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Earthing: The Most Important Health Discovery Ever?

by Martin Zucker

The old people came literally to love the soil. They sat on the ground with the feeling of being close to a mothering power. It was good for the skin to touch the Earth, and the old people liked to remove their moccasins and walk with their bare feet on the sacred Earth. The soil was soothing, strengthening, cleansing, and healing.

Ota Kte (Luther Standing Bear),
Lakota Sioux writer, educator,
and tribal leader

Throughout evolution, humans walked barefoot and slept on the ground and received from the Earth a natural, nurturing, and gentle electric energy. You likely have experienced this form of energy yourself some time or another. Maybe while on vacation and walking barefoot on a sandy beach, you felt some tingling or some warmth in your feet. A sense of well-being. That sensation is the ground's electric energy rising up into your body, the result of the skin of your conductive body making contact with the "skin" of the conductive Earth.

Modern lifestyle has increasingly separated humans from this flow of subtle omnipresent surface energy. We wear insulative rubber or plastic soled shoes that block the flow. Obviously, we no longer sleep on the ground as we did in times past.

Research is now revealing that this energy creates a distinct and uplifting shift in the physiology. It promotes health, vitality, and better sleep; harmonizes and stabilizes the body's basic biological rhythms; knocks down (and even knocks out) chronic inflammation; and reduces and eliminates pain. The disconnect from this natural resource right under our

feet may likely be a totally overlooked – and major – factor behind the alarming rise of chronic disease in recent decades, and inflammatory-related conditions in particular.

These revelations are central themes of a new book, *Earthing* (Basic Health Publications), that I have had the privilege to write. My coauthors are Stephen Sinatra, MD, the well-known integrative cardiologist, and

Clint Ober, a most amazing individual who discovered the health benefits of reconnecting to the Earth. [See also Dr. Sinatra's article on page 76.]

Dr. Sinatra describes this discovery as the most exciting health breakthrough that he has encountered in his 30-plus years in medicine. He sees it as a profoundly simple, practical, effective, and cost-cutting way to combat common illnesses

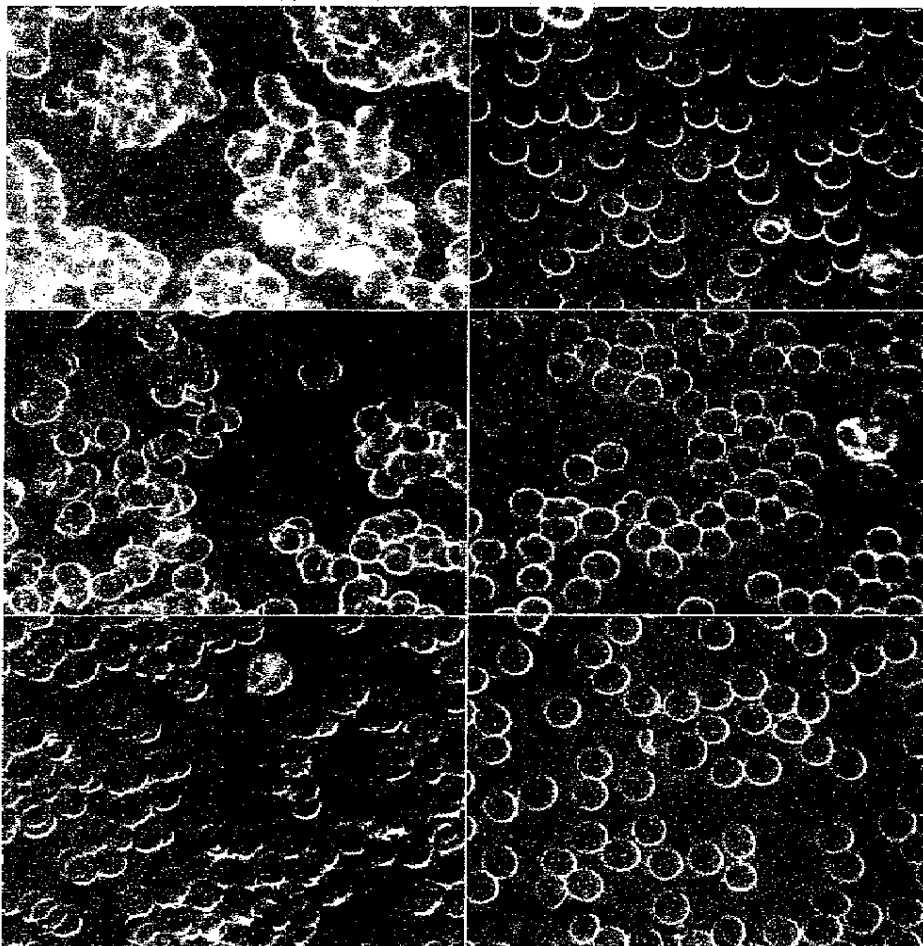


Figure 1. The reproductions above represent darkfield microscope images of blood taken from three individuals in attendance at Dr. Sinatra's house just before and after 40 minutes of grounding. The before images are on the left side, the after on the right. The pictures clearly show a dramatic thinning and decoupling of blood cells.

and pain problems, and make people healthier. In his own field of cardiology, he says it has great promise for improving arrhythmias, blood pressure, blood viscosity and flow, and energy production of heart cells. He recently completed a pilot study of the electrodynamics (zeta potential) of blood which indicates that Earthing improves viscosity and flow. The study was inspired by an informal experiment which he conducted utilizing darkfield microscopy that produced dramatic changes in blood cell aggregation after only 40 minutes of Earthing. The changes are seen in the images in Figure 1:

Here are some of the main points in our book:

- Earthing, or grounding, as we alternatively call it, refers to the discovery of significant health benefits resulting from contact with the Earth's natural surface electric energy. Contact is as simple as walking barefoot outside, or sitting, working, or sleeping indoors connected to conductive devices that transfer the outside ground energy inside to you.
- These indoor devices are connected via a wire to a properly grounded electrical outlet inside homes, offices, and clinics, or to a ground rod outside. They incorporate carbon or silver mesh to conduct the Earth's energy. The devices include special cotton sheets or pads allowing you to sleep "grounded" in your bed; floor or desk pads allowing you to work or relax grounded; and Velcro body bands and standard medical EKG patches, with a grounding connection, applied to body parts to address local pain and inflammation. The patches have been used repeatedly in Earthing research and have excellent potential for use in clinical settings.
- Thousands of people – adults and children – have benefited from these devices for more than a decade. Their experiences, as documented in the book, are

extraordinary. Victorious American-sponsored cycling teams at recent Tour de France competitions used Earthing "sleeping bags" to recover dramatically faster than normal from injuries and grueling competition.

- We all live and function electrically on an electrical planet. We are each of us a collection of dynamic electrical circuits. In the living matrix of our complex bodies, trillions of cells constantly transmit and receive energy in the course of their programmed biochemical reactions. The movement of nutrients and water into the cells is regulated by electric fields, and each type of cell has a frequency range in which it operates. Your heart, brain, nervous system, muscles, and immune system are prime examples of electrical subsystems operating within your "bioelectrical" body. The fact is, all of your movements, behaviors, and actions are energized by electricity. Earthing research demonstrates that connection to the Earth initiates an immediate electrophysiological shift inside your body indicative of improved blood, nervous system, immune system, and muscular function (see sidebar, page 54, for a research summary).

- In electricity, all electrical systems are "grounded"; that is, stabilized by the electrical energy of the Earth's surface. Without a ground, appliances or sophisticated medical devices would not work properly. Similarly, when connected to the Earth, the body receives an electric signal that normalizes and stabilizes its many biological systems and mechanisms. This signal also appears to be the source of negatively charged free electrons, present in unlimited quantity on the surface of the Earth. The hypothesis put forward by scientists involved in Earthing research is that the transfer of electrons into the body quenches or neutralizes positively charged, electron-seeking free radicals that drive chronic inflammation activity at the core of many common diseases. We suggest that the mightiest anti-inflammatory on the planet may be the very planet itself! We further suggest that destructive chronic inflammation may be the result of an electron deficiency that is remedied by contact with the Earth's infinite reservoir of free electrons. ➤

The Benefits of Earthing

For more than ten years, Earthing research and feedback from individuals who have grounded themselves, primarily while sleeping at night, demonstrate a multitude of benefits. Here is a short list of them:

- improvement or elimination of the symptoms of many inflammation-related disorders
- reduction or elimination of chronic pain
- better sleep and faster to sleep
- increased energy
- lowered stress, more calmness by cooling down the nervous system and stress hormones
- normalization of the body's biological rhythms
- thinner blood, improved blood pressure and flow
- muscle tension and headache relief
- lessened hormonal and menstrual symptoms
- dramatically faster healing and reduction/prevention of bedsores
- reduction/elimination of jet lag
- protection against potentially health-disturbing environmental electromagnetic fields (EMFs)
- accelerated recovery from intense athletic activity

Earthing

- Just as sunlight provides us with vitamin D, the Earth provides us with another essential ingredient. Call it vitamin G: G for *ground*. We regard it as an overlooked factor in disease causation – a missing link. Gary Schwartz, PhD, a professor of psychology and medicine at the University of Arizona, suggests that “Earthing may be as fundamental as sunlight, air, water, and nutrients.”

Earthing's Fascinating Discovery

Throughout the history of civilization, cultures around the world honored connectedness to the Earth and described the energy of the Earth in different ways. Some may be familiar to you, such as Earth Qi in Traditional Chinese Medicine and Prana in Ayurveda.

Until now, however, the distinct health benefits of this energy have remained largely unknown. Thanks to the curiosity and persistence of Clint Ober, a pioneer of the cable TV

industry, the benefits are surfacing. At one point, Ober headed the largest cable TV installation company in the US. In 1993, at the age of 49, at the height of success, he became deathly ill – the result of an abscess that nearly destroyed his liver. Ober recovered from the ordeal and decided to shed his possessions and look for a higher purpose in life. He traveled throughout the US for four years in an RV, looking for, as he put it, “my mission.” He found it one day in Sedona, Arizona, on a park bench, while watching the passing tourist parade. He became aware that almost everybody wore synthetic soled shoes. He wondered if such footwear, which had increasingly replaced leather since the 1960s, could have an effect on health.

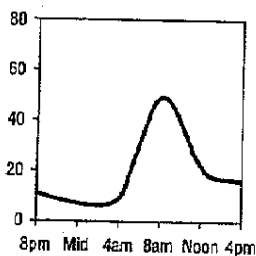
It occurred to him rather innocently that he and most everyone else around him were insulated from the electrical surface charge of the Earth. His thoughts went back to his years in television and cable. Before cable, you may remember, TV images were commonly afflicted with flecks, “snow,” or disturbing lines from electromagnetic interference. In the cable industry, systems in every home are grounded and shielded to prevent outside signals and fields from interfering with the transmission carried through the cable. The cable consists of an inner copper conductor, an insulating layer, and an outer shield. The shield is electrically connected to the Earth – to a ground rod. This is the principle of grounding – connecting electrical systems in homes, buildings, and industry to the Earth's energy field in order to provide electrical stability and protect them from errant electrical charges.

Could this energy field also protect the body from ubiquitous environmental electrical charges (EMFs) thought by many to be an insidious health hazard? Could it provide stability to the body? These were questions that Ober raised. He knew that the body is conductive; that is, it conducts electricity. So he performed a simple experiment

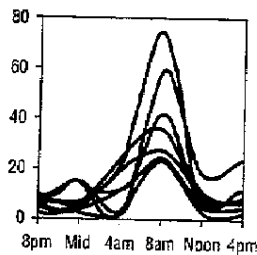
Earthing Research

The studies to date on Earthing provide proof of concept for the Earth's surface energy having significant physiological and health benefits. They include the following:

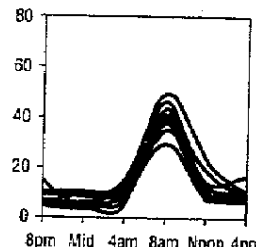
Sleeping grounded normalizes cortisol level and improves sleep. Ghaly M, Teplitz D. *J Alt Comp Med*. 2004;10(5):767–776.



A



B



C

Cortisol Levels Before and After Grounding

In unstressed individuals, the normal 24-hour cortisol secretion profile follows a predictable pattern – lowest around 12 midnight and highest at 8 a.m. (Graph A). The pre-grounding chart (Graph B) shows wide variation of patterns among 12 Earthing study participants. Graph C represents altered pattern after six weeks of Earthing, showing a significant stabilization of cortisol levels. (Data adapted from the *Journal of Alternative and Complementary Medicine*, 2004.)

Applewhite R. Electrons move from the Earth to the body when the body is grounded and grounding powerfully reduces EMFs on the body. *Euro Biol Bioelectromag*. 2005;1:23–40.

Chevalier G et al. Earthing produces unique electrical function in brain and muscles. *Euro Biol Bioelectromag*. 2006;600–621.

Chevalier G et al. “Expressways” of electron transfer from the Earth into the body run through highly conductive water-control meridians (involving K-1 and UB). *Subtle Energy & Energy Med*. 2007;18(3):11–34.

Chevalier G. Electrophysiological measurements indicating more efficient cardiovascular, respiratory, and nervous system function. *J Alt Comp Med*. 2010;16(1):81–87.

Brown R et al. Less inflammation, faster recovery from exercise-induced delayed onset muscle soreness. *J Alt Comp Med*. March 2010.

Preliminary results from in progress animal study show significant improvement of biochemical factors associated with metabolic syndrome in humans.

For a scientific description of electron transfer in the body, see Oschman JL. Can electrons act as antioxidants? a review and commentary. *J Alt Comp Med* 2007;13(9):955–967.

For additional information, refer to *Earthing* (the book) and visit the website www.earthinginstitute.net.

Earthing

on himself. He rigged up a crude conductive grid to fit on his bed. He took an alligator clip and attached it to the grid, connected a wire to it, ran the wire out the window, and fastened it to a ground rod outside. He then lay down on the grid and measured the voltage on his body. He found that when he was "grounded," the EMFs on his body had disappeared. The voltage of his body was near zero, the same as the voltage, or potential in electrical terms, as the surface of the Earth. The next thing Ober knew, it was morning. He had fallen asleep and slept soundly for the first time in years – and without a pill. This was a big deal for him. He suffered with constant back pain and disturbed sleep. He took painkillers to sleep at night and again in the morning to get through the day.

He repeated the experiment every night for a week. Same results. Moreover, he noticed that his pain had decreased significantly. He then decided to tell some friends about his little experiment. They asked if he would make them a grid for their beds. He did. They had similar results: better sleep and less pain.

Ober contacted university sleep researchers looking for an explanation. Nobody knew anything about this. Nobody was interested. So he decided to find out himself. Armed with tips he received from friendly undergraduate research students, he set off, a nonscientist, on a scientific odyssey. Twelve years later, he is still at it. He has inspired and brilliantly organized a dozen studies with scientific experts that have thoroughly validated his initial personal observations of better sleep and reduced pain. They clearly show that Earthing has a powerful influence on the delicate balance between health and illness, and the prospect of living longer and better. During this time, he continually developed and refined indoor Earthing systems for use in studies and to make available to interested individuals. He found that after someone experiences less pain and better sleep from sleeping

grounded, they want all their relatives and friends to experience the same thing.

Earthing Triggers Physiological Normalization

For me, the concept of reconnecting to the Earth has revealed one of Nature's great healing secrets. On a personal note, I experienced an immediate cessation of annoying restless legs syndrome when I started sleeping grounded two years ago. I sleep grounded now whether I am at home or traveling. Over time, the also annoying need to get up at night to pee, typical of men my age (72), has substantially abated. Some nights I get up once. Others not at all. A couple of my friends have had the same results.

My wife has less pain from substantial musculoskeletal issues as a result of sleeping grounded and using grounded EKG patches during the day. One woman who transcribes for me wanted a conductive bedsheet after hearing and transcribing some of the interviews of doctors and patients that I did for the book. After she started sleeping grounded, she told me that she was "absolutely amazed." Not a single flare-up of her fibromyalgia pain.

To quickly experience Earthing yourself, just walk or sit barefoot on grass, sand, gravel, or unpainted concrete – ground surfaces that conduct energy. Wood, asphalt, and plastic do not conduct. Stay for at least a half hour or so and at the end of that

time you will notice you are calmer, and if you had pain to begin with, it will be less, or maybe even gone.

Biophysicist James Oschman, PhD, a leading expert and author on energy medicine, sums up Earthing this way: "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."

Please read the book to learn the full story, the research details, and the dramatic feedback from doctors and patients. There is much in the book that will interest sophisticated, open-minded practitioners and health-oriented readers of this publication. You will be amazed, as I was, by the primordial power and promise of this concept.

Martin Zucker has written or coauthored fifteen books, including *Earthing, Move Yourself* (Wiley), *Reverse Heart Disease Now* (Wiley), and *Natural Hormone Balance for Women* (Atria/Pocket Books). He is a former Associated Press newsman.