



### I. Introduction

## II. Sleep, Stress, and Female Hormones

- A. Nutritional and Lifestyle Tips for Better Sleep, Managing Stress, and Hormone Health
- B. Key Women's Health Nutrients for Sleep & Occasional Anxiousness
- C. Supplements for Sleep & Occasional Anxiousness\*
- D. Key Women's Health Nutrients for Detox And Hormone Regulation
- E. Supplements for Detox and Hormonal Balance\*

## III. GI, Brain, and Neurological Health

- A. Nutritional and Lifestyle Tips for Improved Gut Health
- B. Key Women's Health Nutrients for Gut-Brain Health
- C. Supplements for GI Health

## IV. Weight Management and Skin & Hair Health

- A. Nutritional and Lifestyle Tips for Better Weight Management
- B. Key Women's Health Nutrients for Weight Management
- C. Supplements for Weight Management\*
- D. Nutritional and Lifestyle Tips for Lustrous Hair, Skin, and Nails
- E. Key Women's Health Nutrients for Healthy Skin, Hair, and Nails
- F. Supplements for Skin, Hair, & Nails\*

## V. Fertility and Egg Health

- A. Nutritional and Lifestyle Tips for Fertility and Egg Health
- B. Key Women's Health Nutrients for Fertility and Egg Health

## VI. Graceful Aging: Heart, Bone, and Cognitive Health

- A. Nutritional and Lifestyle Tips for Graceful Aging, Bone, Heart, and Cognitive Health
- B. Key Women's Health Nutrients for Graceful Aging, Bone, Heart, and Cognitive Health
- C. Supplements for Graceful Aging, Bone, Heart, and Cognitive Health



INTRODUCTION TO WOMEN'S NUTRITIONAL HEALTH

Nutrition impacts women's health concerns in all stages of life.

Due to the complexity of the female hormonal systems, women's health challenges cascade more easily, impacting multiple downstream pathways. This is not to say that men do not have cascading health concerns, but the overarching balance may be more easily interrupted in women.

Weight loss is a top concern among women of all ages; stress and poor sleep quality are pervasive as well. Hormone regulation is another top health concern that affects women in various age groups, often for different reasons.



Nutrition, regular exercise, and adequate sleep are the three pillars of overall health. Although varying factors can contribute to overall well-being, diet, movement, and rest are the most significant influencers on otherwise healthy women. The good news is that, for the most part, simple lifestyle choices that can be adjusted and improved with a little bit of conscious effort can have a meaningful impact on most women's overall health. Quality nutritional supplements can fill any dietary gaps.

In this guide, we will cover some of the most pressing topics related to women's health. In an effort to keep this women's nutrition and supplement guide comprehensive, yet not overlong, we organized the health areas into groups that either cascade or have a multidirectional impact on each other.

## SLEEP, STRESS & ANXIOUSNESS, AND FEMALE HORMONAL HEALTH

Some women sleep anywhere, anytime, while many others struggle to create the "perfect" conditions for a good night's rest. As a culture, North Americans tend to not place enough importance on getting quality sleep regularly.



Researchers now understand that sleep doesn't only affect our energy levels and mood but directly impacts the endocrine hormone cascade, as the relationship between sleep and stress is bi-directional. Cortisol is known as the stress hormone. The adrenal glands release cortisol in response to stressful events. Over time, elevated cortisol levels can contribute to difficulty sleeping and eventually adrenal fatigue. Cortisol has a direct relationship with insulin, which can impact thyroid health, the immune system, weight management, and cardiovascular health.

But it doesn't stop there.

Stress and anxiousness directly impact GI health and the gut microbiome. The gut acts as a neuro-signaler for the inflammatory response and the immune system—local and systemic. On top of this, poor gut health impacts digestion and nutrient absorption, stemming from sleep and stress.

Due to the delicate endocrine balance in women, it's also important to consider other hormonal factors. Estrogen imbalances caused by exposure to xenoestrogens in standard household products and the foods we eat can also wreak havoc on the female hormone cascade and, in turn, induce sleep and stress challenges.





## NUTRITIONAL AND LIFESTYLE TIPS FOR BETTER SLEEP, STRESS MANAGEMENT, AND HORMONE HEALTH:

"Sleep is an amazing biological imperative. It's a time when everything in the human body resets. Everything in our physiology calms down. The heart rate slows, blood pressure lowers, and tissue repairs. It's also the time for us to process the events and emotions we experienced throughout the day. Sleep allows us to heal and reset, not just physically and mentally, but emotionally as well."

Dr. Stephanie O'Neill, DC, DICCP

- Try to create better sleep hygiene by ensuring your bedroom is dark, quiet, and cool.
- Create a habit of going to bed at the same time every day—even on weekends.
- Avoid screen time at least a full hour or two before your scheduled bedtime—blue-light simulates sunshine and interferes with the release of the sleep-regulating hormone melatonin.
- Exercise regularly with activities you enjoy to reduce stress. Even walking or gardening can be extremely beneficial.



- Try mindfulness and meditation to calm the mind and body.
- Instead of midday coffee, try green tea. The active ingredient in green tea, L-theanine, provides relaxed alertness. It aids in GABA production, a brain-calming chemical.\*
- Pay attention to the household products you purchase. Many contain xenoestrogens and contribute to estrogen dominance: plastic bottles, canned foods, pesticides, and cleaning products.
- Purchase a good filter for your drinking and bathing water, as the USGA found 85 human-made chemicals in tap water across multiple states.





## KEY WOMEN'S HEALTH NUTRIENTS FOR SLEEP AND OCCASIONAL ANXIOUSNESS

Along with addressing any underlying mental, emotional, and environmental causes of sleep disturbances, consider supplementing with certain dietary nutrients that can help promote calm, better sleep, and detox unwanted exogenous compounds from the body.\*

B Vitamins, specifically folate and B12, play an essential role in women's metabolism and overall health.\* B Vitamins support cellular processes to help manage stress, promote energy, and boost mood.\* A lack of Vitamin B can contribute to feelings of weakness, fatigue, digestive issues, muscle weakness, vision changes, and shortness of breath.\*

## **Ashwagandha**

Ashwagandha is a powerful herb used for thousands of years in the Indian system of Ayurveda. Ashwagandha is a nerve tonic and adaptogen.\* This powerful plant helps the body adapt to life stressors and maintain a sense of calm.\*

## Asparagus officinalis

ETAS is a standardized extract of Asparagus officinalis, used throughout history for its many healing properties. Most notably, this extract supports stress management, high-quality sleep, and cognitive function.\*

### Rhodiola rosea Extract

Rhodiola is another adaptogenic herb known to improve sleep patterns, support mental resilience, and boost brain function.\* Helping your body adapt to occasional stress, Rhodiola contains over 140 active ingredients responsible for its myriad of health-promoting effects.\*



## **Magnolia Bark Extract**

As an adaptogen, magnolia bark has been used to promote sleep and manage stress and anxiousness for centuries.\* In our fast-paced, modern-day society, balancing the many demands of being a working mother and trying to "do it all" is especially tough, and this herb can help women calm mental chatter and relax.\*

## L-Theanine

L-theanine is an amino acid that promotes relaxation and supports sleep via several mechanisms.\* First, this amino acid boosts levels of GABA and other soothing neurotransmitters like dopamine and serotonin.\* It also works to balance excitatory brain chemicals that are linked to occasional stress and anxiousness.\*

## Melatonin

The pineal gland produces melatonin following the natural contrast between bright, daily sun exposure and darkness at night—circadian rhythm. Exposing the body to morning daylight and being outdoors during the day, paired with sleeping in total darkness, can naturally promote healthy melatonin levels and sleep.\*

### **GABA**

Impressive research about GABA continues to unfold, specifically investigating how the gut microbiome affects sleep, mood, and cognition through neurotransmitters.\* Studies show that gut cells produce most of the neurotransmitter serotonin, which is primarily responsible for feelings of happiness.

## Magnesium

A critical mineral for optimal body function, magnesium is needed as a cofactor to support hundreds of biochemical processes, including cellular energy or ATP production.\*



## SUPPLEMENT FORMULAS FOR SLEEP AND OCCASIONAL ANXIOUSNESS\*

## SLEEP BENEFITS™

This formula provides nutrient and botanical support for optimal sleep and healthy circadian rhythms.\* Sleep Benefits™ boasts clinically relevant levels of melatonin and direct support for the neurotransmitters associated with tranquility and relaxation.\* Bluenesse® is a branded form of lemon balm, which has traditionally been used to not only support a healthy stress response, but also to promote healthy sleep habits.\* In order to truly support long term balance of the sleep cycle, it is essential to support the circadian rhythm, which is accomplished effortlessly by the evidence-based Sensoril® Ashwagandha included in this formula.\*

## **LEARN MORE**

## **TRI-MAG 300**

Tri-Mag 300 is a dietary supplement providing 3 important chelated forms of magnesium for enhanced absorption.

Magnesium is necessary for the metabolism of carbohydrates, amino acids and fats; also for energy production, and the utilization of calcium, phosphorus, sodium and potassium which are important electrolytes



# LIPOSOMAL MELATONIN + CBD (30)

Sleep helps us think clearly, deal with stressful situations, and supports healthy immunity. Yet, for many people, getting sufficient sleep is a frustrating challenge.

## **LEARN MORE**

## L-THEANINE (50)

Liposomal L-Theanine is recommended for promoting calm and relaxation, supporting mental focus and alertness, balancing neurotransmitters involved in relaxed behavior and reducing irritability\*



## KEY WOMEN'S HEALTH NUTRIENTS FOR DETOX AND HORMONE REGULATION

## Diindolylmethane (DIM)

Research shows that DIM modulates estrogen metabolism and may work as a dietary supplement to support thyroid health.\* Balanced estrogen metabolism may also help to lower 16-hydroxy estrogen metabolite production—the bad form—and move it toward 2-hydroxy instead, assisting with estrogen dominance.\*

## Indole-3-Carbinol

I3C is an estrogen receptor antagonist that may also play a role in apoptosis.\* I3C has been shown to be a mammary inflammatory modulator in animals. \* Cruciferous vegetables such as brussels sprouts, kale, broccoli, cabbage and cauliflower contain glucosinolates that the body breaks down into this potent phytochemical.





## SUPPLEMENT FORMULAS FOR HORMONE BALANCE AND DETOX\*

## ANDRO BENEFITS™

Andro Benefits™ is a nutritional supplement designed to support hormone balance in women and men.

## **LEARN MORE**

## **BIO DIM®**

Bio DIM® I-3-C Complex is a blend of DIM® combined with Vitamin D3, Vitamin E, Calcium D-Glucarate, Indole-3-Carbinol, Green Tea Extract, HMRlignan™, and Trans-Resveratrol. Bio DIM® I-3-C Complex is a state of the art formula that supports hormone balance and cellular health in both men and women.\*

## **LEARN MORE**

## DETOX BENEFITSTM\*

Detox Benefits<sup>™</sup> combines various minerals, herbs, antioxidants, glutathione precursors, amino acids, DMG and 3 patented ingredients known to support bioavailability and liver health.\* Detox Benefits<sup>™</sup> is recommended for people searching for support for normal toxin cleansing.\*



## GI, BRAIN, AND NEUROLOGICAL HEALTH (GUT-BRAIN CONNECTION)

Believe it or not, stress is one of the most significant offenders contributing to poor gut health. For many, the root of digestive tract issues begins with elevated stress levels and poor sleep. But even when upstream concerns like sleep and stress are addressed, balancing your gut microbiome, no matter the root of the problem, can take some time.

Scientists have recently identified that our gut, particularly the GI microbiome, is a neuro-signaller. Did you know that the stomach houses over 500 million neurons and produces even more neurotransmitters than the brain? It plays such a critical role in signaling the body's immune response that it's often referred to as the second brain. The immune system, brain, and gut are so intrinsically connected that healthcare practitioners often refer to them as the gut-immune-brain triad.





When our gut health is out of balance, the neurochemicals produced by proper levels of healthy GI bacteria and neurotransmitters that help the brain regulate sleep patterns, fear, anxiousness, memory, and focus are affected. So, not only does your gut health directly impact immune response, the efficiency of your immune system, and lymphatic tissue associated with the gut—which embodies a localized yet significant portion of our immune system—it also affects your overall sense of wellbeing.

Because your GI health impacts so much of your overall health, it's best to visit your preferred functional medicine specialist to ensure you correctly identify the source of your GI challenges. Issues such as excess bacteria, leaky gut, and other permeability challenges can result in toxins entering the bloodstream that should have been eliminated by passing through the digestive tract.

## NUTRITIONAL AND LIFESTYLE TIPS FOR IMPROVED GUT HEALTH

"If your gut isn't healthy, your brain isn't healthy."

Dr. Fred Pescatore, MD, author of Boost Your Health with Bacteria, and one of the foremost leading experts in the field of integrative health and healing.



It's important to note that the nutrients necessary to achieve homeostasis are unavailable when the body is put in a state of environmental stress or unhealthy dietary changes. Since our gut microbiota is entirely dependent on the breakdown of chemicals we obtain from our food, it's no surprise that altering your diet can significantly impact the promotion of individual organisms over others.

- Talk to your functional medicine practitioner about a probiotic regimen.
- Eat a well-balanced diet rich in prebiotic fibers—this gives your microbiome the fuel it needs to thrive.\*
- Intermittent fasting (non-calorie restrictive) can give your digestive system a break from continually consuming food that needs to be broken down.
- Avoid excessive alcohol consumption.
- Regular, adequate sleep will help the neurons in your brain recharge, giving you more energy and an improved mood, ultimately helping to regulate stress levels that may adversely impact your gut health.



- When dealing with harmful bacteria, pay special attention to rebuilding your microflora with prebiotics and probiotics.\*
- Avoid stomach acid suppression. It inhibits natural digestive processes.
- Avoid processed foods with additives. Instead, stick to whole, alkaline-rich foods. The Mediterranean diet is a good example of foods conducive to good gut health.

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## KEY WOMEN'S HEALTH NUTRIENTS FOR GUT-BRAIN HEALTH

### **Multi-Strain Probiotics**

The most studied probiotics for overall gut health are Bifidobacterium longum, Bifidobacterium breve, Bifidobacterium infantis, Lactobacillus helveticus, and Lactobacillus rhamnosus.\* However, women should also include Lactobacillus acidophilus, as it's the most highly researched strain for establishing a healthy vaginal balance.\*

### Zinc L-Carnosine

Zinc is a mineral that has been used for its immune properties for centuries.\* When chelated with the amino acid L-carnosine, it allows for a slow dissociation and improved local effect.\* This potent combination has been found to help stabilize small bowel integrity, promote a healthy stomach lining and gastrointestinal environment, support the health of gastric cells, and even help alleviate gastric discomfort. \*

## L-Glutamine

L-Glutamine is an amino acid and protein building block necessary for blood-sugar regulation.\* It is also a fuel source for cells in the small intestine, allowing them to support a healthy inflammatory response. \*

## Deglycyrrhizinated licorice (DGL)

DGL and supplements like marshmallow root, slippery elm, and aloe vera provide high mucilage content and may assist in soothing mucous membranes. \*





## SUPPLEMENT FORMULAS FOR GUT-BRAIN HEALTH

## MEGA PROBIOTIC™ FOR HER

The probiotic combinations found in Mega Probiotic™ For Her have proven to strike the ideal balance between beneficial bacteria and Candida albicans, more commonly referred to as yeast.\* Studies with these strains consistently show a clinically significant reduction in yeast and coliforms in the probiotic group as compared to placebo.\*

## **LEARN MORE**

## **GIBENEFITS®**

GI Benefits is the most advanced formula on the market today for optimal gastro intestinal health.\* It has been designed to support gut health, soothe the digestive tract lining, promote regularity, microbial balance and support proper immune function

## **LEARN MORE**

## BRAIN BENEFITS™ (40)

Improve Your Brain Function with Brain Benefits<sup>TM\*</sup> Omega-3 fatty acids are super concentrated in the brain- our fattiest organ. They can do wonders for cognitive function, especially memory, focus, and mood.\* DHA and EPA help the brain learn new things, with less effort.\* They may even change the brain's structure, making space for more brain cells.\* Omega-3s protect the brain from wear and tear.\* That means you think more clearly and quickly, no matter your age.



## WEIGHT MANAGEMENT AND HEALTHY SKIN, HAIR, AND NAILS

Everything is connected. How we feel may reflect how we look. Lustrous skin and hair is often a sign of good gut health. A healthy weight usually indicates a well-functioning metabolism, moderately healthy lifestyle, and minimal upstream health challenges.

With people working from home at record rates, we are stuck inside more often than before, and many women are concerned about their weight and fitness levels. Much like your overall health, you should approach weight management holistically. The main staple of proper weight management is a balanced diet that works for you—remember, no two people are exactly alike—and plenty of exercise.

As a society, we need to get past the idea of a 'diet.' The word diet does not actually refer to something that helps you lose weight. Rather, 'diet' describes the kinds of food that a person, animal, or community habitually eats. The idea of 'diet' as a verb that promotes restricting our eating habits is relatively new. It also implies something temporary, which is why almost all 'diets' fail. So, instead of thinking of a diet as a temporary method to help you fit into a dress, for example, think of it as a permanent lifestyle change. This shift in philosophy will support better weight management outcomes. For many women, simply adjusting the foods you eat and moving more often will allow you to reach and maintain reasonable goals.



However, it should be noted that certain underlying factors may impact one's ability to lose weight and keep it off—no matter how good their diet and lifestyle choices are. Estrogen dominance, thyroid issues, poor immune response, occasional stress, sadness, reproductive troubles, and pituitary concerns are a few that must be addressed with the help of your preferred functional medicine doctor.

For otherwise healthy women, special attention should be paid to the metabolism, specifically endocrine support and nutrient compounds that allow for enhanced liver detox. Adipose tissue is now recognized as a metabolically dynamic endocrine organ, and fatty tissues produce adipokines and hormones that impact the metabolism. Improved liver detoxification can help the body remove unwanted exogenous toxins that may curb weight loss.





## NUTRITIONAL AND LIFESTYLE TIPS FOR BETTER WEIGHT MANAGEMENT:

"Weight loss is much more than just diet and exercise, and you owe it to yourself to explore options to keep yourself healthy."

Dr. Serena Goldstein, ND

- Stay well-hydrated. Among the many health benefits of hydration, it helps you avoid mistaking thirst for hunger, as the signals reach the same place in the brain.
- Eat plenty of vegetables. Along with fiber that keeps you satiated and less likely to overeat, dark leafy greens and cruciferous vegetables also provide vitamins and minerals that promote a healthy hormonal balance essential for weight loss.\*
- Go to bed before 11 PM. Thyroid, estrogen, progesterone, testosterone, and insulin are all hormones that profoundly impact metabolism and other processes related to weight management. They are produced at night.



- Avoid processed foods. Aim for locally sourced, seasonal whole foods whenever possible.
- Avoid excess sugar.
- Relax and get into the zone. Stress has a significant impact on the body's ability to lose weight. So, find ways to create peace and calm to put your body into a parasympathetic state—a peaceful walk, meditation, gardening, creating art, etc.
- Exercise and movement. It's especially important to find a form of exercise you enjoy.

## KEY WOMEN'S HEALTH NUTRIENTS FOR WEIGHT MANAGEMENT

## **CLA (Conjugated Linoleic Acid)**

CLA (Conjugated Linoleic Acid) is a natural fatty acid found in meat and animal products, and some research shows promising effects on its ability to increase calories burned at rest, stimulate fat loss, and decrease sugar cravings.\*

## **Dichrostachys glomerata Fruit Extract**

This polyphenol bioactive supports enhanced insulin response, which promotes balanced blood sugar levels and works to scavenge free radicals.\*





## **African Mango Seed Extract**

Irvingia gabonensis (African mango seed extract) is a traditional food with health-giving properties that is eaten in Western Africa. The active ingredients in African mango appear to be ellagic acids—mono, di, tri—and other long-chain glucosides. African mango supports body weight and waist circumference, blood lipids, and adiponectin, and it can also lower C-reactive protein. \*

### **Green Coffee Bean Extract**

Green coffee bean's (GCB) principal phenolic constituent is chlorogenic acid, which encourages thermogenic activity and has been suggested as a weight loss aid.\* According to some research, GCB increased glutathione, supported tissue health, decreased fat mass and fat absorption, and stimulated fat metabolism in the liver. \*

## **Green Tea Phytosome**

Green tea has thermogenic, free-radical fighting, and lipolytic properties and has been shown to inhibit fat cell synthesis and growth, decrease fat cell size, inhibit fat accumulation in cells, and promote the break-down of fats by beta-oxidation.\*

## **Caffeine**

A little bit of caffeine from coffee and green tea can increase metabolism.\* So, enjoying a cup of these beverages can be an excellent way to support other weight loss efforts.\* Just remember: moderation is key.

### **Brown Seaweed**

Laminaria japonica is a brown seaweed that serves as a popular dietary marine vegetable in Korea, where it is also used in maternal health and weight loss formulas.\* Animal studies suggest that Laminaria may have potential as a weight loss aid.\* Seaweeds are also nutritious: they are rich in vitamins, minerals, fiber, polyunsaturated fatty acids, polyphenols, and iodine.



## SUPPLEMENT FORMULAS FOR WEIGHT MANAGEMENT\*

## **SCALE DOWN® (30)**

Scale Down is a dietary supplement that is recommended for weight management, satiety support, cardiometabolic support and free-radical fighting support.\* This formula is available as a great tasting, sweet mint liquid delivered in a convenient pump format for easy adjustment to the serving size setting the stage for increased compliance and better clinical outcomes.\*

## **LEARN MORE**

## **MANGO-PLEX (60)**

Mango-Plex with Raspberry Ketone is a vegetarian, dietary supplement that supports weight management.\* Mango-Plex with Raspberry Ketone combines 4 scientifically tested & clinically proven ingredients (Mango Seed Extract, Raspberry Ketone, Green Coffee Bean Extract and Green Tea Extract) that work synergistically to help break through weight loss barriers.\*



## NUTRITIONAL AND LIFESTYLE TIPS FOR LUSTROUS HAIR, SKIN, AND NAILS:

"Collagen obtained from foods can sometimes be more bioavailable than supplements, and excellent sources include bone broth, chicken, fish, egg whites, citrus fruits, berries, garlic, and cashews. A diet high in refined sugar might damage collagen over time, and foods rich in collagen-boosting nutrients such as zinc, copper, and vitamin C are also important."

Dr. Ian Bier, ND, PhD, LAc, FABNO

Everyone wants full, shiny hair, smooth, supple skin, and strong nails. Unfortunately, factors like cold, dry winter weather, aging, and sun exposure can make this more difficult. However, along with some basic lifestyle choices like adequate sleep and hydration, you can prioritize a few specific nutrients that support stronger hair, nails, and healthy skin.\*

- Stay hydrated. The integumentary system (skin) is the largest organ in the body, and it needs plenty of water to function at optimal levels.
- Get plenty of sleep. When you get a lousy night of sleep, you immediately see the effects when you look in the mirror. During sleep, your skin cells repair and build fresh new cells.



- Relax and reduce stress. Researchers have proven that stress can cause grey hair and hair loss.
- Eat plenty of green leafy vegetables and yellow/orange fruits and vegetables. They tend to be high in beta-carotene, which the body converts to vitamin A.
- Limit the use of hairdryers, heat-rollers, etc., as they dry out and can affect hair over time.
- Use sunscreen to protect your skin from UV rays. If you use makeup, remember to use a foundation or base with SPF. If you are of fairer skin, you'll need to use at least SPF 30 for maximum protection.

## KEY WOMEN'S HEALTH NUTRIENTS FOR HAIR, SKIN, AND NAILS

## Collagen

Collagen is the most widespread protein in the human body. It is a framework for skin, cartilage, tendons, bones, blood vessels, joints, gut lining, muscles, and eyes. The body synthesizes collagen, but we get most of this vital protein through our diet. If you have enough collagen in your diet for basic bodily maintenance, you won't see immediate 'wow' results with supplementation. However, over time, collagen supplementation with biotin can help direct the extra protein intake and take your body beyond basic maintenance mode toward improved skin elasticity and stronger hair and nails.\*



## **Biotin**

Biotin is a member of the B vitamin family (B7), as well as an enzyme cofactor for collagen that helps the body properly utilize the collagen it produces.\* Biotin seems to improve the infrastructure of keratin, a protein that makes up skin, nails, and hair.\*

### **B Vitamins**

Although Biotin is most commonly associated with hair growth and maintenance, B1, B2, B5, B6, B9, and B12 are also cofactors and coenzymes for energy release from the foods we eat, and may thereby impact the overall health of our skin, hair, and nails. \*

## Vitamin A

Vitamin A is a core epithelial building block for surface tissue maintenance that also helps support collagen as a cofactor.\* Although we consider it a singular nutrient, it's really a group of fat-soluble compounds: etinoid, retinol, retinal, and retinyl, which you'll find in many beauty products due to its positive impact on skin health.\*

## Methylsulfonylmethane (MSM

MSM is a rich sulfur source that strengthens hair and increases blood supply to the scalp, encouraging a full, healthy mane.\*

## **Hyaluronic acid (HA)**

Hyaluronic acid (HA) moisturizes the skin.\* Replenishing HA—which declines with age—leads to softer, smoother skin.\* HA supports healthy skin and enhances dermal tone.\*



## **SUPPLEMENT FORMULAS FOR SKIN, HAIR, AND NAILS\***

## DAILY BEST™ WOMEN

Daily Best<sup>™</sup> Women is a comprehensive daily multi-vitamin/mineral supplement targeting diverse needs unique to women. This formula features the core Daily Best<sup>™</sup> vitamin/mineral and probiotic profile, including active forms of B6, B12, and folate.

The Daily Best™ formula also includes Pureway C®, a bio-enhanced form of Vitamin C and the clinically validated form of vitamin K2, MenaQ7®. Daily Best™ Women uses shelf-stable probiotics for optimal digestive function.\*

## **LEARN MORE**

## HAIR, SKIN & NAILS (60)

The Science-Based Answer to Full Hair, Smooth Skin, and Strong Nails\*

## **LEARN MORE**

## **BIOTIN (60)**

A dietary supplement to support skin and hair health and intestinal flora function.\*



## FERTILITY AND EGG HEALTH

US fertility rates in 2019 hit an all-time low for the 4th year running, with the general fertility rate averaging out at 59 births per 1,000 women. In 2020, we saw just a .06% increase, which at least shows that we are getting back on track. Egg health plays a key role in fertility, and numerous factors can negatively impact it, including age, lifestyle, and hormone imbalances. Nutrients often play a crucial role as well.\*

These issues can disrupt the ovulation cycle. In many cases, women are presented with alternatives like in vitro fertilization (IVF), an egg donor, or even adoption. However, poor egg health is no longer considered the irreversible problem it was once thought to be.

As with all areas of women's health, the principal methods of improving egg health include exercise, proper nutrition, better sleep patterns, and reducing stress. Fertility supplements can fill any gaps.\*

When it comes to nutritional supplements for egg health and fertility, prenatal vitamins are low-hanging fruit.\* Typically referred to as preconception multiple-macronutrients, prenatals feature vitamins and minerals that support egg quality, fertility, and healthy pregnancy.\* They're proven to help improve egg health and quality while increasing fertilization rates in otherwise healthy women. \*





## NUTRITIONAL AND LIFESTYLE TIPS FOR LUSTROUS HAIR, SKIN, AND NAILS:

"A Well-Balanced Lifestyle Is Key To Optimal Egg Health and Fertility."

Dr. Stephanie O'Niell, DC, DICCP, and professor in the fields of obstetrics and pediatrics

Selecting the healthiest options for yourself and your future child must be part of a larger lifestyle choice. Our bodies must process everything we consume, so choosing a diet that consists of nourishing whole foods and fresh produce will ultimately create more balance in the body.

- Limit stressors. Hormones like cortisol and prolactin may impact ovulation and egg production. Meditation, yoga, relaxing baths, and exercise can help curb frustration levels and keep stressors at bay.
- Eat a well-balanced diet with plenty of leafy greens. The eggs you produce are part of your body, so when your overall health is thriving, you improve your chance of producing healthy eggs. Whole grains, nuts, legumes, and lean meats—if you're not vegan or vegetarian—contain the nutrients you need for optimal overall health.



- Steer clear of processed foods, trans fats, refined carbs, and excessive sugar and salt.
- Strive to achieve the optimal BMI (body mass index) for your body type. Weight issues are associated with poor fertility rates. Conversely, when your BMI is too low, the body is in a stressed state because it senses famine. Everyone is different, but a general rule of thumb for optimal fertility is a BMI between 19 and 25.
- Improve blood flow. Optimal egg health is supported by plenty of oxygen-rich blood flowing to the ovaries. So, stay hydrated to exercise regularly. Yoga, particularly positions such as child's pose, lotus, and reclining hero may improve blood flow to areas that impact fertility.

## KEY WOMEN'S HEALTH NUTRIENTS FOR FERTILITY AND EGG HEALTH:

## **Long-Chain Omega-3 Fatty Acids**

In one study, long-chained omega-3 fatty acids (DHA and EPA found in Fish Oil), in combination with lower intake of trans-fatty acids, had benefits for enhancing female fertility. \*

## **B Vitamins**

B vitamins are important for expecting mothers and are also found in prenatal multivitamins. Folate and B12 are critical for a healthy pregnancy, as they contribute to a baby's neural development.\* Additionally, adequate folate intake extends beyond the prevention of neural tube defects (NTD) in the developing child; evidence shows that folate intake is associated with a lower frequency in anovulation in healthy women and a higher probability of live births in women undergoing IVF. \*



### Glutathione

Glutathione is a powerful free radical fighter and detoxifier.\* Egg quality is actually dependent on Glutathione for its free-radical fighting abilities.\* Oxidative stress can result in an increase in hormone levels and affect ovarian health. Glutathione helps protect eggs from issues throughout their extensive development process.\* Oocytes with greater levels of glutathione produce healthier and stronger embryos.\*

## Myo-Inositol

Inositol in the form of myo-inositol helps modulate the presence of insulin in the body, which may have a significant effect on ovulation.\* This helps improve glucose metabolism in women with ovarian challenges.\* Clinical studies have demonstrated that inositol can help restore normal ovulation, improve egg quality, and increase fertilization rates in women with ovarian challenges.\*

### **DHEA**

Dehydroepiandrosterone is a powerful hormone that acts as a precursor to testosterone and estrogen. Recent studies show that DHEA may help increase follicular stimulation and estrogen production in women. \* Keep in mind that DHEA should not be taken in high doses due to potential cascading effects.

### CoQ10

Recent research shows CoQ10 improves ovarian response and may help improve egg quality and pregnancy success rates in women over 35. \* Ovulation requires an immense amount of energy. Oocytes (ovarian cells) are dependent on CoQ10 for the energy required for this process.\*



## L-Arginine

L-Arginine is an amino acid that may help improve ovarian response and pregnancy success rates.\* Supplementing with L-Arginine can help increase blood circulation to the uterus and ovaries, thus creating an optimal environment for egg production and implantation of a fertilized egg. \*

## **Probiotics**

pH levels need to be balanced before ovulation for optimal fertility. Balance is key, for both the gut and urogenital microbiome. The most common causes of imbalance include stress, poor diet, environmental toxins, and suboptimal hydration. Probiotics help keep vaginal microflora at healthy levels in light of these common yet adverse life factors.\*

## Vitamin A

Vitamin A is required for linking the blood supply to the primordial heart.\* Heart development is one of the most complex morphogenetic processes during embryogenesis. However, as a fat-soluble vitamin, too much can cause harm to a developing fetus. So, vitamin A sufficiency should be the goal and working with your functional medical doctor to find the correct balance is essential.





## SUPPLEMENT FORMULAS FOR FERTILITY & EGG HEALTH

## **DAILY BEST PRENATAL**

Daily Best Prenatal is a dietary supplement that supports healthy pregnancy and lactation\*; methylated B vitamin levels\*; balanced gut bacteria w/ Lactobacillus rhamnosus\*; and upper digestive function and nausea w/ Ginger Root Extract.\*

LEARN MORE

## **METABOLIC OVARY SUPPORT**

Metabolic Ovary Support\* supports ovarian health, insulin sensitivity and lipid metabolism.\* This comprehensive formula features the most notable nutritional ingredients to support the structure and physiology associated with the ovaries, metabolism (both glucose and lipid) as well as supporting healthy magnesium levels.\*

**LEARN MORE** 

## **ACTIVE FOLATE B12 CHEWABLE**

Active Folate B12 Chewable combines the most active, stable, and highly bioavailable forms of folic acid and vitamin B12 (methylcobalamin). Active Folate B12 Chewable is the most stable, bioavailable and active form of folate and vitamin B12. It is also recommended for methylation, cellular health, and child-bearing years/pregnancy.\* Active Folate B12 Chewable is a preferred form of folate for the support of homocysteine management, heart health and nerve function.\*



GRACEFUL AGING: HEART, BONE & JOINT, AND COGNITIVE HEALTH

As we age, bone health, heart health, and natural, age-related cognitive decline can become serious challenges if we don't take preventative measures early. The changes that occur in the brain with age-related cognitive decline, for example, most likely begin as much as 20 years—or more—before we start to see signs like memory concerns.

Bone health has always been a women's health concern, but cardiovascular health awareness has historically been more targeted toward men.

Smoking, weight gain, stress, and cholesterol are the traditional common denominators when associated with suboptimal cardiovascular health. However, a long-term inflammatory response has been identified as a cardiovascular health culprit as well.

Inflammation is a normal response to any form of irritation in the body, but it should be a short-term event, and prolonged reactions can have an impact on arterial and heart health. It's also a common denominator in substandard joint and brain health. So, women need to prioritize supporting a healthy inflammatory response ahead of time to live a higher quality of life during the golden years.



Common dietary compounds such as Omega-3 fatty acids (DHA & EPA) and curcumin are wonderful for supporting a healthy inflammatory response.\* And for our cognitive health, fish oil or Omega-3s are particularly beneficial.\* Our brains are made from dense concentrations of lipid fats—fats make up about 60 percent of our total brain mass, and 40 percent of our brain is specifically composed of DHA.

Another cognitive health concern is the buildup of amyloid plaques as we age. Amyloid plaques are clumps of protein found outside every cell in the brain. These cells are composed of amyloid peptides. When they clump together to form beta-amyloid plaques, they can significantly contribute to mild cognitive impairment and may result in further complications in the brain.

## NUTRITIONAL AND LIFESTYLE TIPS FOR GRACEFUL AGING | BONE, HEART, AND COGNITIVE HEALTH:

"Studies have shown that with sufficient levels of vitamin E, especially in conjunction with vitamin C and carotenoids, cognitive health is supported significantly.\* Furthermore, low folate levels and higher homocysteine levels are associated with increased risk for cognitive decline."\*

**Dr. John Thomas** 



Poor nutrition and lack of exercise are detrimental to bone health as we age. Supporting bone and joint health can be as simple as a well balanced diet and frequent exercise to help maintain bone density. Many only associate exercise with muscle maintenance and burning calories. But, all of the micro-impacts and stressing of the skeletal structure during exercise—even stronger muscles, ligaments, and tendons pulling on the bones—force the body to adapt and build stronger bones.

Exercise is also a significant factor when it comes to heart health and brain health, as increased blood flow helps reduce plaques building up in vascular tissues, feeding the brain all the oxygen-rich blood it needs to function at its best.

Numerous studies have proven the benefits of DHA and EPA as we age.\* This research reinforces cardiovascular health, may aid in joint health, and is critical to maintaining optimal cell structure and function in the brain and nervous system. Again, DHA is essential for brain health, but EPA really shines when it comes to joint and heart health.\*

A well-balanced diet with plenty of fish is optimal, but not everyone likes seafood, and there are some concerns about the heavy metal content—like mercury—in omega-rich fish species like tuna, salmon, trout, and cod. This is where omega-3 supplementation comes into play.





Researchers have found a definitive connection between heart health and brain health. According to Harvard Health, the best thing you can do for your brain to protect against age-related cognitive decline is maintain a heart-healthy lifestyle.

"A healthy lifestyle as you age protects both your body and your brain. Poor diet, smoking, drinking alcohol, being overweight, and being out of shape are all independent risk factors for age-related cognitive decline; in combination, they raise your risk even more."

## Dr. Rob Silverman

- Focus on movement and exercise to support bone, heart, and brain health.
- Get adequate sleep regularly. Your neurons recharge while you rest and sleep helps the brain commit new information to memory through a process called memory consolidation. Memory function becomes increasingly important as we age. Adequate high-quality rest also helps improve focus and mood.
- Support your immune system. One reason behind the health of brain cells is the status of the immune system. When the immune system is not adequately functioning, powerful immune proteins known as complement proteins develop around the plaques in the brain, contributing to beta-amyloid buildup.



- Avoid processed foods. Trans fats, refined carbs like sugar, aspartame, and excess alcohol are all proven to adversely impact memory and other health areas, such as cardiovascular health.
- Learn new things to create new neural pathways. Taking up an instrument, practicing a new language, learning to draw or sculpt, and engaging in new complex motor functions like tai chi help keep your neurons firing by building new pathways in the brain.
- Play brain games. Mentally stimulating games and puzzles like chess, sudoku, bridge, and crosswords can help sharpen some of the thinking skills that can fade as we age. But there are diminishing returns once you get really good at a type of game or puzzle. So, mix it up. Make the crossword harder by only answering the vertical questions. Instead of playing chess, play speed chess. There are also many excellent cognition and brain training apps you can use anywhere, any time.

## KEY WOMEN'S HEALTH NUTRIENTS FOR GRACEFUL AGING, BONE, HEART, AND COGNITIVE HEALTH

## Omega 3s

EPA and DHA are fatty acids critical to our overall well being—but our bodies can't synthesize them on their own. Our memory, joints, heart, and metabolism can all show signs of normal wear and tear as the years pass. And while many people are aware of the cognitive health benefits of Omega 3s, they may be surprised by the many heart, joint, and bone health advantages of these essential fatty acids.\*



## Collagen

Because collagen is a pervasive, supportive protein that impacts everything from skin cells to bone, tendons, ligaments, and cartilage, collagen can help with agerelated wrinkling and skin-sag, while supporting bone, muscle, and joint health.\*

## **DMG (Dimethylglycine)**

Mitochondria play an essential role in providing energy to cells, and they have a big impact on the process of aging. It is important to maintain healthy mitochondrial activity and biogenesis capacity as we get older, in order to prevent the advancement of age-related challenges. Dimethylglycine adds to the methyl pool and, in turn, protects against oxidative damage and optimizes mitochondrial function.\*

## Vitamin D3

Vitamin D3 supports cardiovascular function and blood pressure within normal ranges, impacting heart health by supporting your body's natural cytokine production and vascular function.\*

## Vitamin K2

Also known as menaquinone, MK- 7 has a particular benefit versus K1: it primarily works outside the liver, in bones and blood vessels.\* In blood vessels, it helps maintain arterial elasticity.\* The novel form of K2, MenaQ7® is a powerhouse nutritional supplement that supports cardiovascular and bone health, helping to redirect calcium away from the arteries to the bones.\* For those looking to support multiple systems with one nutrient, vitamin K2 (as MenaQ7®) may be beneficial.\*



## Vitamins A, C, & E

Vitamin A is a core epithelial building block for surface tissue maintenance that helps support collagen as a cofactor.\* Vitamin C (often referred to as ascorbic acid) is perhaps one of the most essential nutritional ingredients needed for overall wellness.\* On top of this, Vitamins A, C, and E are excellent antioxidants that help curb the oxidative damage caused naturally by the aging process.\* These nutrients act as free-radical scavengers, and low levels of these antioxidants and vitamins may expose brain cells to oxidative stress. \*

### Curcumin

Research continues to show that curcumin is a powerful nutritional supplement that can support endothelial function.\* It also works within cellular pathways to help support healthy levels of cholesterol in the bloodstream, which can affect blood vessels, and supports the removal of cholesterol from the liver, cells, and tissues for a healthy lipid profile.\* Furthermore, as a NF-kB blocker (nuclear factor kappa-light-chainenhancer of activated B cells), curcumin works on the molecular level to promote a healthy inflammatory response, supporting brain and joint health.\*

## Hyaluronic acid (HA)

HA declines with age. HA supports the skin's rejuvenation process and enhances dermal tone.\* So, replenishing it may lead to softer, smoother, younger-looking skin.\*



## SUPPLEMENT FORMULAS FOR GRACEFUL AGING

## **CARDIO BENEFITS™**

CARDIO BENEFITS™ is a supplement blend to support healthy cardiac tissue and vascular integrity.\* This formula provides a comprehensive cardiovascular strategy by providing nutrients to support healthy cardiac tissue, vascular integrity, and homocysteine levels while also providing nutrient replenishment.\*

## **LEARN MORE**

## D3/K2 LIQUID

D3/K2 Liquid supports bone health, calcium balance, and cardiovascular function.\* Vitamin D is a fat-soluble vitamin that is essential for maintaining normal calcium metabolism.\* Vitamin D3 (cholecalciferol) can be synthesized by humans in the skin upon exposure to ultraviolet-B (UVB) radiation from sunlight or obtained from the diet.

Our vitamin K2 formula includes the soy-free, clinically tested MenaQ7®, working primarily outside of the liver in bones and blood vessels. Vitamin K2, known as menaquinone-7 (MK-7) is the form that has been shown to support bone formation.\*



## **NEURO BENEFITS™**

Neuro Benefits™ includes both botanical and nutrient ingredients to support healthy neurological function and memory.\* The formula provides broad support through various mechanisms of action, including through those of the novel ingredients Chocamine® and Sharp-PS®, which have neurologically centered data to support their importance in a supplement regimen.\*

## LEARN MORE

## AMYLOID BENEFITS™ (90)

Amyloid Benefits<sup>™</sup> helps slow the aging process and counteract the stressors that damage the brain.\*

## LEARN MORE

## BRAIN BENEFITS™ (40)

Improve Your Brain Function with Brain Benefits<sup>TM\*</sup> Omega-3 fatty acids are super concentrated in the brain- our fattiest organ. They can do wonders for cognitive function, especially memory, focus, and mood.\* DHA and EPA help the brain learn new things, with less effort.\* They may even change the brain's structure, making space for more brain cells.\* Omega-3s protect the brain from wear and tear.\* That means you think more clearly and quickly, no matter your age. DHA and EPA aren't just great for the brain, they promote heart health, comfortable joints, and beautiful skin, nails, and hair.\* You will look, feel, and perform at your best.

