

11 Proven Strategies

LOOK AND FEEL YOUNGER LONGER



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Introduction

Most people accept that sickness and physical deterioration are unavoidable parts of life. But we fail to recognize or maybe we even refuse to look at a basic health fact: Our thoughts, attitudes, emotions and beliefs create health or sickness, enduring youth or old age.

People like Dan Buettner, National Geographic Fellow and New York Times bestselling author have proven that healthy longevity is possible.

Buettner is the man who coined the phrase *Blue Zone* to describe any area of the world where people live far longer than average. The phrase *Blue Zone* first appeared in Buettner's November 2005 National Geographic magazine cover story, *The Secrets of a Long Life.*

If we don't live in a Blue Zone we can still mimic many of the practices of the Blue Zone people. We can create lifestyle strategies for ourselves that we practice not just from time to time but everyday.

This is how we can ensure a wonderful quality of life, often running circles around people decades younger.



Master the Art of a Strong and Regal Posture

A long tall posture makes us not only look but feel beautiful and confident and grounded in our bodies. We want to aim for a neutral, upright spine that's not flexed either too far forward or backward.

In a body with excellent posture, the organs all have enough space to function. Compression caused by poor posture causes organs to function in less space. When compressed, our organs don't function quite as well.

Poor posture can cause many conditions:

- back, neck, shoulder pain; even headaches and jaw pain
- poor blood circulation
- impaired lung function
- poor digestion
- constricted nerves

- misaligned or curved spine
- stress incontinence (when you leak a little urine if you laugh or cough).

You might think physical posture is only affected by a weakening body. But it's also affected by your thought patterns.

Dwelling on the inevitability of sickness and death, family worries and drama, or fear of not being able to survive, for example, affect our physical health and structure. Feelings of hopelessness, dread, anxiety, depression, sadness and more reflect in our physiology, including the posture.

According to traditional Chinese medicine, people past the age of 60 enter the Water element phase of life. The principle emotion of Water is fear.

As many people grow older, their end of life rather than their contributions to it takes center stage in their minds. They become out-of-balance in the Water element and with the emotion of fear.

We must always strive for emotional balance for the best health possible.

We can prevent or remarkably lessen fear from gripping our psyches when we embrace one or both of the Water archetypes. The positive archetypes of the Water element are:

1) the Sage/Philosopher and 2) the Curious Child.

Theirs is a slower rhythm. They take their time. They have patience. Hurry is not part of their consciousness. Calm is evident in their manner of speaking and speech, their gait, their breathing and their response to life.

Learn more about these archetypes in [our blog](#), *The Water Type Personality According to Traditional Chinese Medicine: Understanding Your Archetype for Harmony and Balance*.

Incredibly fearful or maybe just plain exhausted with life, some people will trudge the rest of their lives with a physical and mental posture of holding back. Rather than living actively, joyfully and by their design in the way of the

balanced Water archetypes, they give up and give in.

People who live in joy and appreciation are open, expansive and their postures are upright.

Those who live in fear, feeling downtrodden and full of worry are pulling physically inward and closed. So much fear affects the body badly. The body responds to fear on a hormonal level, has difficulty accepting nutrients, becomes weaker and begins shutting down on many levels.

And it's all also reflected in the bent or hunched over posture.

The Emotional Support Called Happiness

So we see that our emotional state is just as important as our physical health. Our emotions and physical function work in a symbiotic cipher of energy. One feeds the other and back again.

One way to uplift and help balance emotion is to create a robust practice of appreciation and high minded thinking. This daily practice can help lead to happiness.

When we feel negative emotions our shoulders slump. But when we feel happy our physiology begins straightening because we feel more energetic and alive.

In our blog, *[A Theory of Happiness: We Probably Can't Be Totally Healthy and Well Without It](#)*, we said:

We can learn what makes us happy and how to get there more of the time... Happiness is what reinforces our innate sense of our true self. It is when life brings to our experience people, things, places, and conditions that resonate with us on a deeper level—the level where we feel peace, inner joy, and happiness. Happiness is also felt when the mind is at rest and free of worrying thoughts.

Physical Factors that Negatively Affect Posture

Two major factors that contribute to poor posture in older age are osteoporosis and osteomalacia.

Osteoporosis is the loss of bone mass. **Osteomalacia** is the softening of the bones.

Over time, bones tend to lose some of their minerals and become less dense (a condition called **osteopenia** in the early stages and **osteoporosis** in the later stages). Older adults often lose height because of osteoporosis when bones become weak and fracture.

Older adults also can lose lean muscle mass while gaining fat. This condition is called **sarcopenia** and it too causes weakness, frailty and a loss of height.

You can help prevent height and stature loss by consuming a consistently healthy diet and staying physically active. Both of these may help prevent bone loss.

Dietary intake is an important modifiable factor for bone health. Inadequate intake of nutrients important to bone increases the risk for bone loss and subsequent osteoporosis. The process of bone formation requires an adequate and constant supply of nutrients, such as calcium, protein, magnesium, phosphorus, vitamin D, potassium, and fluoride. However, there are several other vitamins and minerals needed for metabolic processes related to bone, including manganese, copper, boron, iron, zinc, vitamin A, vitamin K, vitamin C, and the B vitamins.

– Cristina Palacios in *The Role of Nutrients in Bone Health, From A to Z*

Women more than men develop hunchback or **age-related postural hyperkyphosis**. Hyperkyphosis impairs mobility and increases the risk of falls and fractures associated with older age.

All the exact causes of hyperkyphosis have not been fully established. But experts believe it generally develops from one of two conditions:

- muscle weakness and degenerative disc disease (causing vertebral fractures and worsening hyperkyphosis), or
- vertebral fractures that occur first in the spine and then precipitate development of a hunched over back.

Proactive Prevention of Bone Loss and Degrading Posture

Ideally, we don't want to wait to take action until we start suffering bone loss and poor posture. Even if you're well below senior age, healthy diet and sensible exercise will keep you feeling strong, walking straight and tall all the way into your advanced years.

But as soon as you notice your posture is weakening, no matter what age that is, you should aggressively work to mitigate or even reverse it.

Consume a diet rich in dark leafy greens to enrich bone density and improve your health. Be sure you get enough vitamins and minerals like the ones mentioned in the Palacios quote above.

It's best to get your nutrients from food. Make supplementation a secondary option if you can't get all the nutrition you need from food.

Like diet, exercise will also not only strengthen your musculature but nourish your skeletal system as well.

Include a weight resistance exercise program and a regimen of stretching exercises (or yoga).

Give your spine specific flexibility exercises while you also develop flexibility over your entire body. The more flexible the spine is and stronger your core, the greater your health. Many gyms offer equipment to help improve spinal flexibility and strength.

Make a good set of core-strengthening exercises the foundation of your exercise program. It's a strong core that holds the body up, not the bones or spine. What you're really after is developing the abdominals underneath the surface abdominals. These are the transverse abdominis.

Often, just getting in to the gym consistently improves your self-image so much your posture naturally begins to straighten and rise.

A great benefit of weight resistance is that it's very grounding. It will make you feel like you're fully in your body. Your body will feel more substantial, agile and stable. You'll rarely fall, if ever, and nearly eliminate your risk of bone fracture from falling.

Create an all around good posture improvement program. Blend a sensible yoga or stretching practice with weight resistance workouts, nutrition, appreciation, balanced emotion and high minded thinking.

Tip for Posture Improvement: Direct your awareness to your center chest and imagine a string pulling upward from your heart. Let the upward pulling string lift your chest and encourage your taller straighter posture.

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Lean Body Mass Is More Important Than Ever As You Age. Learn How to Create and Keep It.

Experts who study aging people notice they tend to experience decline in one or more of the following areas:

1. food and water intake
2. lean body mass
3. physical activity and the ability to perform even normal activities of daily life.

Are these declines the result of the aging process or is a more sedentary life in older age the culprit? Doesn't it seem that each of these three declines contribute to each other?

Medical professionals often label these declines caused by "old age." But are they looking at their patients' whole picture? Conventional medicine doesn't usually do so. You have to find a good holistic healthcare practitioner for that.

Studies in elderly people who have been active all their life such as the Lapps in Finland and Sweden show no decline in functions until the date they sell their reindeer and sit down, whereafter they quickly decline to the level of other people of the same age. –Mikael Fogelholm in Physical Activity: A Part of Healthy Eating? Report from a Nordic Seminar*

When the Loss of Lean Tissue Begins

The human body is made up of fat, lean tissue (muscles and organs), bones, and water. After age 30 our bodies slowly begin the process of atrophy—the loss of lean strong tissue. This is when our muscles, liver, kidneys, and other organs may lose some of their cells. We lose lean tissue and take on body fat.

As a case in point, seniors tend to have one-third more fat than when they were young.

If we do nothing to counteract the onset or continuation of atrophy, we head down the road of steady fat accumulation and increasing weakness. We become more and more debilitated over time.

Men generally tend to gain weight until about age 55. At about that point, they begin to lose weight. This weight loss is caused by a drop in the male sex hormone testosterone.

Women generally tend to gain weight until age 65 and then begin to lose weight. A great deal of this excess weight localizes in the girth around the internal organs and, unfortunately, this weight is mostly fat.

With older people, hormonal and lifestyle changes are often the cause of weight gain or loss.

Weight loss later in life, especially in non-active seniors, occurs partly because fat replaces lean muscle tissue and fat weighs less than muscle.

Without a healthy proportion of muscle in the legs combined with a tendency to stiffer joints, many older people experience compromised mobility. They're challenged to navigate their bodies with ease. Their balance is compromised making the possibility of falls more likely.

Our lifestyle choices affect how rapidly aging progresses. These same choices can even positively affect atrophy in very advanced age.

Physical training in older people proves very positive for increasing lean body mass. It increases work capacity in older people including the very elderly. Weight resistance training is key for improving work capacity for an independent lifestyle.

A training intervention study in 85 year old women, including endurance training, showed that a 10 month training program was able to rejuvenate their work capacity by 10 years. –Mikael Fogelholm in Physical Activity: A Part of Healthy Eating? Report from a Nordic Seminar

Weight resistance exercise helps reduce fat and weakness, but we should do it wisely to prevent injury. It's not about how much weight you can lift. It's about repetitions (even of light weights) and consistency in your practice.

You want to gradually build up to a well rounded workout program that targets all your muscle groups. Take periodic days of rest between several consecutive workouts. Combine your weight resistance training with good nutrition and other exercises like walking and/or yoga.

Diet combined with exercise is also important for developing lean muscle body mass.

We mentioned at the outset of this article that a decline of food and water intake is the hallmark of an aging sedentary person.

A vigorous exercise program signals the body to consume nutrition. And it encourages increased water intake which is vital for all body functions. Eating and drinking water are no longer a problem for the active nutrition conscious senior.

Eating much less animal fat combined with more physical exercise can help you get lean and spry.

Fats from vegetables, nuts and seeds are usually a better alternative and are extremely beneficial for health.

If you curb the offenders in your diet while adding a consistent weight resistance and flexibility program, you'll start noticing results very quickly. Learn what those dietary offenders are for you. Observe your food sensitivities and don't stress your body by eating them anyway.

In older age, any kind of stress just packs on more fat.

Learn, too, what good nutrition actually is. It's not necessarily what the magazine covers say.

Find your sweet spot of consistently practiced diet plus exercise and you'll lose that extra fat and weight incrementally over time. You won't need TV-advertised cool sculpting or liposuction from a plastic surgeon.

You'll accomplish weight loss and a leaner firmer body **organically**.

Lean body mass is a key determinant of survival during bedridden serious illness.

Without enough lean body mass you'll have less strength, function and mobility. When you lose fat and gain muscle firmness and tone, you'll have a strong body able to easily meet the physical challenges of daily life.

Should you find yourself bedridden for a period of time you want to be sure you're not going into it in a deficit position. Near complete lack of movement aggressively and rapidly atrophies muscles.

Critically ill people typically lose 1% of muscle protein for

each day of illness. That makes it vitally important to build up a healthy store of lean body tissue. Lean body mass is a key determinant of survival during bedridden serious illness.

A smaller lean body mass may mean that many older people lack the physical reserve to withstand a prolonged period of critical illness, where more than 1% of body protein may be lost each day even when adequate energy and protein are being provided. –Nancy Bernhardt et al in Nutrition for the Middle Aged and Elderly

Lean tissue loss is pretty inevitable during prolonged bed rest if you become ill. You can only counteract it with a robust countermeasure like exercise.

Studies find that muscle loss is more accelerated in older adults during periods of bed rest.

... data from the only study to examine older adults suggests that the loss of lean tissue in healthy older adults during bed rest far exceeds the losses experienced by their younger counterparts. –Kirk English et al in Protecting muscle mass and function in older adults during bed rest.

Even just one week of complete bedrest is damaging:

Prolonged immobility is harmful with rapid reductions in muscle mass, bone mineral density and impairment in other body systems evident within the first week of bed rest which is further exacerbated in individuals with critical illness. – Selina Parry et al in The impact of extended bed rest on the musculoskeletal system in the critical care environment.

Lean body mass is also important for:

- respiratory muscle strength
- improved circulation of blood to the organs which keeps them healthy and able to rid the body of toxins
- the ability to fight diabetes because muscles store glycogen for readily available energy source when needed
- improved bone strength and density; although exercise targets muscles it also strengthens the bones because bones, like muscle, react to the demands we place on them.

Calorie Burning and Lean Muscle Mass

An interesting fact about calorie burning is that muscles burn two to three times as many calories as the same amount of fat. So the more muscle you have the more calories you'll burn and the less calories will be available to be converted into fat.

If you consume less calories than you need to burn on a daily basis, your body will actually convert your fat cells into energy and burn them instead.

When you build lean muscle mass you naturally decrease your body fat percentage. And once your muscle mass begins to increase as your body fat decreases, you'll notice you have the greatest prize of all—more energy.

For great health and a high quality of life lean body mass is key.

Lean body mass gives you the ability to undertake daily activities with confidence as you mitigate and slow the aging process. A strong lean body raises your self-esteem and helps you live better.

Your body shape and weight may change naturally as you age. But many people prove every day that you can alter that process with simple yet powerful lifestyle choices.

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Embrace Earth's Energetic Vitality and Feel Renewed. Ground Yourself.

The surface of the earth radiates an enormous amount of electrons with a beneficial negative electrical charge. Whenever you place your body in direct contact with earth's surface, negatively charged electrical volts begin circulating between the earth and the top of your head.

Stand outside on a sunny day wearing just about **any type of shoe** and your body will benefit only minimally from this charge. Most shoes today have soles made of synthetic materials. Unless your shoes' soles are pure leather, they'll prevent you from receiving all of the beneficial charge you could be getting from the earth.

But stand barefoot on the earth and now your whole body is in full and beneficial electrical energy exchange with earth's surface.

The longer you stay in unobstructed contact with the earth the better. But you can benefit from earth's negative electrons after just 30 minutes of bare earth contact. This includes putting your body in contact with grass, stones, sand or trees. Stand in one place, walk, or lay down.

The body is electrically charged just like the earth. By grounding ourselves to earth (also called earthing), we allow this full natural energy exchange with the earth.

Harmful electrical fields are constantly bombarding our bodies and most of it happens right inside our homes causing chronic illness in some. Daily or frequent earthing brings balance to the insulting charges we receive in the course of the day.

Our modern lifestyle isn't serving us all that well.

Many centuries ago, people walked either barefoot or in footwear made of animal skins. They also slept directly on the ground on animal skins or furs. People then were in near constant contact with the earth's surface electrons.

Today we wear shoes with thick soles often made of rubber. Most of us live in houses made of very unnatural materials. We walk on asphalt surfaces. The thought of going barefoot or surrounding ourselves with the natural world seems unreasonable. We've nearly completely cut ourselves off from the wonderfully charged flow of balancing electrons earth continually offers us.

Grounding the body works the same way as grounding an electrical appliance. Without consistent grounding our bodies short-circuit. This short-circuiting contributes to physical, emotional, and mental imbalances.

We can achieve a re-balancing of our electrical system with regular connection to the earth. Biophysicist James Oschman explains it this way in *Energy Medicine—The Scientific Basis*:

The moment your foot touches the Earth, or you connect to the Earth through a wire, your physiology changes. An immediate normalization begins. And an anti-inflammatory switch is turned on. People stay inflamed because they never connect with the Earth, the source of free electrons which can neutralize the free radicals in the body that cause disease and cellular destruction. Earthing is the easiest and most profound lifestyle change anyone can make.

Could the sharp increase in chronic diseases, sleep disorders, immune and inflammatory diseases be related to our disconnection with earth's surface and the natural world?

It seems so. Gaétan Chevalier et al. say this in their scientific paper, *Earthing: Health Implications of Reconnecting the Human Body to the Earth's Surface Electrons*:

Environmental medicine generally addresses environmental factors with a negative impact on human health. However, emerging scientific research has revealed a surprisingly positive and overlooked environmental factor on health: direct physical contact with the vast supply of electrons on the surface of the Earth. Modern lifestyle separates humans from such contact. The research suggests that this disconnect may be a major contributor to physiological dysfunction and unwellness.

Get the health benefits of grounding.

Earthing our bodies isn't only achieved by walking barefoot on the earth. You can wear specially designed earthing shoes, socks and wristbands, and sleep on earthing bedsheets.

Grounding offers many physiological and mental benefits.

They can help mitigate sickness and symptoms of aging:

- a clearer mind and thinking process
- more balanced emotions

- more calm nervous system, less anxiety and improved response to stress
- elevated energy
- better managed pain and reduced inflammation
- improved sleep quality and patterns
- better regulated circadian rhythm
- boosted immunity
- lessened inflammation
- more balanced metabolism
- improved circulation
- neutralized free radicals
- reduced oxidative stress

Scientists found in one experiment(1) that grounding during a single night of sleep reduces the primary indicators of osteoporosis.

The same scientists discovered in another study that earthing helps regulate thyroid function. This is a significant finding since thyroid hormones affect almost every physiological process in the body.

In still a third study they found that earthing accelerates the immune response in humans.

Grounding yourself makes you more present to life.

When we're grounded we'll feel centered, solid, strong and balanced. We'll feel truly and firmly rooted in our bodies.

If you feel like a leaf blowing in the wind, shaky, spacey, at loose ends, less present or fragile, get in touch with the ground.

Earthing's an important way to make you feel more rooted to the home that sustains you, the Earth. It's virtually the simplest, most natural healing device known to humankind.

Grounding is not a panacea. But do consider it a part of a holistic approach to ever-improving health, healing and age mitigation.

Let the surface of the earth help clear and balance your energy every day. Then notice how much more balanced and alive you feel on all levels and in all ways.

And forget not that the earth delights to feel your bare feet and the winds long to play with your hair. –Kahlil Gibran

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Walking: First Step to Keeping Your Heart Healthy and Hold Aging at Bay.

Heart disease tends to show symptoms as people grow older. It impacts how youthful, strong and mobile people feel. And if ignored it can seriously affect your quality of life.

Cardiovascular Disease: The Big Umbrella

Cardiovascular disease is the term for all types of diseases that affect the heart or blood vessels, including coronary heart disease (clogged arteries), which can cause heart attacks, stroke, heart failure, and peripheral artery disease. – National Heart, Blood and Lung Institute at National Institutes of Health

Heart disease is a type of cardiovascular disease.

'Heart disease' is a catch-all phrase for a variety of conditions that affect the heart's structure and function. Keep in mind: All heart diseases are cardiovascular

diseases, but not all cardiovascular diseases are heart disease.

The most common type of heart disease is coronary heart disease. In fact, when people talk about 'heart disease' they often mean coronary heart disease. –National Heart, Blood and Lung Institute at National Institutes of Health

Various high risk factors for heart disease build up over time and compromise cardiovascular health. They include:

- high blood pressure
- high cholesterol
- smoking
- diabetes
- overweight and obesity
- poor nutrition
- physical inactivity
- excessive alcohol use

- vascular stiffness and inflammation, and
- mental stress.

Coronary heart disease is a type of heart disease.

Coronary heart disease is often referred to simply as 'heart disease' although it's not the only type of heart disease. Another term for it is coronary artery disease.

Coronary heart disease occurs when plaque (a combination of fat, cholesterol, calcium, and other substances found in the blood) builds up in your arteries. You may have heard this called clogged arteries or atherosclerosis.

The plaque reduces the amount of oxygen-rich blood getting to your heart, which can cause chest pain (also called angina). Plaque can also lead to blood clots, which block blood flow and are the most common cause of a heart attack. –National Heart, Blood and Lung Institute at National Institutes of Health

Cardiovascular disease can provoke heart attack, stroke and accelerated aging.

Impeded blood flow results in swelling of legs, feet, ankles or belly. It can even end in stroke since it deprives proper oxygen supply for the heart and the rest of the body. Plaque can also dislodge from an artery and cause a block resulting in heart attack.

Poor blood circulation causes chest pain (angina) and impaired cellular function. People experiencing angina report shortness of breath, fatigue and weakness.

Cardiovascular disease also directly accelerates the aging process. With poor blood circulation your body isn't getting all the nutrients it needs as efficiently as possible. Nourishment of the body contributes to vitality. Balanced blood circulation is also associated with radiant younger looking skin.

The stress of experiencing the symptoms of cardiovascular disease also accelerates aging. This is because the body has to work overtime to compensate for all the imbalances it's being confronted with.

Similar to our other muscles, you can strengthen the heart and even reverse some of its aging symptoms.

Delay, lower, or possibly avoid or reverse your risk of heart disease with these exercise strategies

Regular Cardio Exercise

"Research continues to show that exercise is the best way to slow your heart's aging process," says Dr. Aaron Baggish, Director of the Cardiovascular Performance Program at Harvard-affiliated Massachusetts General Hospital.

Cardiovascular doctors often urge increasing exercise and physical activity to improve overall heart health. This is because physical exercise forces the heart to pump more blood throughout the body and to the muscles and lungs.

Over time, increased exercise relaxes blood vessels causing more efficient heart function. Relaxing the blood vessels helps improve blood flow, in turn, keeping blood pressure low.

Walking flat out improves cardiac risk factors.

You can pursue cardio workouts from beginner to advanced levels at your gym, or on the treadmill or bicycle. But a really simple way to get your cardio in is to walk briskly and consistently right in your neighborhood.

Fitness experts advise aiming to walk briskly for about 150 minutes per week all told. Many sources urge walking 5,000 to 7,000 total steps a week.

If you're just beginning to endurance walk after years of a sedentary lifestyle, take it easy and build up to it.

Walk to the end of your driveway or to your street corner if it's all you can do today. Tomorrow you'll be able to walk further. Every day you walk above and beyond your customary steps of the day will build on the previous day's accomplishment.

Remember and live by the old adage: "By the yard it's hard. By the inch it's a cinch." In a month you'll be amazed at how far you can walk without getting winded.

When comparing the results of the most recent National Runners' Health Study with the National Walkers' Health Study, researchers found that the energy used for moderate-intensity walking and vigorous-intensity running resulted in similar reductions in risk for high blood pressure, high cholesterol, diabetes and heart disease over the study's six year period. – Elaine Murtagh et al in Walking: the First Steps in Cardiovascular Disease Prevention

A study published in the *British Journal of Sports Medicine* found that people who consistently walked several thousand steps a week improved many health factors:

- blood pressure
- slower resting heart rate
- reduced body fat and body weight
- lower cholesterol and
- increased physical endurance.

The study also showed improved depression scores now that the participants were creating better quality of life.

Walking is a perfect fitness prescription for inactive people.

You don't have to access walking like you do a fitness center or coach. People of all ages and social groups who are able to walk can make walking a practice. You don't need money to walk and it poses little risk of injury.

In a report that included findings from multiple well done studies, researchers found that walking reduced the risk of cardiovascular events by 31% and cut the risk of dying by 32%. These benefits were equally robust in men and women. Protection was evident even at distances of just five and a half miles per week and at a pace as casual as about two miles per hour. The people who walked longer distances, walked at a faster pace or both enjoyed the greatest protection. – Walking: Your Steps to Health. Exciting benefits of walking for heart health, including lower risk of heart attack and stroke, Harvard Men's Health Watch

If You Notice Breathlessness

When you perform moderate intensity exercise like brisk walking, it's normal to breathe a little harder. But if you're breathless and can't speak while walking, you should see a doctor.

This could be a sign of a potentially serious heart condition. Coronary heart disease (the cause of heart attacks), heart failure and abnormal heart rhythms like atrial fibrillation(1) can all cause breathlessness.

Most heart disease is treatable, but it's vital to have it diagnosed before it's too late.

If you can endurance-walk without getting winded, this can, at least in part, indicate you have a good level of cardiovascular vitality.

Walk briskly as consistently as possible to improve blood pressure. Lower cholesterol levels and reduce weight and obesity with a walking practice. Walking also helps with mental stress which is another risk factor for heart disease.

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Keep Your Lymph Moving

Many beauty professionals understand the enormous importance of lymph fluid movement for anti-age skin care. But most consumers don't. Unless you learn about it on your own, you won't hear about it from most cosmetics manufacturers. Generally, most cosmetics manufacturers don't make skincare products formulated specifically to help move lymph. But PHYTO5 does.

What exactly is lymph?

Essentially, lymph is a colorless fluid that carries waste out of the tissues by way of the bloodstream, *specifically venous or blue blood circulation.*

An average human body contains about two quarts of lymph fluid or one-third the amount of blood of that body.

While blood relies on the sturdy and powerful heart pump for steady and constant flow, lymph has no such pump. Breathing, body movements and gravity are responsible for lymph movement.

Lymph starts out as interstitial fluid(1) carrying waste material the cells have discarded. Lymph vessels collect waste matter from the cells and tissues and then slowly move the waste to lymph nodes. There are roughly 400 to 600 lymph nodes connected to lymph vessels.

Lymph vessels are similar to blood vessels with thin walls. They transport more than waste matter through lymph fluid. They also carry soluble molecules and immune cells to the lymph nodes.

The 1-2-3 of Waste Removal by the Lymph

1. The waste matter in the interstitial fluid is sucked into lymph ducts.
2. There white blood cells in lymph fluid bathe then drain the processed and liquified waste through the complex network of lymph nodes forming the lymphatic system. (The lymphatic system consists of organs, ducts, and nodes.)
3. Lymph then carries waste out of the body by way of the bloodstream where it's mixed with blue blood before re-entering the heart and venous circulation.

Unlike blood, lymph flows in only one direction and leaves nothing behind. Lymph's movement also helps balance the constant volume of blood.

The lymphatic system is critical to the body's immune system.

Lymph helps defend the body against disease by producing and distributing lymphocytes (lymph cells). These lymphocytes protect us against antigens like viruses and bacteria. This is why lymph and lymphocytes are vital components of immunity.

Whenever lymph flow gets blocked the immune system weakens and the aging process accelerates. Conversely, the intensity of the natural aging process itself affects lymph's good function and flow.

If you want to look and feel younger longer it's vital to counteract lymph's sluggishness as you age. You want to do everything you can to keep lymph moving in your body.

Function and capacity of the lymphatic system gets sluggish with age for three reasons:

1. The muscles that help circulate lymph lose mass and become weaker (called decreased lymphatic contractile pressure).
2. We tend to experience a decrease in lung capacity with age. Breathing causes the diaphragm to act as a bellows that promotes lymph movement or drainage. It is one of the principal ways our body moves lymph.
3. The body is challenged to deal with higher oxidative stress and less antioxidant activity. This creates a more acidic inner terrain which leads to lymph congestion.
(Journal of Lymphoedema, 2017, Vol. 2, No. 2)

Lymphedema and Lymphoma

Lymphedema occurs when fluid is retained in a localized part of the body and the tissue swells.

A compromised lymphatic system is the most frequent cause of lymphedema. Parasitic infections or complications from cancer treatment also cause lymphedema swelling.

Lymphedema is incurable and progressive. We can only potentially reduce the symptoms of swelling, discomfort or

pain. Lymphatic massage and wearing compression clothing can help.

Lymphoma is a disease in which lymphocytes become malignant and grow too fast or live too long. The malignant lymphocytes then accumulate in the lymph nodes or other areas of the lymphatic system forming tumors.

It's important to be aware of and proactive with your body's flow of lymph.

There are many ways to keep your lymphatic system functioning properly:

Exercise with weights regularly to maintain muscle strength and lean body mass. Muscle contraction forces tiny one-way valves of the lymphatic system to open and close, pushing the fluid through the system.

Walk or rebound consistently. Each step or jump you take is a weight-bearing repetition. When you lightly pound the ground, floor, or pavement through walking, it creates desirable pump-like gravitational pulls on the lymphatic system.

Practice yoga or stretching to help direct lymph through the deep channels of the chest. Practice yoga or stretching promotes lymph flow throughout the body.

Practice deep breathing. The act of breathing creates a lymphatic pump in itself. It helps direct lymph through the chest. Deeper breathing is the most important facilitator of lymphatic function. Shallow breathing leads to lymphatic congestion. For help with a proper breathing exercise, read our blog, *Six Breaths a Minute to Slow Aging and Its Causes* here.

Get manual lymphatic massages from a licensed lymphatic massage therapist.

You can also receive a facial and full body lymph drainage treatment performed by a PHYTO5 trained professional with the Biorhythmic Drainer. PHYTO5's award-winning Biorhythmic Drainer mechanically, rhythmically, and precisely reproduces the gentle movement of a manual massage. It focuses on moving stagnant energy and fluids.

Drainage is a medical term and does not remove any fluid. It indicates movement or circulation. When there is an insufficiency or an excess of fluid, a drainage can help balance fluid and energy flow.

The well-known Japanese cosmetics company, Shiseido,(2) found in 2015 that impaired dermal lymphatic vessels are an integral cause of sagging skin(1) rather than collagen loss.

Stay hydrated to help prevent stagnant lymph flow.

Lymph gets thicker and more sludgy when you're dehydrated but flows well when hydrated.

Avoid processed foods and bad fats. These can cause inflammation which leads to lymphatic congestion.

Eat lots of fresh fruits and vegetables especially green.

Chlorophyll in green produce not only purifies the blood, it purifies lymph.

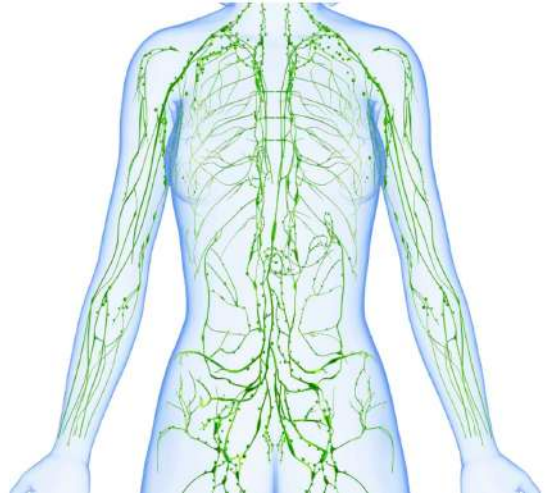
Avoid chemically driven skin and body care products, cleaning products and pesticides. All these hinder the body's natural detoxification processes.

Learn how to resiliently respond to stress. The waste products of stress-fighting hormones are acidic. Acidity leads to lymph congestion.

Stop wearing tight fitting clothing including tight underwear and underwire bras. They restrict lymph flow.

Stay away from unhealthy habits like smoking.

Know where your lymph nodes are. If you know where they are it can help you support lymph flow in those areas. They're typically found concentrated in the face, neck, groin, and armpits. Check these areas periodically if they feel uncomfortable. A sore lymph node will be sensitive to the touch. (See adjacent diagram for a snapshot of the body's lymphatic system.)



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Endnotes and sources for this chapter:

(1) Interstitial fluid is the fluid that carries cells throughout the body.

(2) In 2015, the well-known Japanese cosmetics company, Shiseido, found impaired dermal lymphatic vessels to be an integral cause of sagging skin. Before 2016, sagging skin was mainly attributed to collagen loss. Their press release states:

Shiseido Co., Ltd., through joint research with Professor Nobuyuki Takakura of the Research Institute for Microbial Diseases, Osaka University, has revealed for the first time that impaired function of dermal lymphatic vessels lead to accumulation of subcutaneous fat, which ultimately causes 'sagging' of the skin.

Zolla, Valerio, et al. "Aging-Related Anatomical and Biochemical Changes in Lymphatic Collectors Impair Lymph Transport, Fluid Homeostasis, and Pathogen Clearance." *Aging Cell*, John Wiley & Sons, Ltd, Aug. 2015, www.ncbi.nlm.nih.gov/pmc/articles/PMC4531072/.

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Keep Your Body Hydrated

A healthy vibrant body is approximately 70% water. Bones are 30% water and blood 90%. Approximately 75 million Americans are chronically dehydrated and don't know it. Chronic dehydration is one of the principle sources of many of the health conditions many Americans experience today.

Dehydration shows up as many different symptoms beyond thirst and dry, sagging skin.

Aside from these, general symptoms of dehydration include:

- headache
- weakness
- dizziness
- fatigue
- loss of balance

- lethargy.

If you allow your body to remain consistently dehydrated, symptoms can scale up more seriously.

These more serious warning signs include:

- dry mouth, skin or eyes
- little or no urine output
- sluggishness
- high blood pressure
- rapid heartbeat
- fever
- loss of skin elasticity.

We also find the following symptoms in out-of-balance people who are generally even more dehydrated than the average person:

wrinkling, body mass and size shrinking, increasing weakness, degrading posture, falling and breaking bones, high blood pressure causing strokes, constipation, incontinence, quick temper and irritability, complaining and grumbling, mood swings, sadness and depression.

Our skin and body tissues require ample amounts of water.

We may not get enough water into our cells, where it's crucial for metabolism and countless other functions.

So says Dana Cohen, MD, author of *Quench: Beat Fatigue, Drop Weight and Heal Your Body Through the New Science of Optimum Hydration*.

You have to keep the brain lubricated. The brain requires the greatest amount of water to function. This is because water facilitates the electrical functions that essentially command the entire body.

You can get water from eating but drinking water should be your first priority. Most of the water we supply to the body comes from what we drink. The rest comes from food and leftover cellular metabolism. We lose 80% of our fluids in urination and 20% through perspiration through the skin or respiratory system.

Move water through the body with exercise. Water runs through our veins, arteries, glands and organs in order to feed, pump, and transport fluid. Even gentle workouts or walking help disperse water through the body. When you move your connective tissue through exercise, it helps pump water through the body.

Water also regulates body temperature by distributing heat and cooling the body through perspiration.

It stabilizes body temperature by helping regulate blood flow. When the body is dehydrated, blood flow reduces leading to an increase in body temperature. When the body is properly hydrated, blood flow increases helping cool the body.

Dehydration affects our blood pressure. Water makes up about 73% of the human heart. So staying hydrated is a key factor in regulating blood pressure. Dehydration also raises sodium in blood which can lead to high blood pressure.

Drinking water can help normalize your blood pressure but doesn't necessarily lower your blood pressure unless you are dehydrated. Because your blood is made up of 90% water, the overall volume will decrease when you are dehydrated. When this happens, the body will respond by narrowing blood vessels, causing blood pressure to rise. – Yvette Stines, MEd, MS at Very Well Health

Take care of your kidneys.

Kidney, the organ of the Water element in traditional Chinese medicine, suffers when the body's dehydrated. Lack of water can affect your kidney function and increase the risk of kidney stones.

Constipation is another side-effect of dehydration.

Dehydration also leads to muscle damage and weakness along with brittle bones. Both of these can lead to falls and bone breaks.

Traditional Chinese medicine (TCM) tells us there are five consecutive stages of life.

In the fifth and last of the five phases of life, after 60 years of age, is when many people become seriously dehydrated causing stiffening and loss of skin tone. TCM's Five-Element Theory astutely assigns Water the element of this life phase.

Especially in this phase of life, dynamic yang energy is at its lowest point. Most people in this phase stop exercising, being active, drinking water, and eating well.

As one result, they experience a notable loss of collagen. Collagen absolutely needs water to do its job of holding the structure of skin.

... collagen is very dependent on associated water for its mechanical properties. In skin, where type I collagen is dominant, there is a longstanding concern that the skin and therefore collagen may partially dry out and result in structural degradation.” –Richard G. Haverkamp et al in the article, *Collagen dehydration*; International Journal of Biological Macromolecules

For these and other reasons, continued good hydration is critical.

But many older adults don't feel thirsty even as their bodies require more hydration than ever.

Many older adults experience a decrease in receptor sensitivity (osmo- and baroreceptors) responsible for detecting the fluid within and around cells.

Even though their bodies are requiring more water, they don't feel thirsty. **Older adults need to drink several glasses of water a day whether they feel thirsty or not.**

Gel water charged by electrolytes fuels the cells of the body.

Groundbreaking research from Harvard and Cornell Universities has found that the water in both human and plant cells is not H₂O but H₃O₂.

This is a gel-like structured water charged by electrolytes acting as fuel "for every action of every cell," notes Gerald Pollack, PhD,(1) head of the University of Washington's Pollack Water Lab.

Colloquially called "gel water," gel water is produced when fruit, vegetables, cacti, chia seeds, and collagen are introduced in small amounts to drinking water.

The Pollack Water Lab's findings about water and hydration indicate that the food we consume is almost as important as the water we drink.

Certain studies show drinking water alone is not enough to be well hydrated. Some subjects in these studies proved

this when they couldn't achieve hydration even though they were over-drinking water.

Dr. Pollack believes gel water primes our cells for optimal function. He says it's actually more hydrating than water not 'improved' with produce.

The vitality and absorbability of gel water is much greater than normal drinking water. The Pollack Water Lab describes it as water that's not quite liquid, vapor, or ice and identified by an extra hydrogen and extra oxygen atom.

[Increasing gel water] in the body is one of the best things you can do for your body. I've seen amazing results in hundreds of patients, says Dana Cohen, MD, author of Quench: Beat Fatigue, Drop Weight and Heal Your Body Through the New Science of Optimum Hydration.

By drinking gel water, Cohen says:

Weight loss becomes easier than we ever thought possible. We also think better, move better, sleep better, age better...

European research shows that consuming plants rich in gel water is up to twice as hydrating as regular drinking water. Gel water passes more readily into our cells. It's denser and

less likely to leak out of damaged or aging cells.

Here are tips for consuming gel water.

The way to consume gel water is simple.

- Just keep drinking plain water but add a slice of citrus, piece of fruit or leaf of lettuce, for example.
- Another way is to sip water while you consume:
 - potassium-rich foods like bananas and broccoli or
 - magnesium-rich foods like avocado and dark chocolate.
- You can also add a pinch of Himalayan salt to your water to add electrolytes. This transforms regular water into gel water.
- Eat six servings of gel-water-rich foods daily. In other words, eat six servings of fresh produce whose water has not been cooked out.

- For every dehydrating grain-based food you eat, add an extra portion of fresh gel-water-rich produce to compensate.
- Always avoid processed foods because they siphon off fluid during digestion.
- Eat plant-based healthy fats.

Water enters cells through an oil-guarded membrane," author Cohen says. "Good fats, especially omega-3s, keep membranes supple, increasing absorption."

- Add a teaspoon of crushed chia seeds to your smoothies. When the blender crushes the seeds more gel is created.
- Cook with bone broth. It's full of collagen and gel water.
- Cook with coconut oil or ghee both of which are full of gel water and electrolytes.
- Using an infrared sauna creates gel water inside the body. The light waves in the red wave spectrum range reach the water molecules in your body. They then

split into positive and negative charges and shift their molecular structure into gel water.

- The sun does exactly the same as the infrared sauna method above. Modest exposure to the sun is nature's way of purifying, charging and optimizing water right inside your body.
- In theory, the subtle electrical charge of the planet could help split the water molecules around and within us for optimized hydration. Learn more about how to harness earth's beneficial electrical charge in Chapter 3 on Grounding.

Hyaluronic acid is very good at retaining water in the body.

Be sure you eat hyaluronic acid-rich or -promoting foods especially if you're older.

Our bodies produce hyaluronic acid naturally. It's a chief component of all connective tissues. It forms a gelatinous protective matrix that surrounds our cells.

A quarter-teaspoon of hyaluronic acid holds about one and

a half gallons of water. Scientists have found hyaluronic acid all throughout the body, especially in eyes, joints and skin.

Hyaluronic acid helps joints work like a well-oiled machine. It keeps bones from grinding against each other which could cause pain and injury.

It helps with wound healing, reduction of scars, elasticity of skin and smoothing of lines.

Bone broth is touted to be the best source of hyaluronic acid.

There are very few actual vegan sources of hyaluronic acid. Most plant-based foods support your body to produce its own hyaluronic acid.

Actual vegan sources of hyaluronic acid are derived from bacteria and yeasts through a process of fermentation. This process creates cells of a small molecular weight ideal for absorption and skin health.

The green algae chlorella is one good vegan source with many other health benefits including being the only known

plant source of vitamin B12.

These vegan foods help boost your body's own production of hyaluronic acid:

- soy (tofu)
- beans
- dark leafy greens (kale)
- sweet potatoes
- citrus fruits
- berries
- tomatoes
- almonds
- dark chocolate
- red wine

Endnotes and sources for this chapter:

1. Jerry Pollack (Department of Bioengineering, University of Washington) is recognized worldwide as scientist, speaker and author. His passion lies in plumbing the depths of natural truths. The Pollack Lab is best known for its work with water. It also conducts research on energy, health, and fundamental physics

Pollack discovered and published the first research on gel water in 2009. He received the first Emoto Peace Prize and is a recipient of the University of Washington's highest honor, the Annual Faculty Lecturer Award. He is founding Editor-in-Chief of the research journal WATER and Director of the Institute for Venture Science. Dr. Pollack's (award-winning) books include: *The Fourth Phase of Water* (2013), and *Cells, Gels, and the Engines of Life* (2001).

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Certain Minerals Are Excellent In Anti-Aging Skincare

Surveys show that an alarmingly high number of Americans know little or next to nothing about nutrition. As a population, we fail to make a direct correlation between diet, health, well-being and quality longevity.

Even learning just a few core nutrition facts can do wonders for your health. It can potentially help you alleviate a number of physical symptoms including symptoms of aging.

Minerals are extremely necessary in human nutrition. But how often do we think of minerals for skin health?

Mineral loss in skin is mainly caused by two factors: the normal process of aging and living in stressful conditions.

A number of minerals play an enormous role in skin health. Some even provide therapeutic benefits for certain skin conditions.

Skin has to have a good mineral delivery system in order for it to hold hydration, support collagen production and heal itself. If you don't get those minerals in your diet or skincare products, creams and applications won't help very much.

CHROMIUM

Continual blood sugar spikes are extremely destructive in skin health and aging. Eating foods that release sugar into our bloodstream very fast causes blood sugar spikes.

When excess sugar reaches the dermis, it first quickly begins to bond with collagen and elastin. Next, it creates cross links between fibers that cause the natural collagen lattice to become stiff. This is one way we lose skin's youthful elasticity and accelerate aging.

The trace mineral chromium helps stabilize blood sugar levels. This means sugar will be less likely to deposit itself in the skin's collagen matrix leaving your collagen matrix supple.

Good dietary sources of chromium are:

Broccoli, brewer's yeast, barley, oats, green beans, tomatoes, romaine lettuce, and black pepper

SELENIUM

Selenium is both a trace mineral and potent antioxidant. It's a key player in long-term skin health.

Selenium is a cofactor (a substance required for the production of another substance) in the production of another extremely powerful antioxidant—glutathione peroxidase.

Glutathione plays a significant and vital role in protecting cells and tissues from damage caused by mutated cells (free radicals) responsible for aging. Glutathione is known as the master antioxidant of the body.

Selenium is also anti-inflammatory for the body and skin.

Get selenium by eating these foods:

Brazil nuts, shiitake mushrooms, sunflower seeds, whole grains, potatoes, prawns, tuna, oysters and salmon.

SILICA

Silica is imperative for healthy youthful skin. It activates certain enzymes involved in the production of collagen. It

rests inside collagen acting like glue between connective tissues. Silica helps prevent wrinkles, provides a lifting effect, and strengthens and regenerates skin and bone tissues.

A strong carrier of oxygen, silica helps give skin a healthy glow. It does so by assisting red blood cells to carry more oxygen throughout the body thereby improving skin's hydration balance.

These foods also provide lots of dietary silica:

Cucumbers, watermelon, echinacea root, alfalfa, kelp, bell peppers, leeks, green beans, wheatgrass, apples, berries, onions, almonds, sunflower seeds and grapes. You can get silica from the horsetail plant as an excellent source of the mineral.

SULPHUR

Sulphur, the beauty mineral, is one of the most important nutrients for the structure of the skin. It's a key component of proteins and essential for healthy skin.

Deficiency symptoms of sulphur are dry scalp, eczema, rashes and acne.

Get sulphur in these foods:

Eggs, meats, fish, garlic, onions, dairy, beans, greens, dandelion greens, celery, cabbage, kale, soybeans and asparagus.

IODINE

Iodine helps heal skin infections, increases oxygen consumption and skin's metabolic rate. It also helps prevent roughness and premature wrinkling and contributes to skin tone.

Consume iodine by eating sea salt and these plant-based foods:

Blue-green algae, kelp, barley grass, and sunflower seeds.

ZINC

Zinc is a trace mineral, anti-inflammatory and antioxidant that stimulates collagen and elastin synthesis. It's very

beneficial in the alleviation of acne and is naturally photo-protective.

Zinc accelerates wound healing, cell growth and immunity.

Find zinc naturally occurring in:

Pumpkin, seeds, legumes, mushrooms, spinach, shellfish, nuts, grains, kale, and eggs.

PHYTO5's Oligo5 trace mineral spray delivers much needed zinc to skin. If your skin is toxic, blemished or acneic, benefit from zinc in PHYTO5's Earth element Night Cream.

MANGANESE

Manganese is a trace mineral or salt important for everyday skin health. This is because it plays a significant role in collagen production.

Manganese is also involved in the synthesis of vitamin B1. It acts against free radicals and has soothing, calming and protective properties.

Manganese functions like an antioxidant. It works to protect skin against oxygen related damages caused by ultraviolet light exposure.

Manganese is an ingredient in a number of PHYTO5 skincare products:

- Ageless La Cure's [Five Secrets Serum and Cream Duo](#) for a 3-Week Cure
- PHYTO5's Oligo5 trace mineral spray
- [Wood Night Cream](#)

Get manganese in the following foods:

Nuts, beans, legumes, whole grains, green leafy vegetable, pineapple, açai and dark chocolate.

MAGNESIUM

Magnesium is a trace mineral that cleanses skin and detoxifies the epidermis. It's also quite effective in treating

areas of skin prone to allergic reaction. The mineral helps combat acne and skin breakouts.

Magnesium is very effective in reducing wrinkles and fine lines. It works to renew cells and produce energy within the cells. For this reason, people who are tired or overworked benefit from magnesium.

As a cellular protectant, magnesium has many functions:

- actively restores cellular magnesium levels
- facilitates effective and safe detoxification
- provides aches and pain relief and
- encourages healthy skin tissue growth.

Eat avocados, nuts, seeds, whole grains, legumes, tofu, and dark chocolate to get magnesium.

Also get magnesium in PHYTO5's Oligo5 trace mineral spray.

If your skin is slightly more mature, congested, puffy, showing fine lines and lacking minerals, PHYTO5's Metal Night Cream with magnesium might benefit you.

COBALT

Cobalt is essential to health and the human cell.

Cobalt is part of vitamin B12, the vitamin essential for producing red blood cells and maintaining the nervous system.

It's the cobalt ion that allows cells to manufacture B-complex vitamins.

A cellular deficiency of cobalt is linked to pernicious anemia among other blood disorders. Together with sulfur, cobalt helps to maintain and repair the myelin sheath,(1) transport glucose from the blood into the cells, and manufacture/absorb B-complex vitamins.

It's possible to take in small amounts of cobalt such as in a liquid colloidal suspension. Cobalt works to ease inflammation and provides anti-oxidation of free radicals that help counteract symptoms of aging. But too much intake of cobalt can cause enlargement of the thyroid

gland (goiter). It can also reduce the activity of the thyroid. Cobalt may also increase blood sugar levels.

Because of these important cautions, it's best to get cobalt in vitamin B12 rich foods:

Fish, nuts, leafy green vegetables, sun chlorella and cereals.

The human health-supporting properties of dietary cobalt are under-appreciated, say Dr. Michael Glade, clinical nutritionist and Dr. Michael Meguide, professor emeritus of surgery, neuroscience, and nutrition at the Upstate Medical University in Syracuse, New York.

Get the right amount of cobalt to counteract signs of aging by using PHYTO5's Oligo5 trace mineral spray. PHYTO5's Fire element Night Cream (generally for red, irritated sensitive skin) also includes cobalt as a key ingredient.

COPPER

Copper promotes healthy skin, supports healthy cartilage and tendon regeneration, and assists the body to absorb iron.

Copper supports anti-oxidation so necessary for slowing and mitigating signs of aging. It's also required for normal iron metabolism and red blood cell formation.

Copper activates many enzymes, including lysyl oxidase. This enzyme increases elastin and collagen production.

Copper helps replenish supplies of collagen and elastin, ultimately reducing the intensity of wrinkles.

Playing an important role in melanin production, copper is key for retaining hair and skin pigment.

Copper is an important ingredient in PHYTO5's Oligo5 trace mineral spray and in Water element Night Cream.

Get copper by eating these foods:

Beef liver, avocados, buckwheat, olives, sunflower seeds, lentils, almonds, dark chocolate and asparagus.

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Endnotes and sources for this chapter:

(1) Myelin is a lipid-rich (fatty) substance that surrounds nerve cell axons (the nervous system's wires) to insulate them and increase the rate at which information (encoded as electrical impulses) is passed along the axon.

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Naturally Occurring Antioxidant Superstars Will Help You Slow Down Aging

Antioxidants slow the aging process. That's a well-established scientific fact.

Researchers estimate that 80 to 90 percent of all degenerative diseases involve age-accelerating free radical activity.

Antioxidants lessen the damage that free radicals cause in the body.

It's also proven that antioxidants help prevent the onset of disease. Some can even slow or reverse the progress of disease already underway.

It's difficult to overstate the enormous potential of antioxidants we can so easily find in our food.

Many cosmetics companies also formulate antioxidant ingredients into their skincare products. PHYTO5 pays particular attention to formulating antioxidant ingredients in all our skincare. Benefit from natural antioxidants in the

Ageless La Cure, Metal and Water element lines of skincare. Antioxidation is integral to the mission of Ageless La Cure.

What are free radicals?

Free radicals are incomplete unstable molecules. They are waste produced by various chemical reactions in our bodies' cells. When free radicals build up, they harm the cells of the body.

Here's how it works.

Electrons hold molecules together. Normal molecules have pairs of electrons.

When a molecule loses one electron from a pair of electrons, the molecule becomes a free radical. This makes the free radical molecule unbalanced and extremely reactive with other molecules.

Electrons are compelled to be in pairs. So they scavenge the body searching for another electron to pair up with once again.

This action damages cells, proteins and DNA and leads to disease and symptoms of aging.

We generally call this process **oxidative stress**.

Where does the free radical process originate?

The Huntington's Outreach Project for Education at Stanford University says we ingest substances daily that generate free radicals, thus creating oxidative stress.

These damaging substances are found in the food we eat, the medicines we take, the air we breathe and the water we drink. Just a few examples are fried foods, alcohol, tobacco smoke, pesticides and air pollutants.

In the 2010 article, *Methods of Molecular Biology*, researchers report there are no officially recognized symptoms of oxidative stress.

However generally recognized symptoms include:

- fatigue
- headaches
- noise sensitivity
- memory loss and brain fog
- muscle and joint pain
- wrinkles and gray hair
- compromised vision and
- lowered immunity.

What are good sources of natural antioxidants?

There are probably thousands of substances that can act as antioxidants. The most familiar are vitamins C and E, beta-carotene and other related carotenoids. Many minerals also function like antioxidants including selenium and manganese. (See previous chapter.)

The plant-based diet is based on high intake of fruits, vegetables, and other nutrient-rich plant foods. These foods naturally work to reduce risk of oxidative stress-related diseases and aging symptoms.

In what's probably the most comprehensive Antioxidant Food Database published we learn a key fact. Plant-based foods deliver significantly more antioxidants to the body than non-plant-based foods.

A plant-based diet protects against chronic oxidative stress-related diseases. Dietary plants contain variable chemical families and amounts of antioxidants. It has been hypothesized that plant antioxidants may contribute to the beneficial health effects of dietary plants.– Monica Carlsen et al, The Total Antioxidant Content of More than 3100 Foods, Beverages, Spices, Herbs and Supplements Used Worldwide

The study goes on to report:

The results demonstrate that there are several thousand-fold differences in antioxidant content of foods. Spices, herbs and supplements include the most antioxidant rich products in our study, some exceptionally high. Berries, fruits, nuts, chocolate, vegetables and products thereof constitute common foods and beverages with high antioxidant values.

Examples of Natural Antioxidant Superstars

Allium sulphur compounds: leeks, onions, garlic

Anthocyanins:(1) blue and blue-black foods like eggplant, grapes, blueberries, blackberries, forbidden rice, black lentils, black currants.

Beta carotene: pumpkin, mangoes, carrots, apricots, spinach, parsley

Catechins:(2) matcha green tea,(2) other teas, red wine, cocoa, coffee(3)

Copper: beef liver, avocados, buckwheat, olives, sunflower seeds, lentils, almonds, dark chocolate and asparagus

Glutathione is made up of three amino acids: cysteine, glutamic acid, and glycine. It's the master antioxidant of the body.

The human body synthesizes glutathione so it's present in most mammalian tissue.

Glutathione directly scavenges a whole range of oxidants. It also catalytically detoxifies a host of toxins. It protects cells from oxidants by recycling vitamins C and E.

The reduced glutathione supplement has a direct reputation for mitigating symptoms of aging. It also brightens skin when you take it as a supplement to your diet.

Clinical tests have demonstrated the effectiveness of oral glutathione. A Penn State College of Medicine study shows oral supplementation is quite bioavailable while the body is able to store the nutrient.

Hydroxytyrosol is found in olive leaf and olive oil. It just may be the most powerful super-antioxidant discovered to date.

Hydroxytyrosol has an exceptionally high ORAC(4) value of 68,576. It's 15 times higher than that of green tea and three times higher than CoQ10.

Hydroxytyrosol is very bioavailable. Several assays show significant benefits for cardiovascular diseases, cancer, and acquired immunodeficiency syndrome (AIDS).

It's not only a potent antioxidant, it reduces inflammation as a significant anti-inflammatory.

The organic compound **alpha lipoic acid** has gained a great deal of attention as a super anti-aging agent in recent years.

The human body produces alpha lipoic acid naturally but only in small amounts. This is why many older people turn to supplements which pack up to 1,000 times more bioavailable alpha lipoic acid in one capsule than they can naturally get in their daily diet.

Research suggests alpha lipoic acid plays a role in weight loss, diabetes, lowered blood sugar levels, reduced inflammation, improved nerve function and slowed aging of the skin.

Animal products like red meat and organ meats contain alpha lipoic acid. Plant foods like broccoli, tomatoes, spinach, and brussels sprouts also contain fairly good amounts of alpha lipoic acid.

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Endnotes and sources for this chapter:

1) Anthocyanins are blue, violet, or red flavonoid pigments found in plants; from the Greek, *antho* means *flower*; *cyan* means *blue*.

2) Catechins are naturally occurring plant chemicals with well-demonstrated antioxidant activity; the particular catechin concentration in matcha green tea is epigallocatechin gallate (EGCG).

EGCG is proven to reduce melanin secretion and production in melanoma cells.

Together, these results suggest that EGCG might be used as a cosmetic ingredient with positive effects on skin hydration, moisture retention, and wrinkle formation, in addition to radical scavenging activity and reduction of melanin generation. – Eunji Kim et al in *Skin Protective Effect of Epigallocatechin Gallate*. International journal of molecular sciences vol. 19,1 173. 6 Jan. 2018, doi:10.3390/ijms19010173

3) Coffee is a potent source of healthful antioxidants showing more antioxidant activity than the two antioxidants green tea and cocoa. Researchers believe chlorogenic acid, an important antioxidant found almost exclusively in coffee, helps prevent cardiovascular disease. *Note: while green coffee beans have high levels of antioxidants, roasting is necessary to destroy the harmful compound acrylamide present in green coffee beans.*

4) Oxygen Radical Absorbance Capacity defined as the ability to absorb cell-damaging free radicals.

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Keep the Brain Healthy

Of all the diseases associated with aging there's one perhaps more devastating than all the others. It's the decline in cognitive function called dementia and specifically Alzheimer's.(1)

The Mayo Clinic says about Alzheimer's:

While dementia is a general term, Alzheimer's disease is a specific brain disease. It is marked by symptoms of dementia that gradually get worse over time. Alzheimer's disease first affects the part of the brain associated with learning, so early symptoms often include changes in memory, thinking and reasoning skills.

In *What Is Alzheimer's Disease*, The National Institute on Aging tells us how this brain disease was discovered:

Dr. [Alois] Alzheimer noticed changes in the brain tissue of a woman who had died of an unusual mental illness. Her symptoms included memory loss, language problems, and unpredictable behavior. After she died, he examined her brain and found many abnormal clumps (now called amyloid plaques) and tangled bundles of fibers (now called neurofibrillary, or tau, tangles).

These plaques and tangles in the brain are still considered some of the main features of Alzheimer's disease. Another feature is the loss of connections between nerve cells (neurons) in the brain.

Many dread the loss of independence from declining mental capacity even more than they dread declining physical ability.

Without question, our brain is our single greatest asset because our health and vitality actually begin in the brain. The brain is the control tower that directs the operations of our entire body.

Brain health is every bit as important as the health of any other part of the body. All healthcare should take a head-first approach yet it's so often the very last place we look, if at all.

Once the brain begins to deteriorate, there is evidence it can be slowed or halted. A doctor who specializes in holistic healing approaches to cognitive function may be able to help you.

For a long and quality life, zero in on two major focuses for your brain health. The first is to slow the rate of brain cell

death. And the second is to grow new brain cells to replace those that are dying.

Factors leading to loss of brain tissue include the following. Do what you can to reverse these if you have them.

- oxidative stress
- chronic inflammation
- mitochondrial dysfunction(2)
- hormone deficiency/imbalance
- impaired microcirculation to the brain and
- accumulation of toxic protein aggregates (amyloid-beta and tau as mentioned above in the National Institute of Aging quote on Alzheimer's; these build up around the brain's synapses and prevent the vital flow of neurotransmitters).

Omega-3 polyunsaturated fatty acids are critical for brain health. Get your omega-3s.

Nutrition plays a critical role in mental health. This is because the brain relies on both macro- and micronutrients for development and function.

Optimal brain development and function particularly requires omega-3 polyunsaturated fatty acids (n-3 PUFAs). If the brain isn't getting these fatty acids, any of a number of mental health conditions over the lifespan have been proven to occur.

This list includes:

- developmental disorders and mental retardation in childhood
- depression
- bipolar disorder
- schizophrenia and borderline personality disorder
- an unbalanced response to stress

- hostility and aggression in adulthood and
- cognitive decline, dementia and Alzheimer's disease in late adulthood.

Omega-3s are important components of the membranes that surround every cell in the body. Some research shows that people who consume more omega-3s from foods like fish, fish oil, flaxseed and omega-3 specific dietary supplements have a lower risk of developing Alzheimer's disease, dementia, and cognitive function decline.

There are three main types of omega-3 fatty acids:

- alpha-linolenic acid (ALA)
- eicosapentaenoic acid (EPA) and
- docosahexaenoic acid (DHA).

ALA is found mainly in plant oils like flaxseed, soybean, and canola.

DHA and EPA are mainly found in fish and other seafood.

ALA is an essential fatty acid meaning your body can't manufacture it so you need to get it from food.

The body can convert some ALA into EPA and then to DHA but only in very small amounts. So getting EPA and DHA from foods and dietary supplements is the only practical way to increase omega-3 fatty acids in brain and body.

Along with encouraging brain health, omega-3s provide calories the body converts to energy. They have many beneficial functions in the heart, blood vessels, lungs, immune and endocrine systems (the network of hormone-producing glands).

Exercise, especially walking, is vital for brain health.

Walking encourages the brain to release endorphins—a neurochemical that boosts mental health, decreases sensitivity to stress and pain, and sometimes induces a state of euphoria.

Getting the body moving can help lower the incidence of depression while it improves overall cognitive function.

Walking releases the protein Brain-Derived Neurotrophic Factor (BDNF) for healthy neuron survival and cognitive function. *Science Daily* explains that Brain-Derived Neurotrophic Factor (BDNF) is a protein "essential for neuronal development and survival, synaptic plasticity, and cognitive function."

Impaired release of BDNF is associated with neurodegenerative disorders like Alzheimer's Disease.

A January 2018 study found that walking for thirty minutes at a moderate rate increased the production of BDNF in the brains of post-stroke patients. Indications are that walking somewhat briskly may be key to maintaining a healthy brain and mind.

Walking clears up cognitive haze. When one group of people age 55 to 80 were studied, they significantly improved their brains' signaling communication simply by walking regularly.

As we get older, communication pathways within the brain begin to bog down. But in the study, the brains of couch-potato adults who enrolled in a year-long walking program showed significant improvement in cognitive functioning and communication signaling at the end of the study period. –Michael Gollust, ShareCare dot com

Walking increases blood flow to the brain and improves creativity. A 2014 Stanford University study found that walking increased a person's creative output by an average of 60 percent.

We can exercise the brain itself.

We can directly help keep the brain sharp and bright with certain pastimes and exercises.

Even at an older age, **learn to play a musical instrument.** Researchers find that learning to play a musical instrument can enhance verbal memory, spatial reasoning and literacy skills. Musical instruments make you use both sides of your brain and this strengthens memory power. In addition, the fine motor skills you must use to play an instrument stimulate brain activity.

Learn to speak a foreign language or rediscover more advanced mathematics like algebra.

Or seriously apply yourself in using moderately complicated computer software applications.

Whatever your age, **practice Tai Chi.** This martial art is a gentle, low impact ancient Chinese mind-body exercise. It

improves balance, strength, and flexibility and reduces anxiety and adverse responses to stress.

A study published in the Journal of Neuro-Imaging shares that Tai Chi promotes neuroplasticity(5) loosely described as a more resilient brain. It also encourages the two most necessary outcomes of a healthy brain mentioned near the outset of this article:

- Tai Chi helps your brain generate new neurons (brain cells).
- Tai Chi slows the rate of neuron death.

Meditate to increase brain neuroplasticity. A meditation practice also helps create the growth of new neural connections and neurons.

The following study of meditating subjects showed very positive alterations in their brain pattern function. Researchers scientifically assessed these results using functional magnetic resonance imaging (fMRI).

The study found meditation has a very positive impact on mental focus. By measuring alterations in amplitude and synchrony of high frequency oscillations in the brain, the

researchers found that meditation plays an important role in connectivity in the brain's widespread circuitry.

In a recent visit to the United States, the Dalai Lama gave a speech at the Society for Neuroscience's annual meeting in Washington, D.C. Over the past several years, he has helped recruit Tibetan Buddhist monks for and directly encouraged research on the brain and meditation in the Waisman Laboratory for Brain Imaging and Behavior at the University of Wisconsin-Madison. The findings from studies in this unusual sample as well as related research efforts suggest that over the course of meditating for tens of thousands of hours the long-term practitioners had actually altered the structure and function of their brains. – Richard Davidson and Antoine Lutz in *Buddha Brain: Neuroplasticity and Meditation*

Treat your brain like a muscle.

When we don't consistently use any muscle of our body it begins to atrophy. The very same concept applies to the brain.

Neural circuits that aren't actively engaged in executing certain tasks for an extended period of time begin to degrade. If we don't use an area of the brain for a period of

time, we'll lose the function that was previously stored there.

Stay engaged in life.

As we advance in age, we happen to have a whole treasure trove of wisdom and knowledge to share. It's the very time we should be contributing and sharing that knowledge rather than withdrawing from life.

Withholding your gifts, withdrawing and reducing activity leads to atrophy not just of stature and physical health but cognitive function.

Being active physically and mentally, participating in and contributing to life are life and brain health affirming.

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Endnotes and sources for this chapter:

1. Alzheimer's is named after Alois Alzheimer (1864-1915), the German neurologist who first identified it. Alzheimer's disease is a progressive mental deterioration that can occur in middle or old age as a

result of generalized degeneration of the brain. It's the most common cause of premature senility.

2. dysfunction of the organelles (specialized subunits within a cell that have a specific function) that generate energy for the cell. Mitochondria are found in every cell of the human body except red blood cells and convert the energy of food molecules into the ATP (Adenosine triphosphate). ATP is a complex organic chemical that provides energy to drive many processes in living cells, e.g. muscle contraction, nerve impulse propagation, and chemical synthesis that powers most cell functions.
3. DHA levels are especially high in the retina of the eye, the brain, and sperm cells.
4. The hippocampus is composed of the elongated ridges on the floor of each lateral ventricle of the brain, thought to be the center of emotion, memory, and the autonomic nervous system.
5. Neuroplasticity describes the brain changes that occur in response to everyday experience.

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Keep Your Intestinal Flora Balanced

In the human digestive tract lives and thrives an ecosystem of an estimated 100 trillion friendly and unfriendly flora. We call these flora gastrointestinal microbiota or probiotics. *Flora* is the scientific term for a group of bacteria or plant life.

Our intestinal tract is so packed with bacteria that half of the stool isn't leftover food. It's microbial biomass. And just as quickly as they're excreted, the microbiota multiply to replenish their numbers.

You want to have a diverse healthy microbiota. The more species of bacteria in your gut the more able you are to combat sickness, disease and decline.

Internationally recognized educator and thought leader on the microbiome(1) Zach Bush, M. D. tells us:

At the center of human health is the microbiome: 40,000 species of bacteria, 300,000 species of parasite, hundreds of thousands of species of protozoa, three and a half million species of fungi.

All species of bacteria perform a wide variety of tasks and functions. Most of them have not yet been cultivated in a lab and many are yet to be identified.

The intestinal is the largest bacterial ecosystem in the human body. The National Institutes of Health tell us that gut microbes occupy one to three percent of our body mass which is often heavier than an average three-pound brain.

A well maintained inner garden is good for our health, especially brain health.

The microorganisms in the intestines, the bacterial flora, constitute your intestinal garden. And it's a garden that needs to be maintained just like any garden. A well-cared-for inner terrain will make everything the brain needs and will signal that information to the brain.

By adjusting the types of bacteria in the belly, brain health improves as well as many other chronic conditions.

Over a lifespan, if the inner garden is not maintained, our inner bacterial population will slowly shift to encouraging rather than preventing disease.

A flora imbalance may impede the body's ability to detoxify, metabolize calories, and handle insulin production.

Equally so, a flora imbalance can negatively impact brain function and our behavior.

Kelly Burris, Ph. D, in *Depression Anxiety and the Brain in Your Gut: How Thought, Emotion and Behavior Work and How to Get Back to Normal* tells us this:

With over 500 million neurons (brain cells) in the gut and bidirectional communication with the brain via the vagus nerve, gut health must not only be considered in emotional wellness (mental health) but must also be measured.

Researchers find that stress and an inability to adapt to it not only makes us more likely to develop emotional imbalance, it makes the gut more permeable to bad bacteria.

Beneficial flora are good for immunity.

At least 70% of our immune system strength resides in the gut and the makeup of our intestinal bacteria.

Scientists have discovered that our intestinal good and bad bacteria are thrown out of balance when we use antibiotics, consume the Western diet, accept certain medical treatments, and live with obesity.

Intestinal flora imbalance contributes to chronic conditions like autoimmune disorders, metabolic syndrome, diabetes, chronic fatigue syndrome, nonalcoholic fatty liver disease, obesity, and more.

But if we can balance the gut microbiome we're treated to a whole range of health benefits. Studies show it may help lower the occurrence of cancer, strokes and obesity.

The intestinal tract contains more chemical detection and signaling molecules than any other organ. These microbiota offer protection against all kinds of diseases that don't even occur in the intestines.

When in healthy numbers, they diligently work to shield us from diseases associated with aging.

Beneficial flora are good for skin.

Probiotics also help reduce inflammation that can trigger certain skin conditions. Studies show friendly flora are

promising in the treatment of skin conditions like acne, rosacea and eczema.

Some evidence suggests that beneficial bacteria may help to build collagen, the main protein in skin that affects the texture and tone of skin.

These same studies indicate they offer a whole host of benefits for skin:

- better hydration ability of aging skin
- reduced damage from sun exposure
- lessened appearance of fine lines and wrinkles
- restored pH of acidic skin
- oxidative stress alleviation
- attenuation of photoaging (skin damage caused by UVA and UVB exposure)
- improved skin barrier function; and

- enhanced quality of hair.

Epidemiological researchers have recently proven there's a direct link between gut and skin health.

New York City dermatologist Whitney Bowe advocates for a gut-changing diet in her book, *The Beauty of Dirty Skin*.

The diet is primarily based on low-glycemic index foods combined with bacteria-rich fermented ones. It alters and shifts the trillions-strong population of intestinal flora and reduces inflammation including skin-related outbreaks.

Says Justin Sonnenburg, associate professor of microbiology and immunology at Stanford University School of Medicine:

It is certainly true that what happens in the gut isn't confined to the gut... it's part of the integrated system that is you. Your gastrointestinal micro-organisms affect metabolism, immune response, stress. Change something in the gut microbiome—diet is one of the most powerful levers for that—and the effects ripple outward, potentially to the skin.

Skin can be improved from within when the intestines have a good balance of friendly flora.

The best way to support our microflora population is through the foods we consume.

- Eat a diverse diet rich in whole foods.

- Eat plenty of fruits, vegetables, legumes and beans which are the best sources of nutrients for a healthy microbiota. These are all high in fiber which can't be digested by your body but can be digested by certain bacteria in the gut. This stimulates growth of friendly flora. In addition, soil is the first place we indirectly encounter friendly flora through the plant foods we eat so plants are an obvious excellent source of friendly flora.

- Consume fermented foods and beverages. The fermentation process uses microbes such as bacteria and yeast to preserve foods. These beneficial microorganisms eat sugars and can support intestinal health. Fermented foods are shown to provide actions in the body that:
 - work against cancer cells,

 - mitigate obesity,

 - prevent constipation and promote colorectal health

- reduce cholesterol and blocked arteries,
- provide antioxidation and anti-aging action,
- improve brain health,
- fortify the immune system fortification, and
- improve overall skin health.

Fermented foods include:

- yogurt (People who eat a lot of yogurt appear to have more lactobacilli in their intestines and have fewer Enterobacteriaceae, a bacteria associated with inflammation and a number of chronic diseases.)
- kefir (a fermented dairy product similar to yogurt)
- kimchi
- sauerkraut
- pickles

- miso
 - tempeh
 - fermented tofu
 - tamari
 - kombucha
 - apple cider vinegar.
- Consume prebiotic foods. These are foods that promote the growth of beneficial microbes in the small intestine. They are mainly fiber or complex carbs that can't be digested by human cells but can be digested by certain species of bacteria which use them for fuel.
 - Eat whole grains which contain lots of fiber and non-digestible carbs. These carbs are not absorbed in the small intestine. They instead travel to the large intestine where they're broken down by the microbiota. This promotes the growth of certain beneficial bacteria.

- Consume polyphenol-rich foods. These are plant compounds that can't always be digested by human cells and consequently make their way to the colon where they can be digested by intestinal flora.

Examples of health-enriching polyphenol-rich foods include:

- cocoa and dark chocolate
 - red wine
 - green tea
 - almonds
 - onions
 - blueberries
 - broccoli
- A number of studies show artificial sweeteners can negatively affect the gut microbiota. It's smart to remove those from your diet.

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(1) The microbiome is the combined genetic material of the microorganisms in a particular environment.

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Know and Mitigate Your Probable Aging Trajectory by Understanding the Five Phases of Life.

Most people only look at genetic influences, lifestyle and natural cell aging to predict how they might age. But energy medicine, in particular, traditional Chinese medicine (TCM), recognizes additional factors of an energetic nature for insights on aging. When you understand energetic influences specific to you, you can better anticipate the likely trajectory of your aging process.

The Five Phase Theory provides the framework for understanding our natural phases of life.

Traditional Chinese medicine's basic tenet, the Five Element Theory, is also called the Five Phases Theory. There is a distinct reason for this. TCM recognizes that, barring a premature and mortal disease or accident, we move through five phases of life from birth to death.

Each of the five energies or elements of TCM exerts its own particular influence on a corresponding phase of life. The

five phases of traditional Chinese medicine are: [Wood](#), [Fire](#), [Earth](#), [Metal](#) and [Water](#).

The ancient Chinese identified each phase of life as approximately 15 years long. They based this calculation on an average lifespan of seventy five years. But in modern times people are beginning to live much longer. This is why we typically add from three to five years to each phase of life today.

We also consider the energetic effects we experience from January to December of every year.

Each of the year's five energetic seasons corresponds to one of the five elements of traditional Chinese medicine.

The unique energies of each season along with its particular climatic effects also affect us. These effects influence our physical, mental, emotional and spiritual health.

Additionally, the moment of our birth—the hour, day, month and year—also influence our aging process. With specific energies embodied in those moments, they combine to create our individual energetic biorhythm. Every person has one of the five-element biorhythms of Wood, Fire, Earth, Metal or Water.

The Wood element harmonizes with the first phase of life.

The first phase of life begins at birth and lasts until age 15 or slightly older. This is the Wood phase of life.

Youth associates with the energy of Wood. A burst of dynamic sprouting yang energy drives the growth of the body. During this youthful Wood phase, vital energy is very alive and needs to be directed.



Skin is likely to reflect the Wood skin condition during this phase of life. Excessive oiliness, blackheads and out-of-

control vital energy flow describe the Wood condition. Using products from PHYTO5's quantum energetic [Wood line](#) will help balance those conditions.

As we know, children experience intense growth during the Wood phase of life. Still learning and growing, they sometimes lack confidence while they process knowledge about the world and themselves. They also tend to feel frustrated, anxious, restless and angry. It's easy to feel restless considering all the energy surging through their young bodies.

PHYTO5's quantum energetic Wood line of skincare does more than balance oily skin and vital energy flow. It also helps bring emotions to balance. Wood products will help you balance anger, frustration and lack of confidence even as an adult. They'll assist you to have a greater sense of self-confidence and a kinder affect.

If Wood is your dominant energy you have a Wood biorhythm. Wood is your dominating energy. This means you'll likely tend to express some degree of Wood conditions through the rest of your life. Eventually, if you're not a [Wood type](#) you'll grow out of Wood conditions for the most part.

To learn more about the Wood type, read our article, *Describing the Wood Type Personality According to Traditional Chinese Medicine* [here](#).

The Fire element harmonizes with the second phase of life.

The next fifteen-year phase of life from age 15+ to age 30+ is the Fire phase. During this time we become young adults. We continue our natural quest to acquire life skills and build our lives.

In the previous phase, vital energy circulation was dominant. Now it's our red blood circulation that often needs balance and support.



Out of balance blood flow creates hot, sensitive, blotchy allergic skin during this phase of life. Using products from PHYTO5's quantum energetic [Fire line](#) will help balance those skin conditions.

During young adulthood and the Fire phase of life, we're building a life as we prepare to leave our family units. We encounter many stresses as we get educated, trained, find work and build relationships. It's also the time when we discover pleasures of life we couldn't experience as children.

Both stresses and pleasures can knock our emotions out of balance as we strive to find our balance. Now is when we're more likely to experience the extremes of Fire's emotion of joy. We may express the extremes as joylessness or over-the-top expressions of joy.

Joy-in-balance is the balanced emotion of the Fire element and what we should strive for. PHYTO5's quantum energetic [Fire line](#) of skincare does more than balance sensitive skin conditions. It also helps bring emotions to balance. Fire products will help you balance a lack or overabundance of joy. The Fire line helps you achieve just the right expression of joy for joy-in-balance.

If Fire is your dominant energy you have a Fire biorhythm. This means you'll probably experience Fire conditions more than other conditions through the rest of your life.

If you're not a [Fire type](#) chances are high you'll eventually grow out of the Fire skin and emotional conditions.

To learn more about the Fire type, read our article, *Describing the Fire Type Personality According to Traditional Chinese Medicine* [here](#).

The Earth element harmonizes with the third phase of life.

[Earth](#) is the next phase of the more mature adult aged approximately 30+ or older to 45+.

During this phase, we've established families and nurturing family and friend relationships is important to us.



We're busier than ever with family, home, friends and career. Life can be rigorous and demanding and our skin might respond by becoming toxic. Enlarged pores, acne and blemishes may show up in skin because our lymph flow might become sluggish.

Lymph is a colorless fluid containing white blood cells that bathe our tissues. Balanced lymph flow drains waste

through its system of capillaries and vessels into the bloodstream. Less toxic skin means our lymphatic system is flushing toxins. (Read more on this in Chapter 5).

Using products from PHYTO5's quantum energetic [Earth line](#) will help balance toxic skin conditions and support lymph flow.

It's admirable to care for our relationships and others as many of us do during this phase. But we can easily get caught up in over-caretaking. If we try to be all things to all people we start to go into overwhelm. And this emotion will spill into other aspects of our lives. It can keep us from finishing projects and stagnate our creative expression. But these emotions can be brought back to balance.

PHYTO5's quantum energetic Earth line of skincare does more than balance skin conditions. It works on the level of emotion as well. This means that if you feel in over your head overdoing and over-caretaking, the Earth line can help you come back to center. You'll be able to clear out the chaos and finish unfinished projects. Your creativity will bubble to the surface once again and you'll start feeling more free to express it.

If Earth is your dominant energy you have an Earth biorhythm. This means you'll probably experience Earth

conditions more than the other four of the five conditions through the rest of your life.

If you're not an Earth type you'll most probably grow out of the Earth skin and emotional conditions.

To learn more about the Earth type, read our article, *The Earth Type Personality According to Traditional Chinese Medicine: Understanding Your Archetype for Harmony and Balance* [here](#).

It's only a matter of time before we all experience some degree of the elements that mark the most visible phases of the aging process, namely, [Metal](#) in our fifties and [Water](#) in our sixties and beyond.

The Metal element harmonizes with the fourth phase of life.

Metal, the fourth phase of life begins somewhere around age 45+ and lasts to roughly age 60+. Well established adults, we're now better equipped to meet life where it is. We're more able to focus on what's important including a greater awareness of our true self.

We lose important age-mitigating minerals in our skin during the Metal phase of life. We also might start noticing blue blood circulation issues. Typical skin conditions include surface dryness and flakiness, congested dull lifeless skin and more visible veins, particularly on our legs.



Using products from PHYTO5's quantum energetic [Metal line](#) will help balance these skin conditions.

Many people tend to grief and sadness during the Metal phase of life. These negative emotions can be balanced to create a sense of contentment.

In addition to balancing Metal's skin conditions, the quantum energetic Metal line works on the level of emotion. This means that if you're plagued with feelings of grief, regret and sadness, the line will help bring you back to a more even emotional state. It will help you achieve that sense that all is well.

If Metal is your dominant energy you have a Metal biorhythm. This means you'll probably experience Metal conditions more than any of the other five conditions through the rest of your life.

To learn more about the Metal type, read our article, *The Metal Type Personality According to Traditional Chinese Medicine* [here](#).

The Water element harmonizes with the fifth phase of life.

[Water](#), the energy of Winter, is the fifth and last of the five phases of life (after sixty+ years of age). Rich with wisdom from life experience, people in balance with the Water element are more than wise. They're sages.

The Water phase of life influences body shape and skin condition. During this phase, the body's water circulation tends to be out of balance. Dehydration increases and causes loss of skin



tone, collagen and elasticity. Loss of skin tone amplifies the appearance of wrinkles. The body begins to stiffen.

The quantum energetic [Water line](#) can help balance these skin conditions. It also works on the level of emotion.

The out of balance emotion of the Water energy during this phase of life is fear. When this emotion is brought to balance by the products from the Water line, we're more able to face our fears and thus achieve a state of zenitude.

If Water is your dominant energy you have a Water biorhythm. This means you'll probably experience Water conditions more than the other conditions through the rest of your life.

To learn more about the Water type, read our article, *The Water Type Personality According to Traditional Chinese Medicine: Understanding Your Archetype for Harmony and Balance* [here](#).

Many factors determine how we age:

- the energetic influences of our biorhythm according to the time of our birth;

- how we respond to the effect of the yearly and seasonal energies and their climatic effects;
- our lifestyle and how we manage our emotions;
- how we live through each fifteen year+ phase of life.

All these factors influence and affect our health, body shape, skin conditions and emotions.

Your age will show you where you stand on the cycle of the five phases of life. The energies of each phase will point to the symptoms of aging you might be likely to experience as you age.

You can, however, anticipate and even mitigate many likely skin conditions and emotional imbalances. Do this by understanding the energetic influences in your current phase of life and bring them to balance now to your best ability. Then look at the potentials you're likely to experience in the next fifteen+ year cycle. By being proactive now, you can slow and lessen many conditions others endure in advanced phases of life.