

Biohacking with PEMF

Biohackers always have a belief in experience-based learning, or in simpler words – they don't believe in something unless they try it.

Here is a challenge for you: READ THIS ARTICLE FAST.

The keynote speaker and learning expert, Jim Kwik, asked the audience to remember FAST learning.

Forget: Forget your presumptions.

Active: Read enthusiastically and participate in the practice/demos.

State: Feel the excitement and curiosity to learn. Sit up, lean forward.

Teach: Read as though you must teach this to others.

He teaches these tricks in his accelerated learning classes. You have a challenge to apply these techniques while reading this article.

Are you ready to dive in this article?

Alright, let's go!

When Biohackers Get Together

"It is always like a Disneyland for adults."

The 2014 Bulletproof Biohacking Conference felt like a health-focused amusement park of the future with the hyperbaric chambers, the oxygen bar, the three huge flow-state inducing swings, the nutrient injection stations, the neurofeedback booths, the Bulletproof Coffee bar, and the ARX Fit workout machines.

The conference was attended by mobility expert Kelly Starrett, nutrition expert JJ Virgin, flow-state expert Steven Kotler, brain expert Dr. Daniel Amen, memory expert Jim Kwik, and other health leaders.

It all comes down to the 7 actionable biohacks that everyone must perform – movement, rewilding, music, nutrition, flow, gratitude, and awareness.

What is Biohacking?

The name 'biohacking' may sound crazy, but it's not! Basically, it is the desire to be the best version of ourselves.

You may be thinking – what sets apart a biohacker than others? Well, it is a system-thinking approach to our own biology that a biohacker follows.

We all know that coffee works like an energy booster for our brain.

Before coffee, you are sleepy and lazy.

After coffee, you are wide awake!

The only difference is the coffee in your stomach.

Here is the lesson: What you feed your body has a significant effect on how you feel.

We all know this. What we eat and drink is one way we alter our state.

Music is another. If you put on smooth jazz, you'll feel different than if you blast T-T-T-TECHNO.

Whatever we put in our ears and stomach are inputs into our biology.

Human beings having complicated mechanisms. In other words, what we put inside of our bodies affect what comes out of us. That includes our physical health, our mental state, and our overall behavior in each area of our lives.

If we desire to have better results – let's just say like to be free of disease, to have more energy and focus, to perform optimally in athletics and business, to have a better memory – then we need to tweak the things we put in our body and mind to stack the deck in our favor.

The tools of the Quantified Self are used by biohackers for measuring these inputs and outputs, and to experimentally test the effect of different tweaks.

It's always about learning things from own experience.

So, here we go!

1. Gut Punch Your Posture

Everyone agrees that sitting for long periods is exhausting. It makes our muscles sore and reduces our potential.

Tip 1: This is an easy yet effective trick - spend ten minutes foam rolling everyday.

Tip 2: Maintain a neutral spine position.

He had everyone follow a sequence to stabilize their spine. Try this with me now.

- Squeeze your butt.
- Breathe out and pull your ribcage down.
- Engage your abs 20%.
- Place your head in a nonaligned position, ears aligned with shoulders.

The whole sequence can be performed while standing. Just twist your feet into the ground (like a screw) to add more stability.

Unfortunately, this posture is really hard to maintain while sitting.

Sitting cross-legged or in a butt-to-ground squat in your chair is a more stable sitting position. You might look silly in that position, but it's be helpful.

Another game is smack people in their stomach if they are not engaged with their abs. A couple of gut-smacks and you will know everything about your posture.

2. Eat the Right Nutrition

Nutrition was a popular topic at the conference.

The founder of the Bulletproof brand, Dave Asprey, outlined the new Diet for a biohack living. He suggests to eat...

- A lot of vegetables are covered in grass-fed butter.
- Pastured eggs, grass-fed beef, and low-mercury fish (such as wild sockeye salmon)
- Lots of fruits and moderate starches

Try to cook lightly.

JJ Virgin showed how sugar is associated to almost every common disease. It's also MORE addictive than morphine.

The most impactful biohack is the one with no sugar at all.

Dr. Tom O'Bryan talked about the gut-brain connection. Despite having a food sensitivity, you still eat that food – you most likely experience inflammation which makes our brains dumber.

Make sure you know your food sensitivities, and then avoid those foods.

3. Rewild Yourself with Nature

Most people are unaware of the fact that every dog is a descendent of the Gray Wolf?

Yes, that cute puppy with blue eyes...he's a wolf. Now don't be scared! His great-great-great-great-great grandfather would be eating you for dinner.

In an interesting conversation, Daniel Vitalis showed how we, as modern humans, are no different than that puppy.

We have domesticated ourselves and made it taboo to think otherwise. We are not as fit, resilient, or adaptable and much more prone to chronic disease than our ancestors.

If domestication is the problem, then re-wilding is the solution. Daniel outlined four systems for re-wilding our natural nutrition.

Eat Living, Wild Foods

People eat living (or once-living) stuff for food, like most animals — broccoli once cut from its head, chicken leg amputated from its body, mushrooms plucked from the forest, sauerkraut coated in tiny microbes.

We need these wild foods.

If you want to be a real wolf, go outside and forage these foods yourself.

Drink Unprocessed Spring Water

Everything we drink is as important as what we eat, but most of us don't realize that our water is just as refined as the food we now think we can avoid.

Most water has extracted minerals and added chemicals. Find a natural spring, and load it up instead.

Otherwise, drinking water filtered by glass would be safer than drinking water from the tap.

Breathe Air from Nature

Do you think nutritionally about the air you breathe?

As you might expect, the clean air in our homes is more rejuvenating than the moldy air. Go outdoors.

Another tip: Get more oxygen by taking deep breaths through the diaphragm to absorb oxygen most effectively.

4. More Exposure to Sunlight

Sunlight is part of our natural diet, so expose your skin to those warm sun rays.

It's time for a reconstruction.

Open your eyes, and see this little puppy you are. Go back to nature, to become the wolf.

Start with just spending some more time outdoors.

Go Outside

Yet it's dangerous outside, and dark!

Spartan races founder Joe De Sena tells Spartan Up and switches the frame of reference. Men long ago had low standards and a high degree of tolerance. Today we have strong standards and very little tolerance.

My grandfather arrived in the US with no money, no family and no plan. He was glad to be alive.

Low expectations, high tolerance.

Someone on my flight to LA complained loudly that the Wi-Fi was not working. "Life is all boring!"

High expectations, low tolerance.

So, how can you change your reference frame?

Make Yourself Uncomfortable

- Take a cold shower
- Attempt a Spartan race
- Contemplate death. Read Marcus Aurelius or Seneca.
- Be homeless for a while?

Meditate

We need to become aware of our attention to change where we are directing our attention. Therefore, we can actively construct our ideal inner states, attitudes, emotions, circumstances, and meaning.

Meditation is the tried and tested path to an enhanced consciousness.

There are advanced meditation methods, like neurofeedback and 40 Years of Zen, but meditation is always free and accessible. Start on meditation.

Tim Ferriss has a general rule about meditation: the less time you think you need to meditate, the more time you need to meditate.

5.Listen to Music, Change Your Brain

Here's my personal secret to focus on hacking:

Place headphones on. Spotify opened. Conduct rock instrumental, or electronic music.

The world around me disappears when that's on and I may get lost in my work.

It is important to understand how the brain works at a high level, to dig deeper into the audio as a biohack.

There are 100 billion neurons in your brain that use electricity to talk to each other. At any given moment, millions of neurons talk at once, creating a lot of electrical activity. When an EEG measures this activity, the result is a wavelike pattern called a brainwave.

The frequency of this brainwave depends on what you are doing.

Brainwaves 101:

- Beta (14–30 Hz): awake, concentrated, alert. We spend most of the day here.
- Alpha (8–14 Hz): awake but relaxed, meditative state, improved memory, twilight state between sleep and waking.
- Theta (4–8 Hz): light dreaming, access to the unconscious mind.
- Delta (0.1–4 Hz): restorative, deep dreamless sleep, complete loss of awareness.

A steady sound wave has been proven to alter the brainwaves in a method called Frequency Following Response.

His work found in Bill Harris' talk about dramatically raising consciousness that audio entrainment helps meditators build awareness 8 times faster than conventional meditation.

Binaural beats are one example of brainwave audio induction.

6. Hack Flow

The elusive "flow condition" was a theme of this year's conference. When we feel and perform at our best, flow is that optimal state of consciousness. Time is slowing down; you are losing yourself and you are working at a higher level than ever.

You know those times, in other words, when you kick an ass and nothing can stop you? It is flow.

The author of *Rise of Superman*, Steven Kotler, realized that the only athletes who consistently enter that state are action and adventure. As he notes, as their sport sometimes positions them in circumstances of life or death, it is either "flow or die"

Research by Kotler identified 17 triggers for flow-in.

He discovered that flow is cyclical, too.

You have to undergo a struggle before you flow in. This is the Process of Learning. In this process, the brain is displaying beta waves (awake, concentrated).

You must then release it entirely. This is when your subconscious can do its magic — consolidate and relax the details. Your brain displays alpha waves (relaxed and active state).

Then there is flow. Theta waves (attainment of unconscious mind)

Finally, you are entering a phase of recovery. Delta waves (deep restorative, dreamless sleep).

If you're struggling to get something done, just drive yourself a little longer. Then stop doing something entirely different, like foam rolling in the park. The release is a crucial phase to flow in.

7. Show Gratitude

Interactive demo! Try this.

Think about this sentence and then pause and notice how you feel.

"Ugh, this guy has wasted the last 12 minutes of my life. I've learned nothing and this demo he is asking me to do is bullsh*t."

... hmmm ok ...

Now try this one.

“I’m grateful for this opportunity to expand my worldview. I am practicing my ability to read information and filter what is meaningful to me.”

Here is one more:

“I am highly obliged that this author injected caffeine into his veins, and put all the important details into once precise article. I am grateful to be learning something new today and am giddy to apply one of these techniques in my daily life. EVERYTHING IS AWESOME!!”

Wait, why weren’t you already thinking that?!?

If you weren’t, you should watch this

You get the point though: We can think about the same experience in many different ways. If we are grateful, we positively change our perspective on the events in our lives.

UJ Ramdas presented gratitude as a biohack and offered four techniques to start your daily gratitude practice.

Five Minute Journal

The journal UJ established. Discuss three morning questions and two before bed. Put you in the right mood to start your day and finish it. (Here is the link).

Gratitude Journal

At the simplest, write down just 3 things you're grateful for every night. Pro tip: If you want email reminders, set up a Google form (there's a template) and use IFTTT to email that link to yourself (if it's 10 pm then email me the link).

Gratitude Visit

Write a letter of love and gratitude (300 words) to someone who is important to you. Set a time for them to meet, then take the letter out and read it to them. UJ says that is highly transformative.

Gratitude Walk

UJ suggests that you do so on your way to working. Be very present and feel thankful for all you see and experience during that short walk. Try to sense in your heart the gratitude.

Gratitude is a daily practice that resembles meditation. As in meditation, over time it becomes more natural. In fact, as with peanut butter and jelly, gratitude and meditation go very well together. (PB&J is not Bulletproof to those who ask.)

Recall: What you put in your body determines what you get out of it. In this case, the world you experience is created by your thoughts. If you put gratitude in, you get gratitude out.

Types of Biohacking:

There are several types of biohacking, such as:

- Cryotherapy
- Ozone sauna
- PEMF

But the most effective one is PEMF:

Why Biohacking with PEMF?

Biohacking Longevity therapy with PEMF is no longer a mystery. We have been on the hunt for the fountain of youth from the very beginning of mankind as well as remaining alive for longer.

Anti-aging or biohacking longevity is possible with **Pulsed Electromagnetic Field (PEMF) therapy**, and why it is easy to see. PEMF meets all the basic longevity criteria for attaining and biohacking.

Epigenetic Longevity Biohacking with PEMF Therapy

Genes were attributed to longevity and senior health. For example, Japan is frequently home to the oldest people on earth.

Now, if you happen to be from such a family, that's great news, but what if you're not or your world has changed relative to your origins? That's when you need to spend effort upgrading your DNA to slow down and even reverse aging.

NASA's 2002 research into PEMF therapy shows that **PEMF therapy** has more genetic advantages, particularly useful for senior health and longevity. Pulse Electromagnetic

Field Therapy reverses the process of cellular aging by regulating down 175 maturity and regulatory genes, and by upregulating around 150 growth-enabling genes.

When it comes to senior health, it's no wonder PEMF has also been quite successful.

And now, it is 2020 – thousands of scientists have carried out in-depth research, and we have many more frequencies for PEMF treatment and numerous effective PEMF products available today to combat several, if not all, health issues related to aging.

Bone Health Longevity with PEMFs

Having poor bone quality is the most common age-related health problems among senior citizens.

NASA again published research in 2010, and patented a PEMF device for "Modifying the genetic regulation of bone and cartilage cells and associated tissue through EMF stimulation fields and their uses." Within this NASA PEMF patent, the researcher Thomas Goodwin states that over 2000 genes are regulated with effective PEMFs.

Over a hundred independent research by different scientists demonstrates once again the benefits of PEMF to tissue and bone health. Conditions such as [arthritis](#) and [osteoporosis](#) have been shown to benefit from the application of PEMF therapy.

Enhanced Oxygen Metabolism with PEMF Therapy for Longevity

Since ancient times optimum oxygen metabolism has been linked to longevity. In India, a practice known as Pranayama is involved in the yogic lifestyle. Specific breathing techniques are used to slow down respiration as well as boost the breathing range. Combine this with a sedentary, quiet lifestyle in the mountains, nearer to the ground and the magnetic fields of the earth, we see long-lasting historical accounts, reaching up to 200 years by such practitioners.

We can see that the secret to biohacking tissue and bone health longevity is to ensure improved oxygen consumption within the cells of the body.

Pulsed electromagnetic fields will reach the entire body at sufficient frequencies and amplitude, and enhance the use of oxygen. That is the main reason why PEMF works better than any other treatment with electrotherapy.

Hormone Regulation with PEMF Therapy

Hormonal regulation is an essential part of health and longevity. Traditional methods of balancing hormones typically involve consuming compounds based on their chemical composition, up-regulate or down-regulate a particular hormone. Although this technique works, it also goes wrong, and tracking the doses needed daily is very difficult. Such approaches can also operate on the symptoms, not be a permanent cure, and often cause severe side effects. Hormone-related issues have been truly problematic for women in many cases and often lead to fatal outcomes including but not limited to [Cancer](#).

It is pertinent to notice how so connected everything is. As well as regular use of PEMF devices, deep respiration also results in hormonal balance. The best thing is, there's no need to track levels and doses. All of that functions autonomously.

It doesn't matter if it's the thyroid or endocrine system⁴, low strength, low frequency, and long-term use of PEMF tools help to regulate both hormones. Many people record disappearances of hormone-related issues entirely with PEMFs, in some cases years after they took medications to obtain relief.

To others, pain is also a hormonal problem, and PEMF has proven once again that it not only [aids in pain relief](#) but also addresses the underlying conditions. PEMF therapy is, as we can see, one full program for seniors and biohackers of longevity alike. If the goal is to remain young or to become young, PEMF therapy now expands all possibilities to all.

Looking for the Best Biohacking Tool?

If you are looking for **PEMF devices** for biohacking, then the Sentient Element is the platform to rely on. The *Sentient Element* offers one of the most powerful, best and affordable PEMF devices on the market that help you choose from long, low-intensity sessions to short, deep penetrating high-intensity sessions.