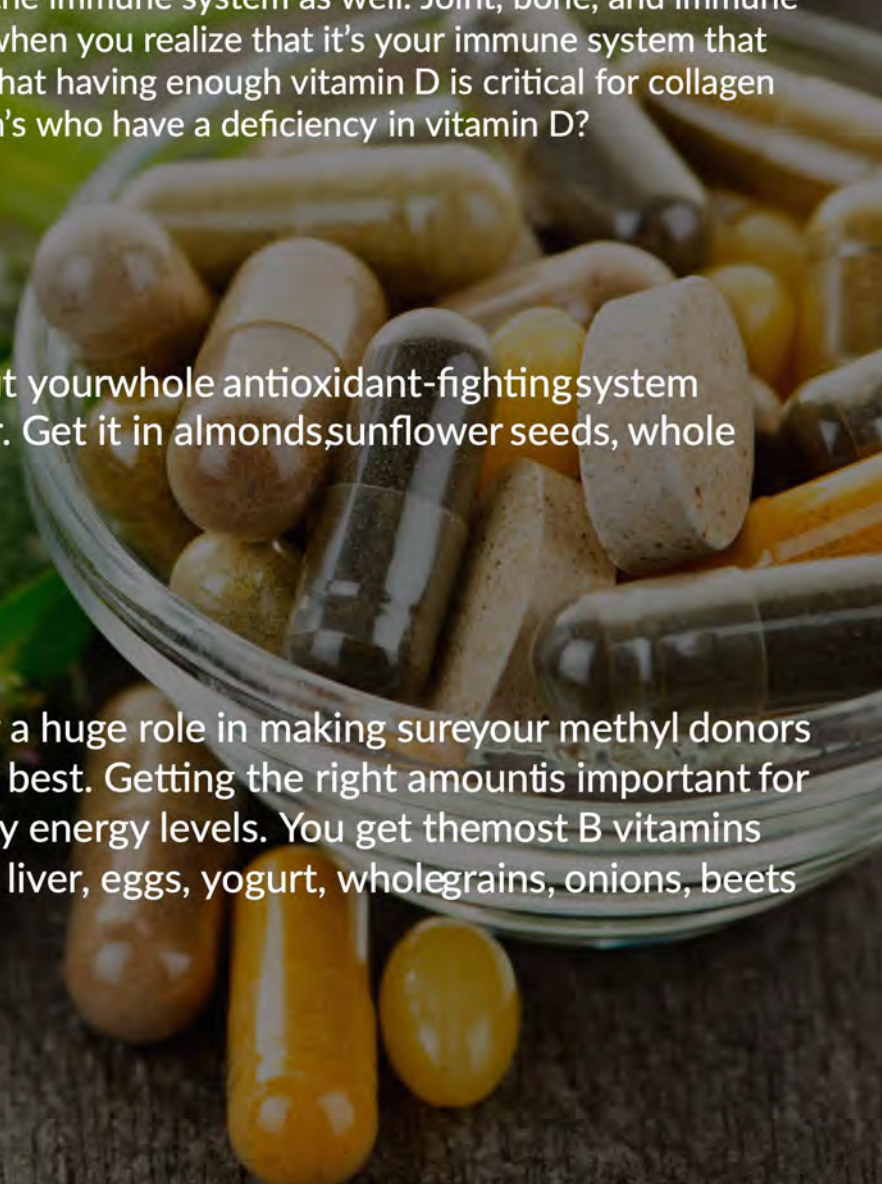
is commonly known as the most important vitamin for bone health. Scientists are finding now that vitamin D has a very important function in the immune system as well. Joint, bone, and immune health might not seem all that related, but when you realize that it's your immune system that responds to inflammation, it's crystal clear that having enough vitamin D is critical for collagen health. Are you one of the 25% of American's who have a deficiency in vitamin D?

VITAMIN E

is a powerful antioxidant that helps out your whole antioxidant-fighting system and may help your collagen heal faster. Get it in almonds, sunflower seeds, whole grains, and extra virgin olive oil.

VITAMIN B COMPLEX

includes all the B vitamins. These play a huge role in making sure your methyl donors (see SAM above) are functioning their best. Getting the right amount is important for heart health, mental health, and steady energy levels. You get the most B vitamins when you eat nuts, seeds, beans, fish, liver, eggs, yogurt, whole grains, onions, beets and green leafy vegetables.





Support Your Collagen With Minerals

Earlier we pointed out that vitamin C is the most important vitamin because it helps create the collagen structure. In a similar way, the minerals **manganese** (not “magnesium”), **zinc**, **iron** and **copper** either activate collagen proteins or directly help create collagen. Each is in different levels in different foods, but generally speaking, seafood, healthy meats, whole grains, nuts, and seeds are good sources.

There are plenty of other nutrients vital for collagen. **Calcium**, **Phosphorus**, and **Magnesium** are a few other important ones. If you’re eating a colorful, varied diet of whole foods, you are probably already eating the right things to optimize your collagen health! However, natural sources of collagen are hard to come by. You can eat all the delicious, nutritious salads you can, but if you’re not getting collagen too, you’re changing your car’s oil without giving it gas. And if you’re one of the many who don’t have the time, energy, or resources to make a balanced diet happen all the time, you can give yourself a bit of insurance by supplementing with the nutrients that you most need for your sustained vitality.

What Can Resync Collagen Do For Me?

Be a Billionaire Of Collagen: What Solutions Get You Lasting Results?

When collagen peptides are taken regularly, they visibly reduce the depth of wrinkles, and the skin gains moisture and tone [Asserin et al 2015]. This effect can’t be ‘hacked’ with an easy-fix, topical skin care ‘solution’ - you have to treat the problem at its source: what you eat truly matters.

Topical solutions alone will not do the magic, period! You probably have heard from your dermatologist that applying antioxidants and vitamins topically can be beneficial to your health and beauty, but it will not provide lasting results.

A top dermatologist and owner of a medical spa in Palm Beaches, Florida, Dr. Navarro thinks that “...Women should be billionaires of collagen and not wait till everything is on the floor to try to pick it up...you should supplement with collagen early on” [Dr. Navarro 2019]. By supplementing with collagen you make sure those key nutrients are there for your cells to use when they need them. If you don’t have enough free nutrients to support your collagen, your body might be frugal with how it uses them. Flood your system with the currency of collagen and your cells will be able to spend as much wherever they need it.

“[Resync Collagen Blend] is actually something that’s going to prolong your life, make you look beautiful, keep what you have. It doesn’t make any sense for me to inject you with all kinds of fillers. The point of the fillers is to give you more volume, but you also want it to stimulate your own collagen and elastin. Well, if you’re not taking in collagen and elastin, that filler is going to be there and six months later going to be completely gone. Whereas my patients ... when they start taking this product, they notice a difference.” ~ Dr. Navarro [2019]

Why? Because topical beauty remedies reach only the outer layers of the skin, their effectiveness is short-lived. Ointments or creams or filler injections alone cannot sustain the beauty women look for. When you add collagen peptides to your diet, you support healthy connective tissue - including fingernails, hair and even cellulite - from within, leaving you feeling better and looking better than ever.

Better Energy Without Doping

Many studies have shown that a number of things you eat can improve your stamina, and protein is among them. Just 10 grams of collagen protein mixed with a healthy source of carbohydrate can result in positive, clean energy. Compared to a typical sports drink full of short-lasting sugar, the collagen peptides in Resync can help regular people recover significantly faster from workouts and feel less muscle soreness [Clifford et al. 2019]. Combine this with the fact that endurance exercises strain your protein stores, and it’s all too obvious that a source of collagen is crucial to your daily health. Whether you’re a trail-runner or an elite mom (or both!), when you’re able to recover faster, you can perform at your best day after day.

For connective tissue health and feeling your best the days after, hydrolyzed collagen is the optimal protein source for any physical activity. And what’s even better, **Resync Collagen Blend** comes with added benefits – antioxidants and nitric oxide precursors - that support your whole energy renewal system. Clean energy plus faster recovery is a formula for your best performance, day in and day out.

Radiant Complexion - Every Woman’s Dream

Nowhere in the body is aging more apparent than in the complexion of your skin. We would all agree that firm, and wrinkle-free skin is the privilege of youth. From the mid-twenties on, our connective tissue starts to “shrink” because it’s not able to store as much water. This loss of hydration is why we start to see more and more wrinkles from the forehead down as we age. It’s no surprise then that studies have shown that a source of good quality collagen in your diet can lead to healthier, hydrated and younger-looking skin [Asserin et al 2015].

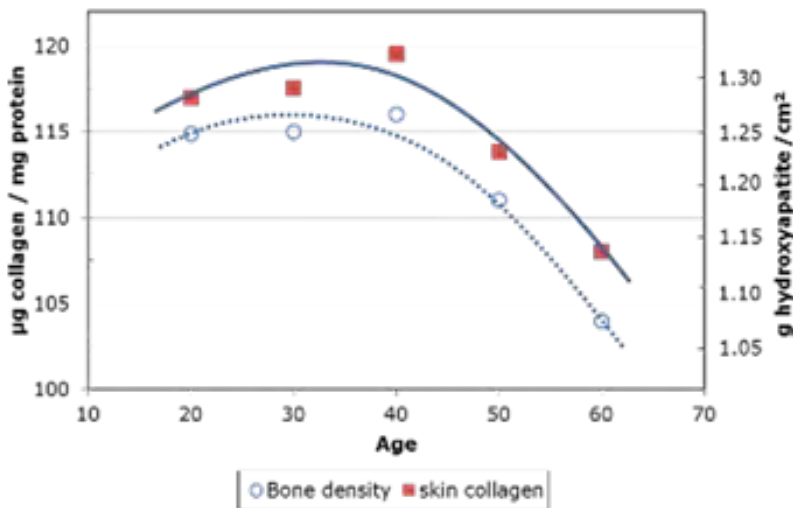
In fact, the specific collagen used in our Resync Collagen Blend has been studied for it’s hydrating effects on skin. With just 5 grams per day of the same collagen in Resync, 45 to 60 year old women had significantly decreased wrinkles and the water content in their skin increased by 12 to 28% after 8 weeks [Peptan 2019]. This rigorously designed clinical study stands with a number of others that consistently show the benefits of supplementing with collagen peptides for skin health.

Besides being researched, Resync's Collagen Blend has also been tested for banned substances and certified by the top 3rd party testing company, Banned Substances Control Group. You can be sure that what's on the label is what's inside the package.

Slow Down Aging

Collagen damage happens in young people's bodies, but they are able to build it back up faster and more effectively than people with a few more years behind them. At some point, most likely in the mid-twenties, the process of damage and repair starts to get out of balance and you begin to notice the difference.

Yet, when exactly this becomes obvious for the first time and how the aging process proceeds depends on different factors. Genetics plays a role, but how we treat our body along the journey of life is just as important – especially since we can actually do something about that. Most people know that intense exposure to the sun, an inadequate diet, a poor exercise plan, and too much stress all negatively influence the appearance and health of our skin. What may be less obvious is that this kind of unhealthy lifestyle also enhances the breakdown of your valuable proteins and destroys the collagen along with it, adding insult to the original injury.



Decrease in skin collagen ($\mu\text{g collagen/mg protein}$) and bone mineral density ($\text{g hydroxyapatite/cm}^2$) are associated with age. Figure adapted from: Castelo-Branco C. et al. [1994]. Recent evidence has shown that supplementing with 5 grams of collagen per day for a year improves bone density [König et al. 2018].

You can see in this chart [Castelo-Branco et al 1994] that collagen and bone mineral density start declining after about 35.

Sometimes, like if you are pregnant, there's nothing you can do about naturally decreasing collagen and bone status. However, a recent landmark study showed that simply adding 5

grams of a collagen peptide similar to Resync's every day for a year can improve bone mineral density in post-menopausal women [König et al. 2018]. Simply making a new daily habit can provide your body with the raw materials and the stimulus to use them so you can rest assured that you're doing the best for your longevity.

Attractive Fingernails, Strong Hair, Beautiful Skin

Even though your hair and fingernails are not made of collagen, the blood vessels that supply them are. The hair roots and the cells that make nails need constant supply of proper nutrients, so making sure your heart is healthy is important for outer beauty. The way the **Resync Collagen Blend** supports your collagen and heart health can then directly support your skin, hair and nails to make you look and feel full of vitality.

That same study done with 45 to 60 year-old women showed promising results for hair strength, too. 5 grams per day of the collagen peptides were shown to make their hair about 6 times stronger in just 8 weeks. I don't know about you, but to me that sounds like the end of split-ends! I personally know how much Resync Blend is supporting other women's hair beauty, as one of the US-based professors called our office to share his wife's story about it. He said, "Barbara, can I please get more of that product, as my wife swears that it strengthens her hair..." I was thrilled to hear that, as until then I heard many stories about recovering faster from knee surgery, or getting rid of a persistent neck pain, but I never got a phone call which made it clear that the collagen blend I initially created to support the connective tissue health and energy of elite athletes was helping women, just like myself, across the country. You can imagine phone calls, like the one from that professor, continue to motivate and pull me forward in this journey. I am extremely joyful to share just a few of the stories with you here today.

And, because of stories like this one, we decided to invest even more money into a clinical study, which will test both of our Resync blends. It will take place this September 2019 in a US based college. We should have our results by the end of this year, and I will make sure you will hear about them.

Pharmaceutical vs. Nutraceutical to Support your Energy and Beauty

As you know significant number of conventional medications can be effective, but they are frequently associated with serious, and sometimes even life-threatening, side effects. Used for millennia in traditional herbalism, medicinal plants ("nutraceuticals") can be a promising alternative with a better safety profile and comparable efficacy [Dragos et al., 2017].

Natural nitric oxide precursors like those found in the **Resync Collagen Blend** have been clinically researched for safely lowering blood pressure in people with hypertension (high blood pressure) [Lara et al. 2015]. I am not saying that you should ditch the medications your doctor prescribes. I do encourage you to work with your doctor to find a safe natural supplement routine that can complement a healthy lifestyle and diet so you can minimize the need for drugs with nasty side-effects. The unique formulation of Resync Collagen Blend delivers the beneficial antioxidants and natural nitric oxide precursors to support oxygenation and your daily vitality alongside the raw materials to make the blood vessels themselves stronger.



DELICIOUS
WAYS TO USE
RESYNC ON
YOUR MENU

WARM BEVERAGES

A glass mug filled with red tea being poured from a glass pitcher, with a tea strainer containing dried herbs in the foreground.

Collagen tea is a fast, healthy and delicious idea. Tea has the added benefit of containing a natural chemical (EGCG) that might prevent joint damage. Why not collagen coffee? Well, the rich, fruity taste of Resync lends itself well to mild drinks, and coffee is just too strong a flavor to mix well with.

COLD BEVERAGES

Our collagen peptides can be added to a fresh squeezed fruit or veggie juice, and work especially well to enhance the flavor and nutrition of smoothies and shakes.



FOODS

(BREAKFASTS, SNACKS,
BAKED GOODS)

YOU CAN MAKE SIMPLE, QUICK, AND HEALTHY COLLAGEN OATMEAL, WAFFLES, PANCAKES, OR CLEAN PROTEIN MUFFIN RECIPES. SINCE RESYNC COLLAGEN DOES NOT DEGRADE UNDER HEATED CONDITIONS, YOU CAN BAKE AND COOK WITH IT. IT RETAINS ITS NUTRITIONAL VALUE THROUGHOUT THE PROCESS. CHECK OUT THE RESYNC RECIPE BOOK FOR MORE FLAVORFUL IDEAS!





Resync provides the essential building blocks for a healthy body that can handle whatever you throw at it. As a complement to your cabinet, the Resync Collagen Blend tastes great, mixes well in different recipes, and can be a fast source of clean energy. We make getting the right nutrition to support your lifestyle actually fit into your lifestyle.

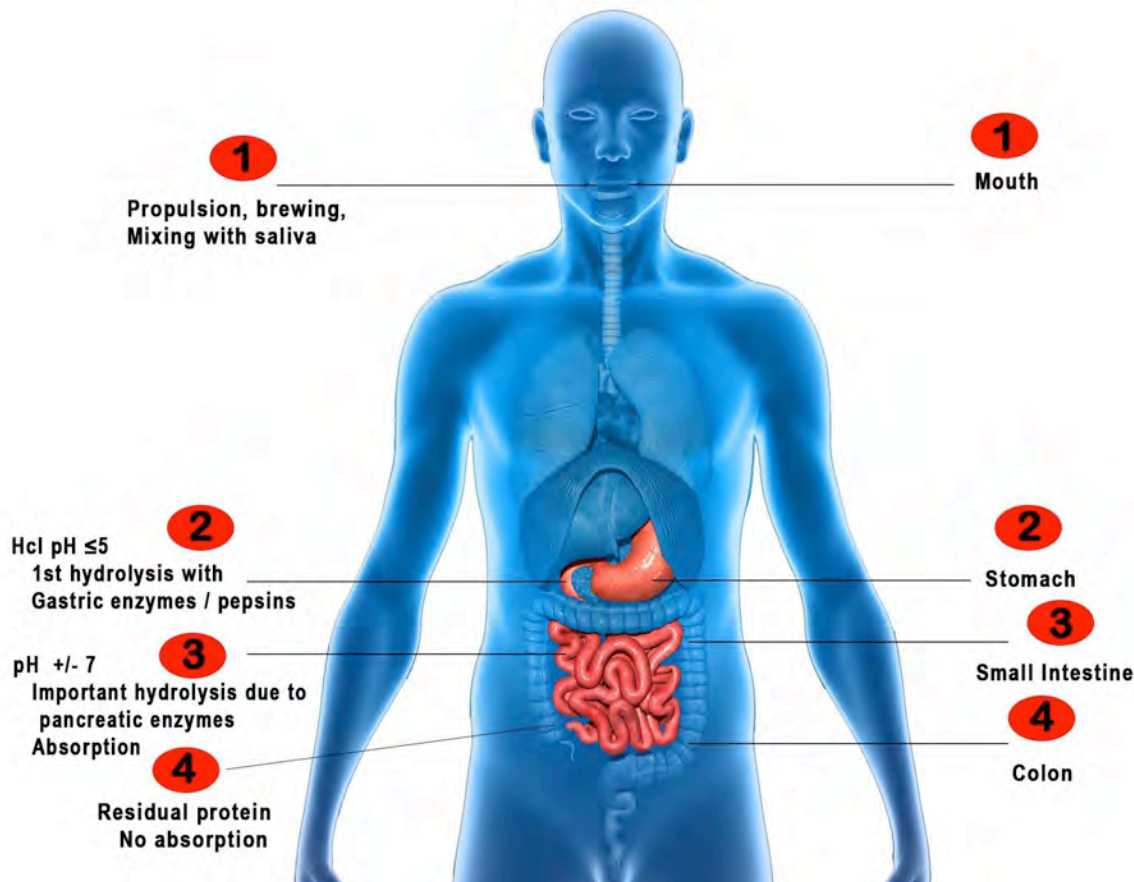
Is Taking Collagen Enough for Healthy Skin, Hair, Nails and Joints?

The short answer is “no”. Collagen alone will get you the same great benefits that the research has shown, but that’s just scratching the surface. To achieve your best health, you need more than collagen. You need an integrated systems approach that can break the barrier of oxidation and inflammation that keeps your body from its fullest potential.

Collagen vs. Collagen Peptides

Both collagen and collagen peptides are produced, as expected, from collagen-rich sources, mostly skin and bones from cattle and pigs, and sometimes from fish as well. These are parts of the animal that we evolved eating, but are almost completely absent from modern diets.

The main difference between intact, or “undenatured”, collagen and collagen peptides is their size. Collagen molecules - like the collagen in gelatin - are larger. Our collagen peptides are collagen molecules that have been broken down with enzymes, not heat, into smaller, water-soluble pieces. Collagen peptides are more “bioavailable” - meaning your body can work with them more easily - because of their simple structure [S. Siebrecht, et al 2018]. That’s why your body may have difficulty absorbing and using them or why you might get gut discomfort like pain or bloating with an undenatured collagen source.



20

Type to enter a caption.

Fast digestion, rapid absorption, and effective utilization of hydrolyzed peptides make it easier for your body to regenerate your connective tissue and health. I am one of the most selective people you will meet in your life, some would call me “a healthy pain in the b***”. And when it comes to formulating supplements, it pays off - you can trust my executive decisions.

“Collagen Builders” vs. Real Collagen

Let’s back this up a bit and talk a bit about alternative ways to enhance collagen. “Collagen builders” are supplements that mimic the protein and mineral profile of real collagen, but are made from amino acids (small proteins) from plant sources. Many claim to be as good or better than real collagen, however the science to back that up is suspiciously missing. Some studies show that isolated amino acids like proline, arginine, and others can help build collagen [Barbul 2008; Williams et al 2002], but how can we know which form is best when directly compared to each other?

In fact, the only evidence we have is a single study done with mice [Oesser et al 1999]. The researchers compared collagen hydrolysate (collagen broken down into small proteins, about 2-3 amino acids which contain proline and other amino acids) to proline alone (a single amino acid that makes up 23% of collagen). When mice were given either of these formulas, the collagen hydrolysate and the proline both ended up distributed throughout the body except for one place. Can you guess where?

The only place that the single amino acid proline did not get to and collagen hydrolysate did was in **cartilage**. Other studies show that collagen peptides are absorbed and transported to where they need to go as is - they are not broken down into individual amino acids [Kawaguchi et al. 2012]. The evidence suggests that collagen peptides are used better by mammals than individual amino acids.

We still can’t say for sure whether collagen builders can stack up to collagen hydrolysate, but there’s plenty of evidence to show that collagen can help with a variety of conditions. We’ll stick with what we know works until the research catches up.

Taking a Whole-Systems Approach

When you take your car into the shop to repair a flat tire, you can hope that the flat is all that needs to be fixed. Now what if you learned that your flat was caused by too much wear on a single tire? And then you learn that the one tire was worn out because of a misaligned part. And the part was misaligned because you drove your car too far without replacing the shocks that support the suspension. That’s a long line of issues!

Now, would you just replace the flat tire and keep on driving?

No! You would do best to fix the root problem, and address every problem downstream from it. Fortunately, fixing how you care for your body is less expensive than replacing a flat, fixing your alignment, and repairing your suspension!

How can you support your heart health to optimize your energy levels if your joints are stiff and your bones hurt? How can you fight inflammation and oxidation if your blood doesn't carry nutrients to the tissues that need them most?

A systems approach means that to address a problem, you have to look at the big picture. For your health, that means getting quality sleep, regularly exercising in a way that is meaningful to you, and filling your body with the right amounts of the right combinations of the right foods at the right times. Once you've got things running as smooth as they can, then you might start to see where your body overworks itself or underperforms in certain areas, and this is when supplementing can be most effective.

Our **Resync Collagen Blend** was formulated to sync different systems in your body and create the most positive impact possible on your energy and well-being. It has the potential to help every system from your bones to your joints and fascia, from your blood vessels to your brain, from your muscles to your immune system. Using Resync is a step towards an integrated systems approach.

Now that you have fundamental knowledge on how to take your health and aging into your own hands, let's go deeper into why Resync Collagen Blend does something no other product out there does.

What Makes Resync Blends Different?

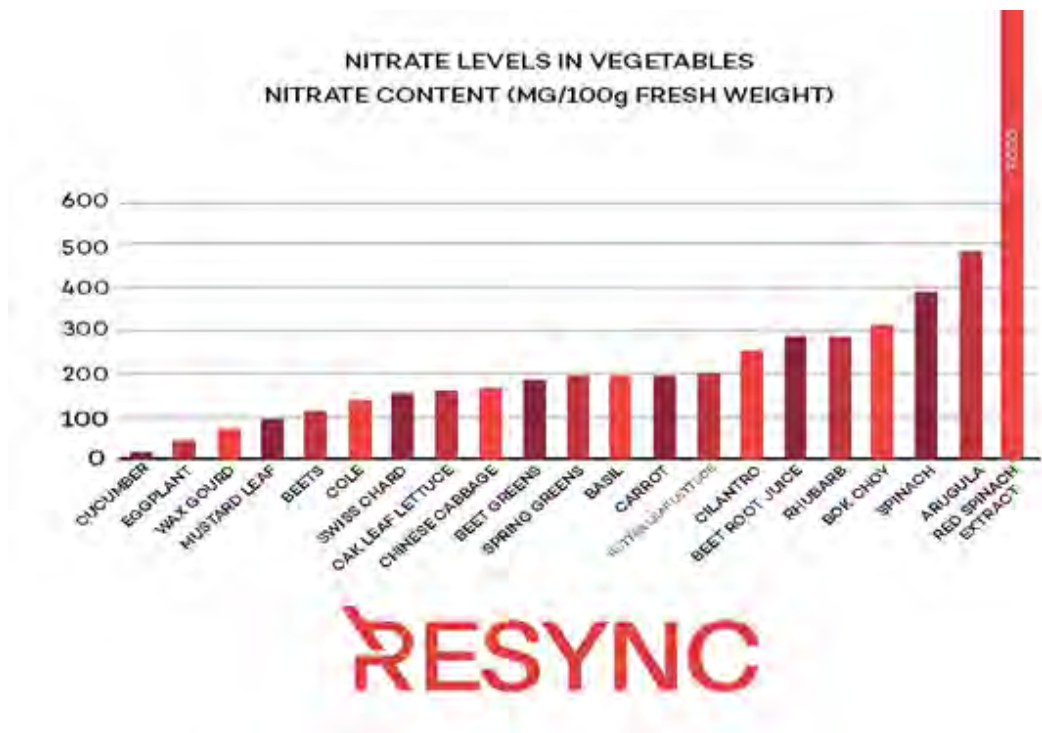
Two letters: N-O.

Not, "NO, we won't answer the question". We really want you to know what separates the Resync collagen blend from other collagen supplements!

NO stands for "Nitric Oxide", a tiny molecule you cannot live without that can come in high quantities from the red leaf spinach, beet root, and the aronia berry extract in **Resync Collagen Blend**.

The story of N-O as a disease-fighting chemical started in 1998, when the Nobel Prize in Medicine was awarded for the discovery of its positive role in cardiovascular health. Since then, research on nitric oxide has revealed some pretty powerful results. Now, research shows that N-O is important for:

- Lowering elevated blood pressure to a healthy range and keeping blood veins flexible through life
- Preserving heart health by feeding blood veins the molecule they rely on to keep you moving through the day
- Naturally stimulating the brain, nervous system and possibly even memory
- Signaling the body to mount an immune response against invading bacteria
- Optimal performance with deep clean energy and no crash
- Keeping collagen health in balance by increasing its access to nutrients



N-O is involved in so many different processes that it can be difficult to explain what it does simply. We'll leave it to the nitric oxide expert Dr. Andy Jones to summarize it: **"I mean, life would not exist without it"**.

Brain health, heart health, joint health, immunity, and energy levels: you can see that many of these functions are directly affected by aging. With our products, Resync wants to bring joy and ease to you, no matter your age or ability.

Our Resync Collagen Blend supports your body's N-O naturally. Nitric oxide precursors from red spinach and red beets and powerful antioxidant polyphenols from aronia berries complement the beneficial properties of collagen and hyaluronic acid to put your body at its best.

You already know oxygen is a very important molecule for your life, beauty and energy. So is nitric oxide.

Here are some top ways N-O can help your heart and energy levels:

- Nitric oxide can help keep your blood vessels open and your blood flowing. This is critical for adequate oxygenation of your body and optimal energy levels.
- It plays a role in getting the oxygen in your blood out of your veins and into the surrounding muscle and connective tissue, supporting performance and healthy circulation beyond the blood vessels.

- It helps regulate the powerplant of your cells, mitochondria, and influences energy production in muscles. As Andy Jones emphasized, “It's very important, therefore, for both the delivery of oxygen to muscle and the utilization of that oxygen within muscle“
- By itself, N-O is a powerful anti-inflammatory molecule. It inhibits immune cells from binding to an inflamed blood vessel wall, which is a key step in the early process of heart disease.
- It serves as an antioxidant by detoxifying a number of oxidants in the body.
- It acts as a neurotransmitter in the nervous system and plays a role in the active signaling of the brain and nerves.
- It plays a role in the regulation of glucose and calcium balance in your body.

Knowing this, how can you not care about this simple, yet powerful molecule?

The unfortunate news is that our capacity to make nitric oxide can be impaired by a number of factors. Genetics, the environment we might be exposed to, unhealthy choices, and aging can each lower N-O levels.

One of the most important factors for our N-O levels is what we eat. Leafy green vegetables and deep red plants are loaded with nitrates. After we eat them, nitrates are processed into N-O when your body needs the energy boost. The human body can make about 20-40 mg of nitrite per day on its own, yet to supply it with enough nitrate to work optimally we need to eat 300-400 mg of nitrates per day! This shows how important a role our diet plays in supporting nitric oxide levels. The standard American diet, low in vegetables and high in processed foods, does more to sap nitrate than to boost it. Why do so many Americans not have the sustained energy they want through the day? Low nitrate and nitric oxide levels might be a key to realizing your unfulfilled potential!

Product research at The Power Blood Lab shows that **high-fat meals can lower nitrate's ability to relax blood vessels**. Apparently, this is because nitric oxide precursors, are soluble in fat and take longer to digest.

What's more, even though organic farming practices are positively beneficial to the environment and good for our health in many ways, organic vegetables can have lower nitrate levels than conventionally-farmed vegetables [Gonzalez et al 2015].

What does that mean for you? If you enjoy a meal full of healthy fats and organic leafy greens, you might not be getting the most out of your healthy diet. If you don't have the “healthy diet” piece of the puzzle solved, then you have an even greater need to add more natural nitrates to reach your best self.

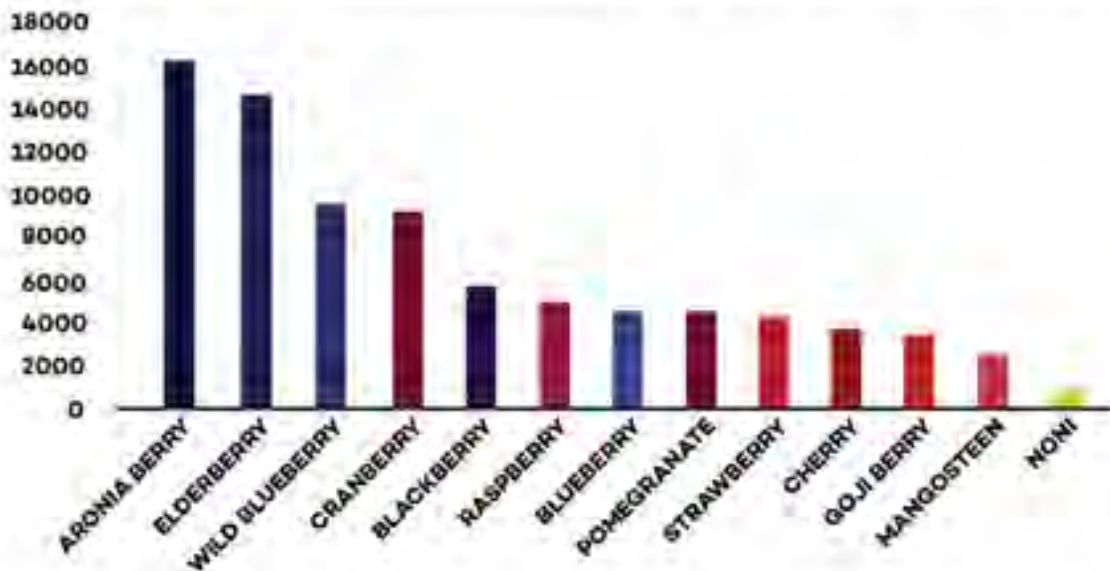
Besides the oxidation-regulating effects of nitrates, the other ingredients in Resync blends are carefully selected to maximize inflammation and oxidation fighting power.

Aronia Berry Aronia Melanocarpa



This platinum-status berry is enriched with high amounts of anthocyanins and flavonoids (anti-inflammatory plant molecules) AND provides a boost to N-O levels. Analytical chemistry research classifies it as a “super antioxidant”, it boosts vascular function, and is far and away superior when compared to other standardized fruit extracts.

Comparison of Antioxidant Capacity of Berries (ORAC)
(ORAC values from USDA Published Data & Nutrient Database. Values based on 100g of raw berries)

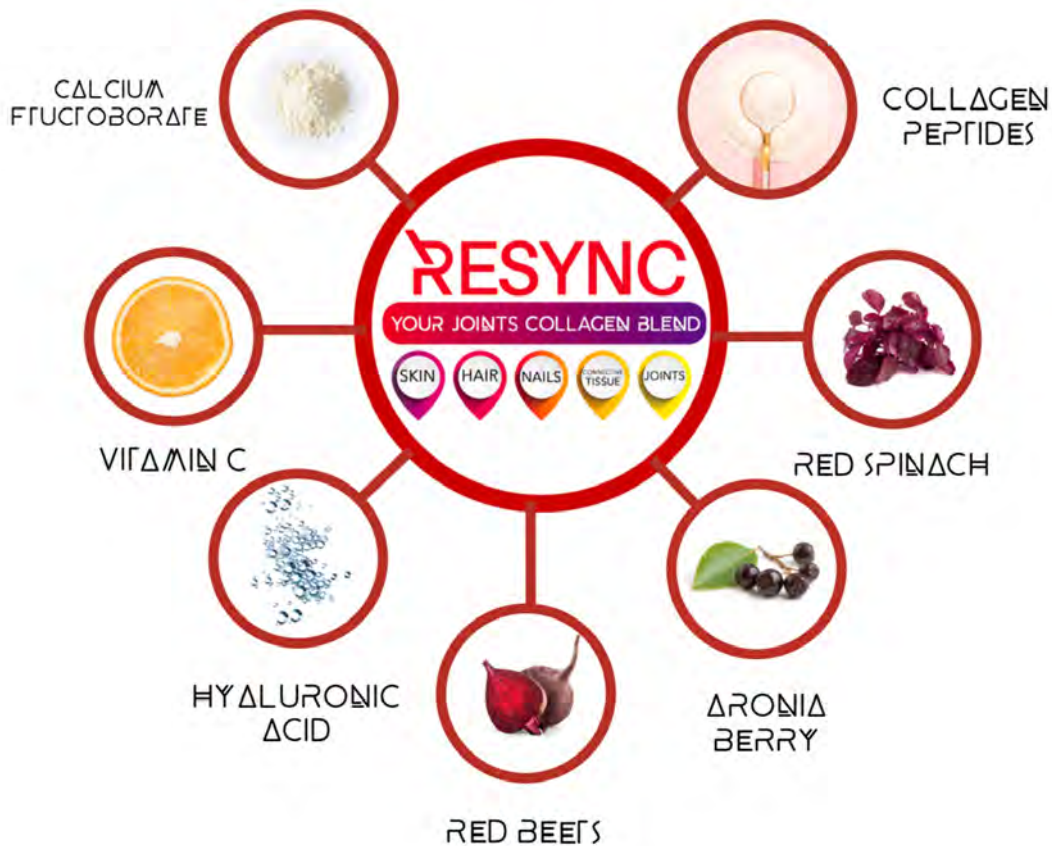


Source: USDA Database for the Oxygen Radical Absorbance Capacity (ORAC) of Selected Foods

Many research groups have shown that, independently, the natural aronia berry extract in Resync can have a powerful effect on your health. Aronia berry aids N-O synthesis and may potentially lower blood pressure, support smooth muscle (your gut), and increase energy and performance in endurance activities [Varela et al., 2016]. Other researchers [Alejandra García-Flores, Medina et al., 2016] have suggested that aronia berry juice might have positive effects on the nervous system during training. Other studies have shown a positive effects of polyphenol-rich dietary supplements in athletic performance [Myburgh et al., 2014]. Still more research [Rodriguez-Mateos and Heze et al., 2014] has shown that the same flavanols and inorganic nitrates in **Resync Your Joints** can improve blood vein function in healthy subjects.

Resync seeks to be a leader in the field. We're developing research to further clarify the positive influence that aronia berry polyphenols, natural nitrates, and hydrolyzed collagen peptides could have on your quality of life, athletic performance, and overall joint, skin, and nail health.

WITH 7 POWERFUL INGREDIENTS



Novel Ingredients In Resync's Collagen Blend Formulation

Resync product has been formulated with premium ingredients backed by scientific research and published in peer-reviewed journals. Here's what to know about the collagen peptides, nitric oxide precursors, and vitamins and minerals we use to hold up your health.

Collagen Peptides Used in Resync

Our source of collagen peptides, Peptan, is a clean protein, certified safe and allergen free, and easily and completely digested. As one of the macronutrients, protein can contribute to the body's energy supply. Hydrolyzed collagen peptides contain a high amount of the so-called "energy amino acids", proline and glycine, which can be converted to blood sugar and then stored as glycogen to supply energy for later. The process for this requires a lot of time, which is why collagen proteins can also be called a "long term energy source". Here's a breakdown of amino-acids used in Resync Collagen Blend that support your daily energy:

Amino-acids	Typical g AA/100g Protein
Alanine	8.1
Arginine	8.4
Aspartic acid	6.6
Glutamic acid	12.4
Glycine	20.6
Histidine	0.8
Hydroxylysine	1.2
Hydroxyproline	11.4
Isoleucine	1.5
Leucine	2.9
Lysine	3.4
Methionine	0.6
Phenylalanine	2.1
Proline	11.5
Serine	3.4
Threonine	1.9
Tyrosine	0.5
Valine	2.4

A nutritional supplement like Resync Collagen Blend with collagen peptides supplies the body with all of the necessary amino acids to increase your body's own collagen metabolism. With the exception of tryptophan, collagen peptides contain all the essential amino acids, but in any case your own collagen does not produce or need tryptophan. If you want to provide support for your connective tissue, joints and skin, a supplement like Resync Collagen Blend containing 15 grams of hydrolyzed collagen peptides per serving gives you all of the amino acids necessary for joint health in exactly the right amount that your own collagen demands.

Standardized Red Spinach Extract



Red spinach (*Amaranthus dubius*, also called “amaranth”) is a natural supplement new to the market. It contains extremely high levels of vitamin E and is high in iron and phytoecdysteroids. It has been shown to delay the ventilatory threshold, which means that you can exercise at a higher rate before your breathing increases. Red spinach extract may improve blood flow and increase the amount of oxygen to the brain in cell studies, which can have implications on lowering fatigue and stress. [Moore et al., 2017; Subramanian and Gupta, 2016].

The red spinach extract used in Resync Collagen Blend is one of the richest sources of natural nitrates on the market. It delivers 9000 mg/100 g, which is more than 5 times the amount of nitrate as beetroot powder and more than 50x times that of beet juice (Moore et al., 2017; Subramanian and Gupta, 2016).

It is 100% water soluble, contains no oxalates or sugar, is a unique source of potassium, and has a neutral pH. It is a perfect ingredient to support clean, deep energy.

Standardized Red Beet Root Powder



Red Beet (*Beta vulgaris*) is another source of natural nitrates. The betalain from beet roots has antioxidant and anti-inflammatory properties that may protect against signs and symptoms of exercise-induced connective tissue damage.

Natural dietary nitrate extract is the best way to take in nitrate because almost 100% of it is absorbed [Clifford, Howatson, West, & Stevenson, 2015], which maximizes the amount of nitric-oxide your body can produce. Among other functions, N-O relaxes and opens up blood vessels, which increases blood flow to muscles, the brain, and even connective tissues and lowers blood pressure.



Standardized Aronia Berry Extract

Aronia berry (*chokeberry*, *Aronia melanocarpa*) has been demonstrated to be one of nature's most powerful antioxidants [Jurikova et al., 2017]. It contains a huge amount of inflammation-fighting, natural plant chemicals called polyphenols like phenolic acids (neochlorogenic and chlorogenic acids) and flavonoids (anthocyanins, proanthocyanidins, flavanols and flavonols), particularly cyanidin-3-galactoside, cyanidin-3-arabinoside, and (-)-epicatechin units that are used in many other quality supplements to increase antioxidant levels. Those long names make a strong case against the saying "I won't eat it if I can't pronounce it", especially when you factor in how positive those natural chemicals are for your health!

Thanks to the high amount of these bioactive components, aronia berries have a wide range of positive effects, such as strong antioxidant activity and potential heart-healthy, cancer-fighting, and anti-inflammatory activities [Banjari et al., 2017; Jurikova et al., 2017].

We should emphasize that the fruit of this bush does not accumulate heavy metals, such as arsenic, tin, cadmium or lead [Wawer 2005], which is not always the case with other berry extracts.

Calcium Fructoborate



Calcium fructoborate is a natural sugar-borate ester found in fresh fruits and vegetables and so it is a natural source of calcium and soluble **boron**, a safe element linked to reducing symptoms osteoarthritis. At the cellular and molecular level, calcium fructoborate has been shown to be better than boric acid/borate in its ability to protect against an inflammatory response [Hussain et al., 2016; Marone et al., 2016; Mogosanu et al., 2016; Price et al., 2017]. It provides effective and safe support against joint discomfort and helps improve flexibility that decreases with joint problems.

Supplementing with calcium fructoborate is effective in reducing symptoms of an unhealthy physical stress response, the discomfort associated with connective tissue damage, and calcium-dependent bone loss. It may also be good for heart health.

Clinical studies have shown that calcium fructoborate may decrease markers of inflammation, mainly C-reactive protein [Hussain et al., 2016; Marone et al., 2016; Mogosanu et al., 2016;

Price et al., 2017]. Calcium fructoborate has GRAS status, meaning it is generally recognized as a safe ingredient.

Hyaluronic Acid



Hyaluronic acid (also called “hyaluronan”) is naturally present in the human body, especially in the eyes and fluid lubricant of the joints. It is a popular nutraceutical used not just for joint health, but also as an application on dermal tissues for wound healing, burns, and as a moisturizer [Bowman et al., 2018; Chen et al., 2018].

Generally, in joints hyaluronic acid acts as a cushion and as a lubricant [Altman et al., 2018; Bowman et al., 2018]. It also plays an interesting role in regulating biological processes and maintaining homeostasis (“balance”) in the body.

Significant research has shown its positive effect on skin and tissue regeneration, wound healing, and inflammation. Hyaluronic acid-based formulations (i.e., gels, creams, grafts, thin sheets, soaked gauze, gauze pads, tinctures, injections) have been shown to be remarkably effective in treating a range of inflammatory collagen-related diseases [Altman et al., 2018; Bowman et al., 2018; Chen et al., 2018]. It has been shown to be safe, tolerable, and effective in the treatment of various joint problems [Altman et al., 2018; Bowman et al., 2018; Papalia et al., 2017]. Overall, hyaluronic acid can be part of a promising therapy to support your connective tissue health.

Vitamin C



Vitamin C (chemical name: “ascorbic acid”) is a water-soluble vitamin, antioxidant, and essential cofactor for making collagen, carnitine and catecholamine metabolism, and dietary iron absorption. It is a key circulating antioxidant with anti-inflammatory and immune-supporting effects, and it serves a key function in detoxification [Ahmadinejad et al; 2017]. Older studies show increased organ function when vitamin C was administered in low, repletion doses (2-3g intravenous vitamin C/day) in people deficient in vitamin C. Recent studies using much higher doses (6-16g/day) suggest that vitamin C reduces vasopressor support and organ dysfunction, and may even support longevity [Ahmadinejad et al; 2017; Spoelstra-de Man AME et al., 2018].

We humans are unable to make our own vitamin C, so we must eat it in fruits and vegetables. Citrus fruits, berries, tomatoes, and green leafy vegetables are excellent sources of vitamin C. To turn proline into hydroxyproline for collagen biosynthesis requires vitamin C, making it a necessary factor for resilient, mature collagen [Ahmadinejad et al; 2017; Spoelstra-de Man AME et al., 2018]. An unstable collagen structure decreases the health of your skin, the lining of your GI tract, blood vessels, and bone.

This state-of-the-art Resync Collagen Blend – Resync Your Joints formulation contains clinically proven ingredients to:

- Promote Connective Tissue, Nails, Skin and Hair Health
- Improve Collagen Synthesis

- Promote Healthy Blood Flow & Energy
- Support Nitric Oxide Levels
- Improve Metabolic Function

Use This Checklist For Best Results And Become The Best Judge Of Collagen Quality.

Here are some essential questions to ask yourself to save \$\$\$ and to void buying cheap collagen products.

Q1 “Does the supplement I’m buying actually do what I need it to? Is the collagen provided the kind that I need? Remember the collagen types we discussed on page #7? Why do you care about collagen type V or X when you do not have enough of type I & III in your body?”

And...

Q2 What is the dose per serving? Am I taking enough per serving to actually support collagen synthesis in my body? There are so many fillers in some products out there that you might have to take it 10 times per day to see any benefit!

And if that’s not enough to pay attention to, there’s more you should keep in mind. For example:

Q3 What other ingredients synergize with your supplement to maximize its effect? One to keep in mind is the antioxidant vitamin C, which plays a crucial role in collagen formation. One of the most important stabilizing components of collagen protein is the amino acid, hydroxyproline. If there isn’t enough vitamin C available in your body, proline cannot be used properly and your collagen starts to fall apart.

So, going back to what else you need to pay attention to as a smart consumer: check if your collagen product delivers the daily recommended dose of vitamin C. Other antioxidants are a big plus!

Q4 Are there studies to back up the health claims on the bottle? It’s always a bonus (in my professional opinion: a must) that the source of collagen you use has had clinical studies that demonstrate that it may be helpful at your age, your physical activity level, and in line with your purpose of using the product. We know 99% of them do not. The collagen used in Resync was proven to support recovery from athletic performance in typical adults [Clifford et al. 2019].

Q5 Regardless of which main source of collagen (type I, II or III) you decide to consume, the most important consideration is: Is it tested and certified by an independent, 3rd-party testing lab? If not, how do you know that what is on the label, is actually inside the product?

Just because a product was formulated by a doctor or endorsed by a celebrity, it doesn’t mean that the product is clean, safe, effective, independently tested for quality, or certified. The responsibility is on you to check for all these markers of quality.

That is why Resync products are taken by elite athletes in the US - these performers not only see and feel the differences in their performance and recovery, but they know through experience that the quality of our products can be trusted.

Third-party testing labs are independent companies that make sure the ingredients on a product label are actually present in the same amounts in the products themselves. They make sure that contaminants are lower than federally mandated levels. Some supplement manufacturers try to get away with cutting their product with unlabelled fillers, so look for a quality seal certification like NSF International or GRAS (“Generally Recognized as Safe”).



Other 3rd-party testing labs make sure that a supplement is FREE of banned substances that would put your health and performance in jeopardy. These companies are critical for maintaining transparency, and you should be rightfully suspicious of any company that isn't certified.

Resync products are certified by two of the most respected independent product testing organizations, NSF International and the Banned Substances Control Group (BSCG). When you see the “NSF Certified for Sport” quality seal (a certification level higher than the basic NSF certification) or the BSCG stamp of approval, you know that the product went through a detailed banned substances testing. Look for “NSF Certified for Sport” or “ so you can focus on your health and vitality, instead of worrying if the product is a quality one or not. When you see the “NSF Certified for Sport” and “BSCG Certified Drug Free” logos, you know that the collagen was tested to the highest safety on top of the basic (and what you should consider the minimum) 3rd-party testing. This is what Resync stands for - pure quality!



To summarize what to pay attention to when choosing your collagen peptides supplements:

1. Is the finished product certified by a 3rd party testing company? Does the collagen have GRAS (“generally recognized as safe”) status?
2. What collagen type am I interested in and does this product have the type I need?

3. What is the dose per serving?
4. Does it have 100% of the daily value of vitamin C (90 mg)? Does it have any other antioxidants?
5. Does this collagen have any clinical studies to back its health claims up?

Where Do We Go From Here?

You know by now that proteins are a major component of the human body providing structure and function to your heart, brain, skin, bones, or even enzymes that are essential for your metabolism.

I guess the question you need to ask yourself is, can you see yourself using collagen with the right antioxidants and additional valuable ingredients that are great not just for your heart and energy, but also for your inside - out beauty as well?

Resync's mission is to help people live healthier lives. I wanted to create products that you and your family can use safely to feel and see the difference within. Collagen with antioxidants and natural nitric oxide precursors can serve your entire family so you can spread the beauty and energy around the people you care about.

Resync Collagen Blend – Resync Your Joints was creatively designed using a synergistic combination of clinically studied hydrolyzed collagen peptides, mixed with premium natural nitrates and antioxidants to nourish and rejuvenate connective tissue, to support optimal blood circulation, and to allow you to create your own sustained, clean, deep energy. †

Barbara Depta

Please note these statements have not been evaluated by the food and drug administration. This product is not intending to diagnose, treat, cure, or prevent any disease.

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