



Photograph by Jordan Whitt

The Healing Power of EARTH?

What if there was a free, simple, and easily accessible way to drastically decrease inflammation, improve mood, and restore optimal blood viscosity in a matter of minutes? It just so happens that extensive clinical research has shown that these physiological improvements, in human health, can be achieved by simply putting your bare feet on the earth, *re-grounding* mind, body, and Spirit.

There are millions of humans around the world, who almost never touch the earth with their bare hands and feet anymore. This rather novel phenomenon, arising with the advent of urban lifestyles far removed from the natural world, is surely an alien concept since everything humans need to survive and thrive comes from the earth, water, and skies of planet Earth. Many of us are aware of the

therapeutic benefits of the photons and frequencies emitted by our sun, some 93 million miles away, therefore, it shouldn't be hard to comprehend that our own planet also emanates unique frequencies that positively influence all living things.

The surface of planet Earth is influenced electrically by innumerable lightning strikes, solar radiation, and other atmospheric dynamics on a constant basis. This endows the landmasses and bodies of water with a continuously renewed supply of subatomic particles and gives Earth its naturally negative electrical charge. These forces offer a limitless supply of free electrons imparting their diurnal (circadian) frequencies, supplying a type of electric nutrition for biological life.

These frequencies, akin to a repeating atmospheric heartbeat created by an astonishing 50 lightning strikes per second, were first scientifically measured in the 1960s and coined the "Schumann Resonance" after Winfried Otto Schumann. They consist of extremely low native-frequency electromagnetic resonances (ELF) which connects all life including mineral, crystal, plant, fungal, insect, animal, and human. The Schumann Resonances were found to match the frequency of human brain waves associated with meditation, inner calm, creativity, mindfulness, and deep healing.

Earthing is simply the electrically conductive contact of the human body with the surface of the Earth. This phenomenon is also referred to as *grounding* as the practice restores a primordial connection between humans and Mother Earth that has been lost over time. An overwhelming number of worldwide anecdotal testimonies, especially from diverse indigenous cultures, highlight the profound healing benefits of walking barefoot on the ground, or swimming in lakes, rivers, and ocean, from hugging trees, and laying on beach sand with minimal clothing. This is most likely why people feel so much better after a vacation spent in nature.

For many urban dwellers and office workers getting outside regularly is challenging. Luckily, there are convenient retail devices available for purchase online including grounding mats, bed sheets, wrist and ankle bands, and even adhesive patches that are connected to the Earth by a grounded electrical cord. There are even specially designed footwear with a conductive plug, or grounding material, positioned at specific acupuncture points on the soles of the shoe. Check them out here: <https://www.earthrunners.com/pages/earthing-shoes>

MODERN IMPLICATIONS

Modern lifestyles, houses, and insulating footwear have greatly disconnected our bodies and minds from the bioelectrical frequencies of the natural world. This reality greatly hinders the optimal functioning of our bodies and has created an imbalance, called electron deficiency syndrome. The industrial revolution ushered in the beginning of the electric industry, which recognizes and readily utilizes the safety and stability that *grounding* has to offer. All modern electrical systems, from massive power stations to your kitchen stove, are all connected to the Earth. A lost contact with the grounded Earth creates a build-up of disruptive static electricity (positive charges) overloading the system, and a deficiency of electrons (negative charges) which takes us further away from homeostasis.

The harm to human health continues with the ever-increasing electrification of day-to-day life and has been compounded by the recent introduction of non-native wireless electromagnetic high-frequencies. These nnEMFs are emitted by devices like microwaves, light bulbs, baby monitors, hair dryers, cell phones, tablets, TVs, and laptops confusing the natural electrical impulses of our bodies, exponentially increasing our exposure to ionizing radiation, and disrupting our circadian rhythms (internal sleep/wake cycle). Being disconnected from the natural biorhythms of the Earth has also been implicated in the increased prevalence of seasonal affective disorder (SAD), depression and anxiety disorders, PTSD, chronic pain, sleeplessness, gut dysbiosis, varicose veins, cardiovascular

diseases, respiratory illness, fibromyalgia, PMS, joint disorders, neurodegenerative issues, erectile dysfunction, and bipolar disorder.

THE SCIENCE SO FAR

What are the causes of chronic pain and inflammation? You'd be hard pressed to find any definitive scientific evidence to answer this complex question, however growing epidemiological studies are improving clinical understanding of these incredibly disruptive symptoms. Two Polish doctors, called Sokal and Sokal, performed a series of experiments over the past decade, and concluded that *Earthing* created a "universal regulating factor in Nature" that positively influences the bioelectrical, bioenergetic, and biochemical processes in the human body offering significant modulating effects on chronic illnesses and dysfunction.

The current clinical theorem is that Earthing enables vast amounts of free electrons, absorbed from the Earth's surface, to flood the body. This natural process produces a systemic antioxidant effect while also creating antioxidant microenvironments around injured tissues preventing "smoldering" inflammation which limits healing potential. Another provocative theory suggests that these excited and mobilized electrons enter the body via the low-resistance acupuncture meridian pathways that encourage the easy flow of bioelectrical currents. Still another theory postulates that these electrons travel via the mucous membranes of the respiratory and digestive tracts which are both continuous with the external surface of the skin (these organs are actually inside out!).

In 2004, medical thermal imaging was employed to help provide more clinical data and evidence of Earthing's dramatic impact on pain and inflammation. Sports medicine studies were done on the benefits of Earthing using a research model called DOMS (delayed onset muscular soreness). The researchers studied the

effects of Earthing on micro-traumas in various muscles after several hours of unaccustomed and strenuous exercise. Clear evidence of pain relief and reduced inflammation from Earthing techniques was shown by highlighting the rapid resolution of the inflammatory cascade response and the steadily decreasing numbers of circulating neutrophils and lymphocytes in the blood stream.

Other researchers noted measurable differences in the concentrations of white blood cells, cytokines, and other inflammatory markers (like c-reactive protein) which greatly reduced the collateral damage to the body associated with the oxidative burst, the rapid production and mobilization of reactive oxygen species (ROS) and reactive nitrogen species (RNS) that results from injury or illness. In these studies, Earthing quickly attenuated the chronic inflammation that was not able to be resolved by dietary antioxidants alone. This data suggests that Earth is the original pain-management therapy system available to all life, everywhere, and at all times.

Earthing has also been shown to increase the surface charge on red blood cells reducing clumping and improving blood viscosity. A study conducted in 2013 showed a 270% improvement in the zeta potential of test subjects after just 2 hours of Earthing. Zeta potential relates to the strength of the negative charge on the surface of red blood cells, a factor that maintains the spacing of the cells in the bloodstream. The greater the charge the more these specialized cells can repel each other limiting clumping, or micro-clotting, creating a natural blood thinning effect and reducing the risk of negative cardiovascular events. Being grounded during outdoor cardio exercise, via bare feet or specialized footwear, has also been shown to increase circulation and cardiovascular capacity improving endurance and resilience.

In 2017 a study was conducted on premature infants by doctors at the Pennsylvania State University Children's Hospital Neonatal Intensive Care Unit in Hershey. Earthing the preemies produced immediate and significant improvements in the functioning of the autonomic nervous system (ANS), which

governs the regulation of inflammation and stress responses, as well as heart rate variability (HRV) and vagal tone and transmission. The vagus nerve is the longest nerve of the ANS, controlling involuntary body functions (like heartbeat and digestion), and runs from the brain stem to the heart and into the gut carrying electrical impulses and information. The vagus nerve plays a major role in the *anti-inflammatory reflex*, a mechanism controlling basic immune responses and inflammation during pathogenic invasion and tissue injury.

By shifting the ANS from sympathetic into parasympathetic and increasing heart rate variability, clinical research participants who slept grounded for 8 weeks showed quantifiable improvements in circadian cortisol secretion levels, improved sleeping patterns, and reported decreased body pain and over-all stress.

In 2014 a scientist named Chevalier used a Speckle Contrast Laser camera to show clinical evidence that Earthing also generates a rapid improvement in facial blood flow and enhances the ANS' regulation of peripheral circulation, improving nourishment and repair of facial skin tissues. The beauty industry spends tens of millions of dollars per year, researching and promoting tools, techniques, and surgical procedures with the goal of improving facial microcirculation and reducing the signs of aging. Ironically, it turns out that returning to the Earth naturally improves blood fluidity (zeta potential), has a calming effect on the body, and balances the stress hormone cortisol, decreasing inflammation and the visible signs of premature aging without costly creams or surgery.

WHAT HAVE YOU GOT TO LOSE?

Changing long-standing unhealthy behaviors is challenging, as old habits die hard. The adoption of better dietary habits, regular exercise, and implementing a committed emotional and spiritual practice is an overwhelming undertaking for most. For over a century, self-sabotaging habits have been woven into the fabric

of our lives and even encouraged by our social and cultural environments. Earthing is probably the easiest and most profound change we can implement into our daily lives and has been shown to clinically counteract the sharp increase in non-communicable diseases around the world, which have become a major hurdle blocking the expansion of human consciousness and potential. If used in conjunction with other holistic treatments, Earthing can be used to successfully address the root causes of ill-health that begin at the deep bioelectrical levels of our physiology.

What a shame it is that incredible breakthroughs in the awareness of Mother Nature's brilliant symbiotic connection to all things, as evidenced by a multitude of Earthing studies, isn't common dinner table and water cooler conversation. Humanity has been so deeply programmed to believe that being and staying healthy is a pipe dream. Yet, what if our liberation was as simple as going outside and taking off our shoes for 30 minutes a day instead of accepting a fate that has been engineered by those who seemingly want to keep us small and weak? What better way could there be to celebrate the emergence of Springtime than to dedicate yourself to a daily Earthing practice? You may even become the best possible version of yourself in 2023, regardless of age. See you outside!

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