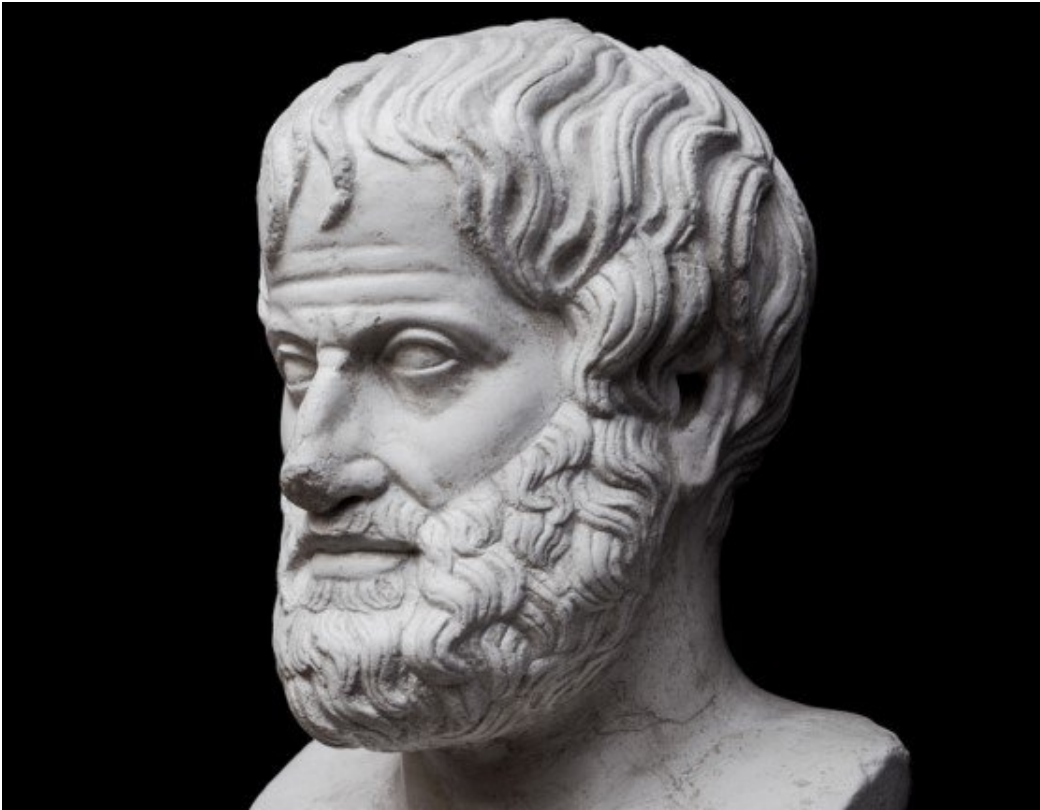


# What is Earthing



**“In all things of Nature there is something of the marvelous.”**

– Aristotle

stress, and fatigue.

Earthing is accessible to all, as simple as walking or sitting barefoot outdoors, and if that isn't an option, you can use indoor grounding products that generate the same benefits conveniently while you sleep, relax, or work.

Earthing represents a health breakthrough, an effortless lifestyle add-on with surprising, and often dramatic, healing results. A simple concept, yes, but a profound one.

As an example, consider the effect of grounding on chronic inflammation, a prime agent of chronic and aging-related disorders, including cardiovascular diseases, diabetes, arthritis, autoimmune disorders, cancer, and even depression and autism. Earthing puts out inflammation and quickly reduces inflammation-related pain!

Beneath your feet lies a most marvelous gift from Nature – the very Earth itself, naturally equipped with extraordinary healing power that may just be the single-most effective medicine available.

Earthing, or grounding as it is often called, connects you to this overlooked natural energy that nurtures and balances your body at the deepest levels, draining it of inflammation, pain,

Earthing restores an essential electric connection to the Earth, lost over time because of the ways we humans live. Many people go through life with pain and weak health precisely because of this disconnection. When reconnected, people feel, sleep, and look better. They are healthier, with less pain and stress.

Earthing is a health and healing reconnection that works for all ages, from babies to seniors. It restores a broken link to an abandoned natural protector – the Earth’s healing touch.

“*When I am grounded I am resetting my entire biological clock so that it is in harmony with universal, cosmic rhythms and that is the basis of healing.*”

– *Deepak Chopra, M.D.*

## Vitamin G – G for ground

You get vitamin D when your body receives energy from the sun above. The Earth gives you energy as well, from below, that contributes to health in a big way.

This energy is based on an unseen and virtually limitless supply of sub-atomic particles called electrons. Constantly replenished and stimulated by the sun, lightning, and the deep-down molten core, they vibrate at different frequencies and give our landmasses and oceans a subtle negative charge.

Some people feel this charge as pleasant tingling or warmth in the feet when walking outside.

Think of it as a kind of electric nutrition, or “natural electricity,” or “vitamin G” as some people call it.

This natural planetary charge keeps the bioelectric machinery of global life humming in rhythm and balance — for everything that lives on the land or in the sea. Both animals and plants. They have a constant electric connection with the Earth.

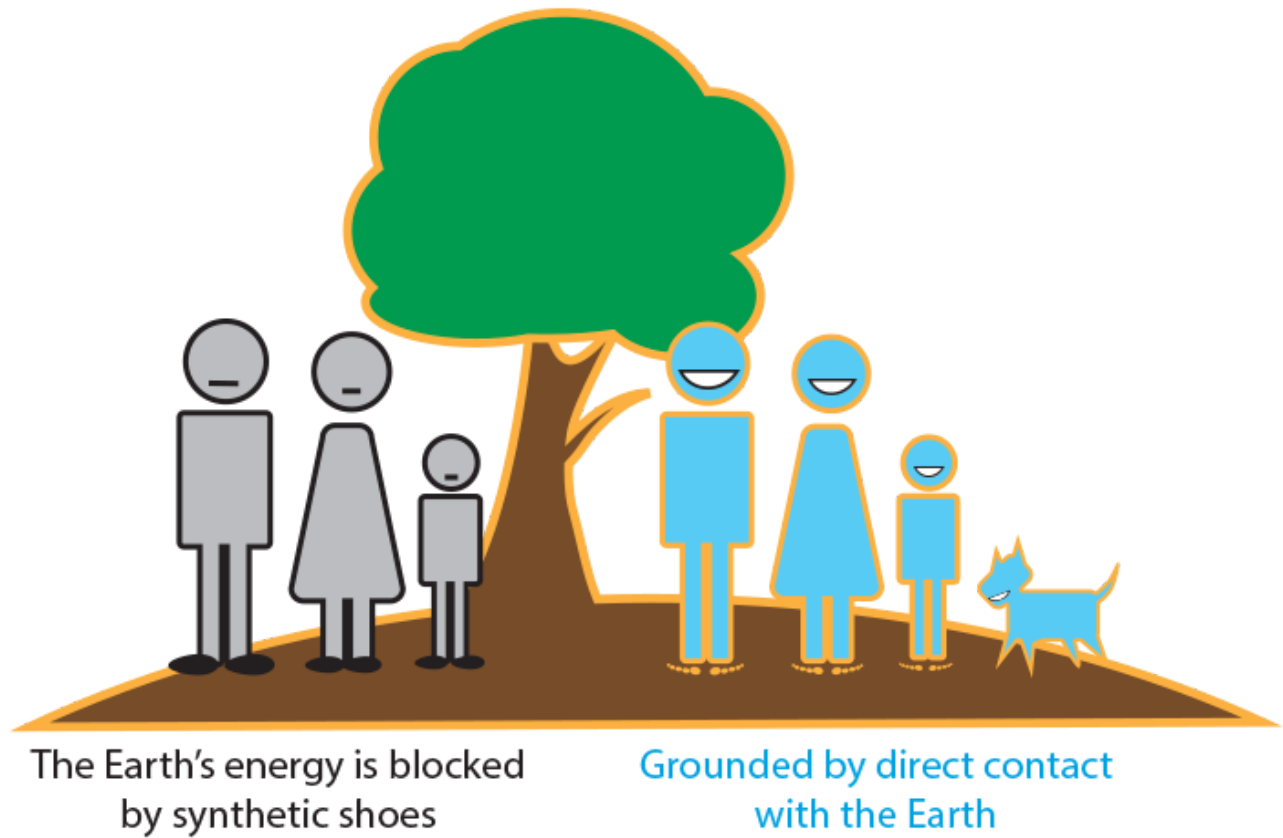
Except for most humans.

## Humans are disconnected: Here’s why

Unlike other creatures in Nature, and your own ancestors, modern human society is disconnected. You get little or no vitamin G.

- Past cultures were connected when they slept on animal hides (leather). Such routine living grounded them. We sleep on elevated beds. Many of us live and work in high rises, well above the ground.

- In past civilizations, humans walked barefoot or with footwear of leather. Today, we generally do not venture out barefoot except as kids romping in the yard, or when we're on holiday at the beach.
- Over the last half-century, shoe manufacturers replaced traditional leather soled shoes that allowed the Earth's energy to pass through and up into the body. Now, 95% of shoes have synthetic soles that block the energy.



Today's generations lack an energy hook-up with our planet. We've lost our electrical roots. We're vitamin G deficient, so to speak. We're not receiving the Earth's built-in energy and signals. This disconnection may very well be precisely a seriously overlooked cause of the global epidemic of chronic illness, pain, and dysfunction.

## Top to bottom benefits

When you are grounded, your body absorbs the Earth's electrons like a sponge. They then move throughout your body, impacting it from top to bottom.

Some 20 years of research, along with repeated "success stories" from people around the world, provides intriguing evidence to support the surprising concept that contact



with the Earth is of great medicinal value. That we need the Earth's electrons for our well-being. That they are foundational for health, representing an indispensable kind of "nutrient" that if deficient or missing can cause health problems just like a deficient vitamin or mineral. [Read the research and published review articles here.](#)

There's a good analogy with the electric systems that power our world – from whole cities down to the appliances you use in your house. These systems are stabilized by the Earth. They are grounded, connected to the Earth. So, too, our bioelectric bodies become stabilized when we are grounded and connected to the Earth.

This is a vital hook-up because our bodies work electrically. Every movement or thought is based on frequencies and electric transmissions in the body. The heart, brain, and immune system are obvious examples. The daily rhythm of chemical and hormonal cycling in the human body is regulated and maintained by faint electromagnetic signals generated by the Earth's electrons. The human body is exquisitely receptive to these signals that set up the rhythm of day-night functions or circadian rhythms.

Earthing studies, using sophisticated laser and thermal imaging, have also demonstrated how grounding, even for just an hour, improves blood flow to the face. The findings suggest enhanced nourishment of facial tissues and functions, and provides a scientific explanation for why many people over the years have told us they look younger and healthier after they start grounding.

Here's a list of some common benefits:

- **Reduces/eliminates chronic inflammation.**
- **Reduces/eliminates pain.**
- **Improves your sleep.** One doctor who has been recommending Earthing to his patients for 10 years said this: "The first feedback I usually hear from a patient who just started Earthing is, 'best sleep I've had in years.'"
- **Improves blood flow to nourish your entire body with vital oxygen and nutrition.**
- **Improves your vitality. You look and feel better.**
- **Decreases stress in the body.**
- **Reduces hormonal and menstrual symptoms.**
- **Reduces muscle tension and headaches.**
- **Accelerates healing from trauma, injuries, and sports/exercise activity.**
- **Protects the body against possibly health-disturbing electromagnetic fields (EMFs).**

Here's a graphic view of improvements:

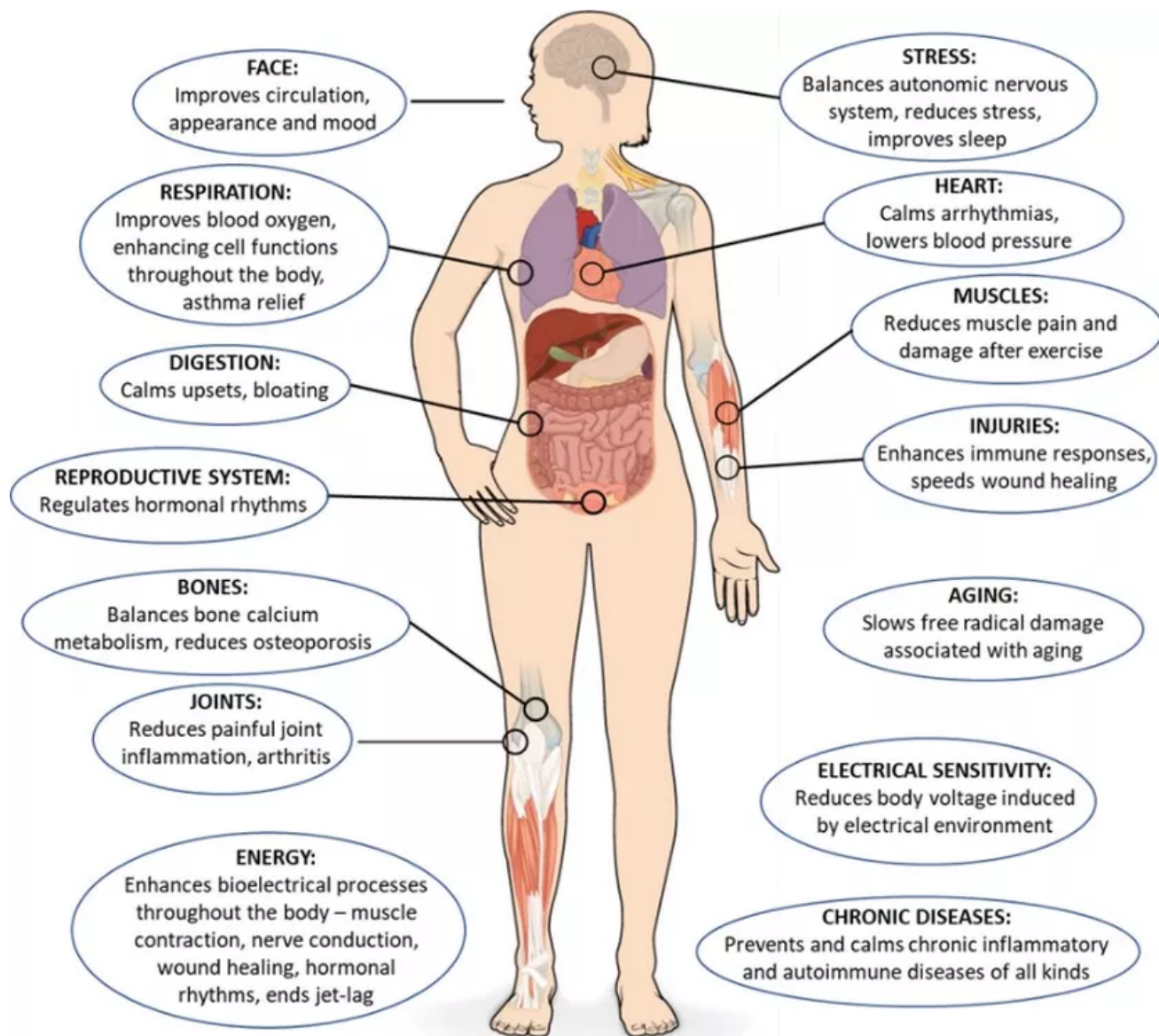


Image courtesy of James Oschman

To read what health professionals have observed, [click here](#).

To read testimonials for a wide variety of conditions, [click here](#).

## A revival of a forgotten law of Nature

Earthing is nothing really new. It's a revival of a timeless practice and a forgotten law of Nature: that we all belong to Nature, and part of the very connection with Nature is our connection with the Earth.

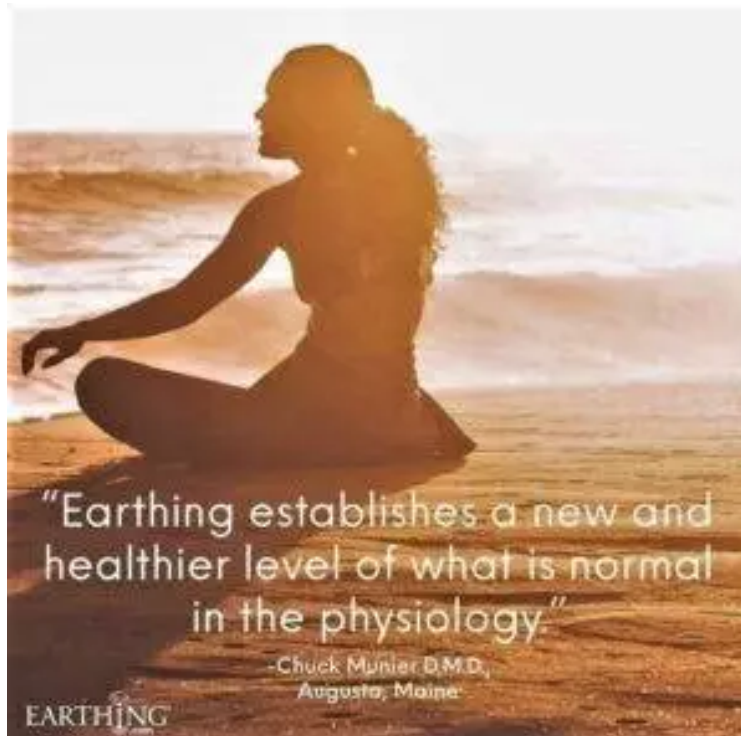
Earthing is among the most natural and safest things you can do.

If you are skeptical, put it to the test by simply sitting, standing, or walking with your bare feet on the ground outside. If you have PMS or arthritic pain or a backache or indigestion or just plain fatigue, or feel highly stressed, note your level of discomfort at the start and then again after about a half-hour or so.

At the end you will feel better. You will realize that there is indeed something marvelous about the ground beneath your feet, something you've been missing all these years.

Marvelous healing power.

In this 5-minute video, Earthing pioneer Clint Ober explains why Earthing is essential for health and healing



# What to expect when you start grounding

- Most people feel better after they start grounding.
- Benefits can come quickly and dramatically, or subtly and gradually. We are all different.
- Some people may not feel any benefits until they increase their grounding time.
- Some people may initially feel temporary tingling, a sign of improved circulation and the body equalizing with the natural energy of the Earth. As the nervous system relaxes, the tingling abates.
- If you have radiant health and sleep well, you may not feel a big difference. Please know that continued grounding serves as a natural form of prevention.
- If you are a fitness buff or athlete, you may notice less muscle soreness and faster recovery.
- Some people experience temporary flu-like symptoms (including malaise, achiness, a foggy mind, tiredness). We relate these responses to the body detoxifying.
- Important tip: Drink plenty of water. Being dehydrated can impair the grounding effect.

For more details, [read the getting started article](#).

## Earthing research summary

Never before in history has there been an accumulation of information related to the surprising healing energy of the planet we live on.

Ongoing scientific research (summarized below) is slowly revealing the dynamics of why people feel significantly better when grounded, and why the benefits are so broad. The numbers shown in brackets refer to the studies (listed below) in which the evidence was found. The studies, along with review articles and commentaries can be accessed in full on our [research page](#).

### Eliminates or substantially reduces inflammation

Chronic inflammation is a causative factor of pain and a causative or aggravating factor of virtually all chronic and aging-related diseases, including cardiovascular diseases, rheumatoid, autoimmune disorders, Alzheimer's, diabetes, and cancer. Earthing reduces or even prevents the cardinal signs of inflammation following injury: redness, heat, swelling, pain, and loss of function.

[Ref: 1, 2, 4, 7, 14, 19](#)

### Eliminates or substantially reduces pain

Most pain, including the most severe, is due to inflammation, and typically responds rapidly to Earthing. Healing-related pain is usually lessened, often significantly, in intensity and duration.

[Ref: 1, 2, 7, 14, 19](#)



## Better sleep

Twelve subjects slept grounded for 8 weeks. Eleven reported that they fell asleep faster. All reported waking fewer times during the night. Better sleep is one of the most common responses from people after they start Earthing.

References: [1](#), [19](#)

## Improves energy

Many people have difficulty waking up in the morning. They have little energy. Studies show that sleeping grounded provides more morning energy as well as vitality throughout the day. In study # 1, 9 (out of 12) subjects reported improvement in fatigue (more refreshed/less fatigued). Better, deeper sleep is one explanation. Another is that the body likely stores electrons in conductive connective tissue. Ungrounded individuals are probably depleted to one degree or another, their store of available electrons continually being drained to neutralize free radicals (molecular fragments produced during metabolic processes) and which cause oxidative damage and disease. Ungrounded, we believe the body becomes gradually “electron deficient,” setting the stage for unwellness. With grounding, the body becomes saturated with electrons. This is how Earthing likely recharges the body’s “electric battery,” counteracts free radical activity, as well as feeds cellular energy production – requiring electrons – that fuels all the biochemical processes in the body.

Ref: [1](#), [8](#), [17](#), [19](#)

## Increases production of melatonin

Melatonin is the most important of the pineal gland hormones. It promotes deep and restful sleep, supports the immune system, slows cell damage and aging, improves energy, and may even inhibit the growth of cancer cell.

Ref: [19](#)

## Normalizes secretion of the stress hormone cortisol

Cortisol is a mediator and marker of the stress response, associated with both psychological and physiological stress, inflammation, and sleep dysfunction. Chronic elevation of cortisol from stress can result in disruption of the body’s circadian rhythms, and contribute to many problems, including sleep disorders, hypertension, cardiovascular disease, decreased bone density, decreased immune response, mood disturbances, autoimmune diseases, and abnormal glucose levels.

Ref: [1](#), [19](#)

## Decreases stress

Both physical stress and psychological stress are aggravating factors for pain and diseases including psychological disorders. Consequently, any natural method for relieving stress has enormous



potential to prevent or decrease the negative effects of most diseases.

In multiple studies, Earthing has been documented to have a significant stress-reducing effect, a result of its systemic impact on the body, including the following:

- a normalizing influence on cortisol, the stress hormone.
- a calming impact on the electrical activity of the brain.
- a normalization of muscle tension.
- a rapid shift from a typically overactive sympathetic nervous system expression, associated with stress, into a parasympathetic, calming mode within the autonomic nervous system (ANS) that regulates heart and respiration rates, digestion, perspiration, urination, and even sexual arousal.
- within the ANS, also an improvement of heart rate variability (HRV) – the minuscule variations in the heart's beat-to-beat interval – that serves as an accurate reflector of stress. Poor HRV is associated with stress-related disorders, cardiovascular disease, diabetes, mental health issues, and reduced lifespan. Grounding improves HRV to a degree far beyond mere relaxation.

Ref: 1, 3, 6, 9, 19

## Improves nervous system function in preemies

Grounding appears to improve the health of premature infants, according to a 2017 experiment published in the journal *Neonatology* by researchers at Pennsylvania State University Children's Hospital in Hershey. They reported immediate and significant improvements in autonomic nervous system function (see # 7 above). Specifically, grounding the babies, clinically stable and from five to sixty days of age, strongly increased measurements of heart rate variability that indicated improved vagus nerve function. The vagus is the main nerve of the parasympathetic nervous system and its branches supply and regulate key organs, including the lungs, heart, and intestines, as well as exerting a powerful influence on inflammatory and stress responses. This was the first Earthing study conducted with babies. For more information, [click here](#).

Ref: 12

## Improves mood

Among 8 female subjects grounded for six weeks, 7 reported improved mood. In another study, 40 participants were randomly divided and either grounded or sham-grounded for 2 hours. Improved mood, according to a questionnaire, was found only for the grounded participants. At a women's wellness conference in 2012, 82 out of the 100 attendees said their mood had improved – by an average of 40% – after grounding during a one-hour lecture.

Ref: 1, 16

## Reduces blood viscosity

Higher blood viscosity (that is, thicker, sludgy blood) often correlates with diabetes and cardiovascular disorders. Two studies were performed to determine the effects of Earthing on blood viscosity. The first involved subjects relaxing for 2 hours with blood viscosity measured using a zeta potential measurement (the greater the zeta potential level, the more spaced the red blood cells are and the lower the blood viscosity). The second study used a commercial blood viscometer to measure viscosity of individuals practicing yoga on a grounded yoga mat. Both studies found that Earthing significantly reduces blood viscosity, thus potentially improving red blood cell spacing (thinning them out). More research is needed, but Earthing appears to be a potent circulation booster, and thus may represent a simple, yet profound preventive and therapeutic strategy against diabetes and cardiovascular disease.

[Ref: 11, 15, 19](#)

## Improves regulation of blood flow in the torso, extremities and face

Facial blood flow regulation clearly improves among grounded – but not sham-grounded – subjects, and even within one hour, as determined in a study utilizing laser imaging technology. An infrared (thermographic) imaging camera study for the same duration also documented improved circulation of fluids (including blood and lymph) and a decrease in intestinal distension (bloating) throughout the abdomen and torso, which in turn translates into enhanced circulation throughout the body, extremities, and head and face. The results of these innovative studies demonstrate that even one-hour contact with the Earth appears to significantly promote blood regulation and circulation, and provides supportive evidence of grounding's effect on blood viscosity (#10). Added together, these are significant systemic findings, affecting overall and local health, such as healthier facial skin.

[Ref: 2, 13, 17](#)

## Improves glucose (blood sugar) regulation

Patients with noninsulin-dependent diabetes mellitus were grounded continuously for over 72 hours resulting in a decreased fasting glucose level. This profoundly important outcome suggests that disconnection with the Earth negatively affects glucose regulation and that grounding may be an overlooked factor in diabetes prevention and treatment.

[Ref: 8, 19](#)

## Prevents calcium and bone density loss, reduces indicators of osteoporosis

Non-medicated subjects were grounded for one night. Blood analyses afterward showed a reduction in blood and urinary calcium and phosphorus, and a reduction in renal excretion of both elements. These findings directly relate to bone density and osteoporosis. Earthing for even only one night may reduce primary indicators of osteoporosis.

[Ref: 8, 19](#)

## Grounds the body's bioelectrical circuits, enhancing efficiency

Your body is a collection of dynamic electric circuits in which trillions of cells constantly transmit and receive energy as they carry out their programmed biochemical reactions. All this activity is regulated by electric fields. From an electric standpoint, both the human body and the Earth's surface are conductors. When two conductors come in contact their respective electric potential (level) equalizes. This is accomplished by sharing electrons. The Earth's surface, being the most negatively charged of the two conductors, gives electrons to the body. Thus, when grounded, a primordial and naturally stabilized electric reference point for all body biological circuits is created. This stabilization is similar to grounding any electronic circuit in order for the circuit to function properly.

Ref: 10, 19, 20

## Increases metabolic rate

Metabolic syndrome refers to the presence of several risk factors – excess abdominal obesity, high triglycerides, blood pressure, and glucose, and low high-density lipoprotein – known to increase the risk of cardiovascular disease and diabetes. These risks factors are often present when a person's metabolic rate decreases substantially and the person starts to gain weight. A study was performed with 28 subjects who were both grounded and sham-grounded in separate 40-minute sessions. Only when they were grounded did the subjects show more efficient processing of energy (a higher basal metabolic rate). In addition, a laboratory study with rats offers support for the findings. Sixty (60) rats were randomly divided into two groups; one group was grounded, the other not grounded. Grounding resulted in a beneficial effect on metabolic syndrome indicators and body weight (lower) after 20 months.

Ref: 5, 6, 8

## Influences thyroid gland function

Blood samples were drawn from 6 male and 6 female adults with no history of thyroid disease. A single night of Earthing produced a significant decrease in tri-iodothyronine (T3) and an increase in free thyroxin (T4) and thyroid-stimulating hormone. The meaning of these results is unclear, other than that grounding affects thyroid metabolism. Over the years we have had feedback from many individuals who were able to reduce their medication for hypothyroidism after starting Earthing.

Ref: 8, 19

## Reduces muscle damage, accelerates recovery from strenuous exercise

Delayed onset muscle soreness (DOMS) is what you experience when you overdo it with exercise. Your overtaxed muscles hurt! You are in pain for a few days. In an experiment, 8 healthy young men

performed weighted toe raises to create significant muscle soreness (DOMS) in both calves. Each participant was exercised individually on a Monday morning and then monitored for the rest of the week while following a similar eating, sleeping, and living schedule. The group was randomly divided – half being grounded and the other half sham-grounded. Comprehensive testing and measurements revealed reduced muscle damage and accelerated recovery from DOMS among the grounded men compared to the non-grounded men. These results were confirmed in a second DOMS study, which also showed a marked decrease in creatine kinase, a biochemical indicator of muscle damage. In yet another confirming study, researchers found that grounding during cycling exercise significantly reduces the level of blood urea, an indicator of muscle and protein breakdown. The findings represent a major recovery benefit for training athletes.

Ref: 7, 14, 18, 19

## Speeds wound healing

An 84-year-old diabetic woman with an 8-month-old unhealed and painful open wound on the left ankle had undergone various treatments at a specialized wound center with no results. After 2 weeks of grounding daily for a half-hour with an Earthing electrode patch, the wound was healed over and the patient reported being completely pain free. Dramatic examples were reported by Chiropractor Jeff Spencer, who was assigned to promote recovery from exertion and injury among American cyclists during several Tour de France competitions. It is well known that at this extreme level of grueling competition, cyclists tend to experience slow wound healing after injury, threatening their ability to continue competing. Dr. Spencer found just the opposite with Earthing, and observed very rapid healing, along with only minimal classical signs of inflammation: heat, redness, swelling, pain, loss of function. Faster-than-normal wound and surgical healing has been frequently reported over the years. Accelerated wound healing, whether involving injury, surgery, or burn, may result from a combination of reduced inflammation as well as improved circulation carrying healing factors to the site.

Ref: 2, 7, 14

## Improves immune system response to trauma and injuries

Significant changes in immune function responses and markers were documented among grounded – and not among non-grounded – subjects in two studies of Earthing on delayed onset muscle soreness (DOMS). Grounded subjects had less pain, little inflammation, and a shorter recovery time. Another study assessed the effect of grounding on the classic immune response following vaccination. Earthing accelerated the immune response, as demonstrated by increases in gamma globulin concentration. These results indicate an association between Earthing and the immune response.

Ref: 7, 8, 14, 18, 19

## Normalizes muscle tension

As we have noted, the body operates electrically. Example: Nerve impulses stimulate muscle fibers to contract. A study using specialized instrumentation (electromyography, EMG) was set up to measure electrical voltage generated by muscle cells in grounded and non-grounded subjects. Muscle tone refers to the state of tension, that is, the degree of constant steady contraction of a given muscle. Tense muscle cells generate high voltage, while those with low tension generates abnormally low levels of voltage. In our study, grounding increased the tension of muscles with low tone and decreased the tension of tensed muscles allowing for more orderly and efficient function.

Ref: 3

## Reduces PMS symptoms and hot flashes

Women have frequently reported improved menstrual and menopausal discomfort. In one study, 5 out of 6 female subjects with PMS or hot flashes described a decrease in symptoms within 6 weeks or less.

Ref: 1

## Shields body against low frequency electromagnetic fields (EMFs)

When the body and the Earth's surface come in contact, their potential equalizes. Since the Earth's surface is the most negatively charged of the 2 conductors, electrons are transferred from the Earth's surface to the body. Maintaining the contact between the 2 conductors results in a constant exchange of low frequency electromagnetic fields and electrons that prevent external electromagnetic field to penetrate the body (this is especially true for external low frequency electromagnetic fields, i.e. less than 100,000 Hz) thus maintaining the internal electrical condition of the body into a homeostatic electrical state stabilizing our body's internal electrical environment. This is the Faraday cage effect.

Some critics have absurdly claimed that it is harmful to ground yourself in the presence of EMFs or that the EMFs will interfere with the grounding process. They say that your body will act as an antenna and draw these EMFs into your body. First of all, there is no such evidence for any of this. Quite to the contrary, the grounding studies have been conducted in homes, offices, and facilities where EMFs were present. Two studies (references 20 and 21) show that grounding significantly reduces voltage induced on the body from EMFs. The first, the Applewhite study from 2005, showed a voltage reduction by a factor of at least 70. The Brown study, conducted in 2015, showed that even being close to a monitor, desk lamp, scanner and wireless phone, the AC current generated though the body of a grounded person from their combined EMF emissions is less than 1,800 the minimum perceptible current (1 milliampere) at a distance of 3 feet and less than 380 times while touching the lamp. Such a current is absolutely negligible. Not one of the 50 subjects who participated in the

study felt anything.

Ref: 10, 19, 20, 21

## Anti-aging effects

The dominant theory of aging emphasizes cumulative damage caused by oxidative stress from free radicals produced during normal metabolism or in response to pollution, poor diet, stress, or injury. We hypothesize an anti-aging effect of grounding based on electron storage enhancement that readily and abundantly delivers anti-oxidant electrons to sites where tissue integrity might be damaged by free radicals.

By scientific standards, Earthing research is in an early stage, but clearly represents a new and exciting frontier of exploration. The research, in fact, indicates that reconnecting to the Earth may be a missing link in the health equation along with good food and water, sunshine, physical activity, and minimizing stress.

Ref: 19

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