The Case for Earthing: Is The Science Legit?

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The simplest well-being habit with emerging research

I’ve been thinking about this a lot lately, and what strikes me most is how strange it feels to even consider it. Walking barefoot. On purpose. I grew up in the country, running around local creeks with bare feet and not thinking twice about it. Now it’s something I have to consciously remember to do every now and again, like it’s a wellness practice instead of just… life. Many of us walk barefoot at the beach without a second thought. But when was the last time you felt grass on your bare feet? Or dirt?

That disconnect, between something so natural and how foreign it now feels, is part of what makes the emerging research on Earthing worth paying attention to. Direct contact with the Earth’s surface may be one of the most overlooked wellness habits for modern longevity. And the science, while still early, is getting more interesting.

What Is Earthing?

Earthing (or grounding) is direct physical contact between your body and the Earth’s surface: grass, sand, soil, or water. The current thinking is that because your body is an electrical system, reconnecting with the Earth’s natural electric charge may influence markers of inflammation, stress, and autonomic nervous system function.

There are also grounding “tools” like conductive mats or sheets that claim to transfer the Earth’s electrons to the body. And here’s something worth knowing: most of the controlled research on earthing has actually been conducted using these indoor devices, because it’s easier to design a blinded study with a mat (you can create a sham version that looks identical) than with bare feet on grass. That’s a gap worth

noting. The simplest and most ancient version of earthing, skin on ground, is also the least studied in a formal setting. A **2023 integrative review** published in *Bioelectromagnetics* flagged this directly, noting that "there is little in the way of detailed research investigating the effects of directly grounding the body."

That said, here's what the research says.

Barefoot Grounding: What We Know

Only one published study has specifically measured the effects of direct barefoot contact with the ground. A **2015 trial of prehypertensive adults** had 28 subjects sit barefoot with their feet on the earth for one hour, compared with 25 controls who sat in shoes under the same conditions. The barefoot group showed significant decreases in systolic, diastolic, and mean blood pressure. No changes were observed in the shoe-wearing group.

Researchers also note that the quality of the connection matters: moist or damp ground **conducts electrons more effectively** than dry surfaces, which means walking barefoot on wet morning grass or damp soil may offer a stronger electrical connection than dry sand or pavement.

It's a single study with a modest sample size. But it's direct evidence that bare skin on the Earth produces measurable physiological changes, and it's the closest the research gets to what most of us would actually do.

What the Mat-Based Research Shows

The larger body of earthing research uses indoor grounding equipment, conductive mats, patches, or sheets connected to a ground rod or electrical outlet. The mechanism is the same (electron transfer), and these studies offer more controlled conditions.

Here are four findings that stood out:

1. Improved Sleep Quality

A 2025 randomized, double-blind, placebo-controlled study from **Kyung Hee University** assigned 60 peolple to sleep on either a grounding mat or an identical sham mat for 31 days. The grounded group showed significant improvements in insomnia severity, daytime sleepiness, and total sleep time measured by wearable trackers. A separate 2022 **double-blind trial** from Chang Gung Memorial Hospital in Taiwan found that 12 weeks of grounding significantly improved sleep quality in patients with mild Alzheimer's disease. An earlier, smaller pilot study (only 12 people) also found normalized cortisol rhythms in grounded sleepers, though that study lacked a control group. Taken together, sleep is the area where Earthing research is most interesting, tho still emergent.

2. Less Inflammation and Pain

A review of studies published in the ***Journal of Environmental and Public Health*** included a small study found that Earthing reduced inflammation and accelerated recovery after physical strain. They used medical thermal imaging and delayed-onset muscle soreness (DOMS) trials. A 2015 randomized, double-blind pilot study using thermal imaging also showed improved circulation and reduced inflammation markers after just one hour of grounding versus sham grounding. The findings are intriguing, but sample sizes remain small and independent replication is still needed.

3. Better Blood Flow and Thinner Blood

A small study involving **10 people** found that grounding reduced blood viscosity, a cardiovascular risk factor, improved red blood cell spacing, and enhanced overall circulation. The study, published in the *Journal of Alternative and Complementary Medicine*, offers potential cardiovascular implications, though it has not yet been replicated at a larger scale.

4. Increased Vagal Tone and Stress Resilience

Researchers at Penn State Children's Hospital **measured heart rate variability** in 26 preterm infants in the NICU before, during, and after electrical grounding via a small patch electrode. Vagal tone, a key marker of autonomic nervous system health, increased by 67% during grounding and returned to baseline when the connection was removed. The study also found that grounding reduced skin voltage induced by surrounding NICU equipment by 95%. While the sample was small, the immediate and reversible nature of the effect, and the fact that it was conducted by neonatologists at a major academic medical center, make this one of the more compelling findings in the Earthing literature.

What to Know About Earthing Research

The research picture is more promising than it was a few years ago. The 2025 sleep study is the first well-designed RCT with a meaningful sample size, and the Penn State infant study brings institutional credibility that earlier work lacked.

That said, most studies still have relatively small sample sizes, and the field would benefit from more independent replication. It's also worth noting that several prominent researchers in this space, including the lead author of the most-cited review papers, have disclosed affiliations with companies that manufacture grounding products. This doesn't invalidate the findings, but it's context worth holding as the field matures.

Think of Earthing as a low-risk wellness habit with emerging potential, not a medical treatment.

Want to Try Earthing?

Here's how to start:

- Walk barefoot on natural surfaces (grass, sand, or dirt) for 10–20 minutes a day
- Sit or stretch out on grass or sand
- Use a grounding mat while you work, relax, or sleep indoors (Try the **Hooga Grounding Mat**)

We talk a lot about advanced wellness tools, **wearables**, **blood tests,** and cellular upgrades, but sometimes, simple interventions can cause the greatest shifts: in our habits, our mindset, and our well-being. Grounding may not be a magic bullet, but it's a zero-cost, low-effort way to restore balance in a world filled with static.

Try it: Step outside barefoot for 10 minutes a day. See how you feel. Write and let us know!

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