

Ben Greenfield's

# 10

## Little-Known Biohacks For Outdoor Enthusiasts





Whether foraging for wild plants with my twin 10 year old sons, gardening with my wife Jessa, walking up and down the farm roads near our house, or running through my homemade obstacle course in the backyard forest, I go out of my way to tap into the benefits of nature immersion that science has repeatedly proven to be integral for our health, our nervous system, our mood and even - as evidenced by the outdoor habits of many of the so-called Blue Zones - our lifespan and longevity.

As a self-proclaimed biohacker, I've also spent countless hours over the span of my adult life learning, researching and experimenting with "better living through science" in the form of technology and tactics to get the most out of human biology and to reap even more benefits out of my natural lifestyle.

In other words, I do my best to combine ancestral living and modern scientific biohacking to get the absolute most out of every second I spend outside. And with the 10 simple tips you're about to discover, you too can learn how something like a simple stroll in the woods, with minimal effort, could become much more than a stroll in the woods.

## 1. Take Off Your Sunglasses

The first two tips I'll reveal are so minimal that all they require is for you to simply stop doing something you're probably currently doing.

Let's begin with your eyes. Something you'll almost never see me wearing unless it's a harshly lit day of snowboard or skiing, or a long, windy day on a boat, are sunglasses. Why? Because your body, from your skin to your eyeballs, is a remarkable machine and very well-equipped to deal with sunlight on its own.

Here's why this is important: your eyes register the sunlight's brightness and adjust your pupil size to protect your vision and the optical processing centers in your brain. Sunlight also stimulates your pituitary glands, via the optic nerve, to produce a [hormone that triggers the melanocytes in your skin to produce more melanin](#), which allows you to tan and offers good protection from excess UV radiation.

But sunglasses interrupt all this goodness, disrupting light signaling for your circadian rhythm and protective melanin production - resulting in less tanning and a higher risk of a carcinogenic and uncomfortable sunburn.

If the whole point of getting outdoors is to escape the accouterments of civilization, why bring an unnecessary piece of civilization and put it smack dab in the middle of your face, between you and a full visual immersion into Mother Nature?

## 2. Take Your Shoes Off

Part of the reason that outdoor adventures are so good for us is that we get away from all the electromagnetic confusion that humanity generates. Electric and electronic devices. Wi-fi fields. Cell phone towers. Cell phones that we so often hold next to our precious brains.

Avoiding this kind of post-industrial biological badness is a smart strategy. But connecting directly to goodness is even better.

The Earth carries magnetism - it emits a natural magnetic field. Even minerals in dirt carry magnetism. Plants and animals use this electromagnetism in ways we don't even fully understand yet, but it appears to be beneficial for everything from bird and bee migration to circadian rhythms and sleep in mammals.

So this next tip is also quite simple. At least once per day, take off your shoes and socks and walk around barefoot in nature - on dirt, on grass, the forest floor, etc. In particular, if you do this just after getting off an airplane, it will help your body to



recover from the electromagnetic shock that you just put it through and orient your body rhythm to the new and different place that you've abruptly arrived in.

This concept is called "Earthing" or "Grounding" It may sound a tad "woo-woo", but it has some serious [proven positive effects on physiology and health](#) such as reduced inflammation, wound healing, and prevention and treatment of chronic inflammatory and autoimmune diseases. Perhaps one of my favorite benefits of grounding is the effect it has on sleep. Connecting with the earth's magnetic frequency has [been shown to lower cortisol](#), pain and stress and - you guessed it - improve overall sleep quality.

To learn more, I highly recommend you watch the documentary "[Grounded](#)" which features a group of people who actually bury themselves in the earth to fix things like arthritis, musculoskeletal pain and even heal diseases.

Now, I know what you're thinking... "I live in the city! What about "No shoes, no shirts, no service?" Not to mention glass shards and sharp rocks on the ground!" Not to worry - this is where earthing and grounding shoes or sandals come in. Look into brands such as "Earthrunners" or "Pluggz". Grounding footwear has built-in tiny copper plugs that penetrate the sole of the shoe and directly "ground" you to ions and magnetism the earth emits.

### 3. Ketones

If you're out on a long, relatively aerobic adventure, I'm a big fan of ketosis (a state of fat and ketone burning via limitations of sugars/starches in favor of fasting/fats) and even ketones (supplements/powders/liquids you can consume to enhance ketosis) to fuel your body. This can be a healthy, non-gut fermenting source of energy that allows you to go for hours on end with minimal fuel, and is something I first began to utilize when racing Ironman triathlons nearly six years ago. By cutting a large amount of carbohydrates and sugar out of your diet, eating plenty of vegetables for vitamins, nutrients and minerals and consuming natural sources of fat such as coconut oil, avocados, extra virgin olive oil, olives, seeds, nuts, fatty cuts of fish, etc. you can also tap into the benefits of ketosis.

So rather than fueling your outdoor adventures with carbohydrate-laden energy bars and trail mixes, opt instead for foods such as macadamia nuts, almonds, chia seeds, bone broth from an insulated bottle, sardines and other non-traditional but highly beneficial forms of stable energy, along with experimentation with new-fangled supplements such as ketone salts and ketone esters.

Don't get me wrong - your goal shouldn't be to suddenly to completely cut carbs. Heck, as the designer of a [clean energy bar](#) that uses natural ingredients such as cacao and honey to provide trace amounts of healthy sugar to support intense energetic bouts or long hikes, it wouldn't make sense for me to tell everyone to "go carb free". But you should indeed consider foregoing the pre-bike ride stack of pancakes, the pre-race pasta feed or the during hike energy gel packets in favor of lower-sugar, higher-fat options, which are like a slow-burning log compared to fast-burning kindling. As a result, you'll last longer and be stronger for your outdoor adventures or competitions.

### 4. Minerals In Your Water

On an outdoor adventure, you're using your muscles more than usual - which means you're using minerals too. Salt is one crucial mineral for your body to stay in balance, but there are many others, including calcium, magnesium, potassium and phosphorus.

Because it comes from different sources and because different water utilities treat water differently before they get it to you, tap water can highly vary in its mineral content, and the same goes for bottled water too. Filtered water, while pure, can be the worst for getting adequate minerals, as filtration can take whatever minerals are left in your water right out, leaving you with a bunch of water that dilutes your internal systems, but doesn't give you the minerals you need to charge the human body (which is essentially one giant electrochemically driven battery).

So add trace liquid minerals, pinches of sea salt, mineral drops, mineral packets,



etc. to your water frequently. When buying bottled water, opt for brands with high amounts of minerals, such as Pellegrino or Gerolsteiner (be sure to get the glass bottles, as plastics are notorious for creating endocrine disruption and exposing you to synthetic estrogens).

## 5. Mustard Packets For Cramps

In my first long Spartan race, as I clambered upside down [monkey style across the Tyrolean Traverse](#), I was forced to grip the rope hard with my calves and hamstrings – an activity I’m not really accustomed to since I had never in my life climbed upside down on a rope before. And about halfway across the rope, my right calf cramped hard and I went flailing off the rope and into the water below.

But here’s the thing: research has shown that if your cramp is not due to dehydration (e.g. you’re doing a good job drinking water and/or taking minerals), and is instead simply a muscle going into a protective spasm due to the use of muscles you’re just not accustomed to using, the taste of something salty can instantly reverse that cramp. The most popular [research study on cramping used pickle juice](#).

But if there are no pickle trees nearby on your next race or hike, you can do the next best thing: rip open a mustard packet, hot sauce packet or even break open an electrolyte capsule and dump it into your mouth. The instant salty, spicy or bitter taste can cause a motor neuron reflex that instantly reverses a cramp. Boom. One salty gag reflex and my cramp in the Spartan race was gone. Handy tip, eh? Best of all, both hot sauce packets or mustard packets are free at just about every roadside gas station - usually next to the hot dogs.

## 6. Breathhold Walks

Simultaneous retention of carbon dioxide and oxygen is one of the best things you can do for your physiology (read the book “The Oxygen Advantage” to geek out on this even more), and holding your breath during a hike or walk is a great way to achieve this effect. Breathhold walks are a habit of freedivers, spearfishermen and yours truly.

Here’s how: several afternoons each week, I duck out from writing and working in my home office, and scramble up a steep hill through the forest to an old farm road that travels a mile out and a mile back. The road is dotted with telephone poles spaced approximately 100 yards apart. Every time I pass a telephone pole, I take one long, deep belly breath then hold for as long as possible. Then, once I’ve run out of breath, rather than gasping for air – which every muscle in my body wants desperately to do – I instead breathe only through my nose. After a brief 20 to 30 minute walk like this, I feel as I’ve been in deep meditation for hours. This type of walk can be performed in a park, airport, treadmill or anywhere else you want to combine movement and breathwork.

Just promise me you won’t pass out on the side of the road!

## 7. Strike/Stroll/Shiver - My 1-2-3 Fat Loss Combo

I’m a fan of staying lean and optimizing your “strength:power” ratio, and my patented (OK, maybe not) 1-2-3 fat loss combo is one of the biggest fat-loss game changers I’ve ever invented and utilized. I do the following strategy nearly 365 days a year, and once you make it a morning habit, it becomes as automatic as clockwork.

Step 1: Strike, as in hunger strike, or don’t eat anything. For an added fat-burning bonus, prior to Step 2, consume a cup or two of coffee (I’m partial to organic, high-antioxidant [Kion Coffee](#)) or green tea, which can help to mobilize fatty acids and spark your metabolic rate. But it has to be plain-jane coffee or tea – no sugar, no cream, no MCT oil, no funky butters – you get the idea.

Step 2: Stroll, as in go out for a walk. This is where your outdoor adventure comes in. Do a simple 10-40 minute fasted aerobic session, a walk in the sunshine (bonus: morning Vitamin D and circadian rhythm alignment!), an easy yoga session, taking the dog for a stroll or riding your bike. Basically, anything that’s light, easy, aerobic,



conversational and low-stress that won't cause a big release of cortisol and isn't going to completely exhaust you for the day. This is going to allow your body to tap into its own fat as fuel. This means that you will preferably not have eaten anything for at least 12 hours, and ideally up to 16 hours.

Step 3: Shiver! Dive straight into 2-5 minutes of anything cold, a cold jump in a river or lake, a hot-cold contrast shower, a cold bath. This step will not only help to burn white adipose tissue off your belly, but also convert it into metabolically active [brown adipose tissue, which will increase your fat-burning capacity](#).

Go ahead, give it a try. You can nearly watch the fat melt off your waistline.

## 8. Nasal Breathing

Did you know that [nitric oxide \(NO\) is formed and released in your sinuses?](#) From there, it is carried into your lungs where it works all sorts of magic. Think of NO as “Viagra for your entire body” – significantly dilating the blood vessels and bronchial tubes and allowing them to carry more oxygen into your muscles. This means you're slower to get tired and cramp – and quicker to grow into additional muscle tissue.

NO also acts as an antibacterial agent that helps neutralize germs and bacteria. The simple act of engaging in deep nasal breathing, and even training yourself how to nasal breathe during exercise, is not only a fantastic method to increase NO availability, but also to filter and warm the precious air you're taking in.

Breathing through your nose, simple as it may seem, isn't so simple for most people. To help reverse a mouth-breathing habit, try the Control-Pause Technique (CP): First, rest for 10 minutes before measuring. To begin, simply breathe through your nose. After an ordinary exhalation through your nose (not a full, deep exhalation), squeeze the tip of your nose with your fingers and look at a stopwatch. If you experience even the slightest inclination to breathe, let go. Your CP is the amount of time between your hold and inclination to breathe. My first CP was 17 seconds, and via practicing nasal breathing I am now up to 41 seconds and still improving.

## 9. Sunlight On Your Balls

[Sunlight exposure directly to the testes](#) has been shown to boost production of Leydig cells (the cells that produce testosterone). You definitely want to be careful with this one as too much exposure to sunlight, particularly to sensitive areas such as your balls, can be damaging.

Fellas, I'll leave figuring out how to incorporate this hack into your outdoor adventure up to you. But the basic idea is simple: go out and get some sunlight on your balls (I achieve this by wandering around my backyard nude while making phone calls, a pleasant visual for anyone reading this who talks to me on the phone in the future). And ladies, trust me: the potent near and far infrared rays from the sun are great for collagen, skin tightness and overall skin health too.

The great outdoors is one of the few places where you may – (may being the key word) – find it relatively easy to let it all hang out. Try this one at your own risk, folks. I bear no responsibility for upset, or possibly aroused, passersby, and recommend you try as much as possible to make this a practice at your own private campsite or in your backyard.

## 10. Sauna Post-Workout To Build Blood Volume

We all know what blood doping is, right? As a Tour De France cyclist could likely elegantly explain to you in great detail, it essentially involves taking some of your blood out of your body, usually under medical supervision, and storing it via freezing or some other preservation method. You then wait a few days or weeks for your body to regenerate more blood, which replaces the blood you took out. Then – once again, under medical supervision – you take the stored blood and put it back in. Whammo! You have

lots of extra hemoglobin to carry oxygen to your muscles.

Problem is, this type of blood doping is also illegal in any sanctioned sport and perhaps even more concerning, turns your blood into thick sludge and puts you at risk for a heart attack due to cardiovascular strain.

But you can get the [same effects of blood doping by simply hopping in the sauna](#) after your outdoor adventure for about 30 minutes. The sauna is a mild form of heat stress which causes your [plasma volume to go up](#), and can do so to an even greater extent when your body is already warm post-workout. This means more hemoglobin, just like blood doping, but without the risks.

Simply take a 20-40 minute sauna after your outdoor adventure or any other workout. The ideal temperature ranges anywhere from 140-180 F, depending on the sauna you use and how accustomed to heat your body is.

## Summary

So there you have it, 10 little-known but simple biohacks to get the most out of your next outdoor adventure. In a nutshell, your body is a remarkable machine and sometimes you just have to let it work and interact with nature the way it was designed to. But this doesn't mean there's any harm in using modern science to enhance the benefits Mother Nature provides. So rip off those sunglasses, and maybe your pants too, grab a handful of nuts (no, not those nuts), hold your breath, stow away a mustard packet, and get outside.

Oh and for even more biohacking tips, cutting-edge health and fitness advice, and a complete line of supplements made from the purest ingredients hand-selected by yours truly just go to [GetKion.com](https://getkion.com).



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