



A Beginner's Guide to Biohacking

10 SUPER BIOHACKS!

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Welcome to the Beginner's Guide to Biohacking!

You are about to meet the 10 super biohacks that you can start today to upgrade your life and completely change how you feel. Whether you are new to biohacking or a seasoned veteran, we are so glad you have joined us. Get ready to learn, grow, and evolve into the best version of you!

Let's start with a definition of biohacking from Dave Asprey, founder of Bulletproof and father of biohacking.

BIOHACKING: “the art and science of changing the environment around you and inside of you so that you have full control of your own biology”

It's worth a second read! It's incredibly powerful.

If you can hack your biology and change the things that you want to change, you'll be able to better reach your goals and be an all-around higher-performing individual.

Most people are living lives that reflect a small fraction of their potential. They're just getting by. They feel okay. Their energy is okay. But they aren't feeling vital. They don't feel fulfilled. They aren't thriving!

Biohackers are committed to looking, feeling and being their best.

They dedicate time and energy to learning how to have full control of their biology.

And most importantly, they get clear about what they want to change, and why—they define the parameters by which they will measure success and they take **ACTION**.



TRACK AND HACK

Biohackers track what they do and its measurable impact. We call this **quantification**.

An important aspect of biohacking is systematically collecting accurate, meaningful data and using that data to make decisions. For example, your sleep quality might not be as good as you want it to be. You do your research, and decide you are going to take a magnesium supplement at night-time. How will you know whether or not it works? You need a plan. You need data.

That data can be subjective. For example, for the next three days when you wake up, you score yourself on a scale of 1 to 10, using a question such as "how refreshed am I feeling?" Additionally, you might choose to collect objective data. In the case of your sleep, you decide to purchase an Oura ring. It's a device you wear on your finger. It uses infrared light sensors to track a number of variables including heart rate, heart rate variability, skin temperature, movement, and sleep. Upon waking up in the morning it uses that data to present you with three scores: **Readiness** (your capacity to perform well today), **Sleep** (sleep quality, plus personalized advice on your bedtime routine) and **Activity**. It's very insightful and super helpful.

Most seasoned biohackers will use a combination of both subjective and objective data. At the end of the day, what matters most is what works best for you. You use the available science to make informed decisions that lead to choices that have the most impact. **This is the essence of biohacking!**



THE 10 SUPER BIOHACKS

Now it's time to dive in! This is the exciting part. These are the 10 Super Biohacks we will be exploring in this guide.



SUPER BIOHACK #1: FASTING

Dave Asprey states, “**The most important biohack you can do is intermittent fasting.**”

Intermittent fasting means going without food periodically. This covers everything from skipping meals, to time-restricted eating, to alternate-day fasts, to multi-day fasts [*].

Fasting done properly won't make you weak or tired.

Yes, there can be some initial discomfort. But when you know what you are doing, fasting can make you stronger and healthier, both physically and psychologically, by putting an end to food cravings and breaking you out of your food prison. It's a tool that helps you unlock biological resources in your body; resources you probably never knew you had!

Other scientifically-proven benefits of fasting include weight loss and improved blood glucose control [*] [*]. Fasting turns on a process in your cells called autophagy, the cellular cleanup process [*]. During normal activities, your cells accumulate metabolic waste products and autophagy is the “housekeeping mechanism” that degrades and processes these materials so your cells can work more efficiently. **Scientists believe that autophagy may play a role in promoting longevity [*].**



How to Hack Fasting: Instead of breakfast, try Bulletproof coffee with grass-fed butter and Brain Octane Oil. [Here is a link to the recipe](#). If coffee is not your thing, try the [Bulletproof Matcha Latte](#). The fats help you feel satiated without raising your blood glucose or insulin levels [*]. One of the magic ingredients is Brain Octane Oil a highly purified form of coconut oil. This MCT is powerful because it gets processed differently from other types of fats. It goes straight to your liver and gets converted into ketones, a high-octane fuel source for your brain and body [*]. You usually have to go on a very low carbohydrate diet or fast for long periods of time for your body to produce ketones.

The Ultimate training in how to fast is [Dave Asprey's 14-day Fasting challenge](#). Come and join an incredible course and community for FREE!





SUPER BIOHACK #2: SLEEP

High-quality sleep is everything!

Think back to a time when you had a great night's sleep. How did it make you feel? What kind of day did you have?

Consistent good-quality sleep brings out the best in us. Besides allowing us to rest, consolidate memories, and process the previous day's events, scientists have found that it is during sleep that the brain removes toxins and metabolic products via the glymphatic system [*]. If the glymphatic system isn't able to clean up neurotoxic waste products, these can build up in the brain and possibly contribute to neurodegenerative disorders [*].

When it comes to sleep, quality is better than quantity [*]. If you can sleep efficiently, you don't require as much sleep. Feeling better with less sleep means more time awake. More time awake means that you'll have more time to be productive and do the things that matter most to you!

Hacking your light environment can significantly improve your sleep. The blue light coming from our computer screens, smartphones, and indoor fluorescent lighting is referred to as "junk light." This type of light tells our brains that it is daytime. Exposure before bed can disrupt our circadian rhythm, our sleep-wake cycle [*]. Blue light suppresses melatonin, the sleep hormone, which can lead to poor sleep quality.

How to Hack Sleep: Protecting the eyes from blue light up to 2 hours before bed can lead to improvements in sleep quality and duration [*]. [TrueDark](#) twilight lenses block 100% of the “junk” blue, green and violet light that can mess with your sleep. Put them on when the sun goes down and notice what happens to your sleep.

To become a super sleep-hacker join the [FREE 14-Day Sleep Challenge with Dave Asprey](#), where you will receive the tools and training you need to get a better night's sleep!



SUPER BIOHACK #3: COLD

Although it may sound daunting at first, intentionally exposing yourself to the cold by taking a cold shower, swimming in a cold body of water, or going into a cryotherapy chamber can actually help you feel invigorated, alert, and focused!

Cold exposure builds psychological and physiological resilience.

In the long-term, regular exposure to cold might help your body burn more fat [*], improve recovery from exercise [*], and boost your immune system [*]. Cold therapy may also enhance mood by increasing your levels of feel-good endorphins [*].

How to Hack Cold: The easiest way to get started and to incorporate cold exposure into your routine is to finish off your shower with 30 seconds of cold. Then, week-by-week you increase the amount of cold time. If you have access to cryotherapy, this is an even more intense cold-exposure hack. This involves going into a chamber that is about -220°F for 2-3 minutes. It's an unforgettable experience!





SUPER BIOHACK #4: LIGHT

You already know that artificial blue “junk light” isn’t good for you. However, there are other types of light that are very beneficial for you. One of those is sunlight. That’s right, the same sunlight that many people are fearful about has a huge impact on your biology.

For optimal health, our bodies need regular exposure to a full spectrum of light from the sun [*].

Most humans are dependent on sun for their vitamin D requirement. Skin pigment, sunscreen use, aging, time of day, season and latitude dramatically affect Vitamin D levels. Vitamin D3 downregulates inflammation in the body, promotes proper immune cell function, and assists in optimal insulin production [*]. Even though it is essential, it has been estimated that about 50% of the world’s population has Vitamin D insufficiency, in part because we avoid the sun so much [*].

Aim for 10-20 minutes of sunlight on your bare skin every day. If possible, do this in the middle of the day when UVB rays are the most powerful [*]. Of course, too much exposure can cause damage to your skin [*]. Start with 10 minutes of exposure and monitor how you respond. If you look a bit red afterwards, dial it back.

How to Hack Light: Another powerful type of light that can enhance your biological functioning is red light. Red light therapy (around 600 nm wavelength [*]) has a wide range of benefits including improving mitochondrial function [*], increasing circulation [*] and decreasing inflammation [*]. LED red light therapy (or photobiomodulation) is like photosynthesis for the body. **Check out the TrueLight range of products from TrueDark, the same company that makes the blue-light blocking lenses.**

SUPER BIOHACK #5: FOOD

Food is a powerful biohack because YOU can control what you put into your body to have the biological impact that you want.

Food is a vehicle to deliver nutrients to us. It also contains energy and encodes information. With every mouthful of food you swallow, you are downloading a set of instructions as to what you want your body to do. Make this hormone! Turn on this gene! Express this protein! Turn off hunger! Activate the immune system! You get the idea.

The food choices you make matter.

The way you look, feel and perform is massively influenced by what foods you do and do not consume. You already know this! Think back to the last time you ate junk food. What happened to your mood and energy afterwards? So, what makes a good diet? Well, the correct answer is it varies from person to person. We all have genetic and metabolic nuances that require us to fine-tune what we eat. Additionally, age, ethnic background, activity level, body type, body composition, dietary preferences, food accessibility and our values all play a role. **That said, there are general principles that work for most people.**



In general, good nutrition involves becoming informed about food and its impact not just on you, but also the environment.

Proper nutrition includes slowing down and eating consciously, tracking and reflecting on eating patterns, and making food choices and adopting a lifestyle that reduces inflammation, minimizes your exposure to toxins and chemicals and meets your nutrient and energy needs.

By removing foods that make you weak and adding in the foods that make you strong, you'll look better, feel better, and perform better in everything you do. This is the goal of Dave Asprey's world-famous [Bulletproof Diet](#)!

How to Hack Food: Download the [FREE Bulletproof Roadmap](#). Here you will find a list of foods in the green "Bulletproof" zones, which don't cause issues for most people, yellow "suspect" foods, which may or may not be good for you (depending on your unique biology), and red "Kryptonite" foods which will inhibit everyone's performance.

Also check out the [10 Steps to the Bulletproof Diet](#) to help you get started.





SUPER BIOHACK #6: SUPPLEMENTS

Biohackers love to experiment and many use supplements to help achieve the goals they desire.

In considering supplements, it's good practice to be clear about the outcomes you are seeking. Make sure you are addressing the underlying cause of any health-related issues and not attempting to patch it up with supplements. For example you might decide to take an adaptogenic herb, B vitamins and Vitamin C to support your energy levels. However, if the underlying problem is iron deficiency or hypothyroidism or sleep deprivation or mold exposure, then be sure to address those as well. You get the idea! When selecting a supplement, investigate. Is there research to substantiate the claims of the manufacturer? If you are on medications, are there any known supplement/medication interactions you should be aware of [*]?

Also make sure your supplement provides an adequate dose of the active ingredient so it has the desired impact on your biology.

Whenever possible, go with reputable brands from companies and people you trust.

How to Hack Supplements: Start by reviewing the [Top 10 Supplements that Everyone Should Be Taking](#).

Once you learn more, you can incorporate more specialist supplements into your regimen according to the outcome(s) you desire. [The Bulletproof Guide to Supplements](#) can help you with this.

If **you have a medical condition and are considering using supplements** we recommend consulting with a functional-medicine informed physician or naturopath if you can [*].

SUPER BIOHACK #7: MOVEMENT

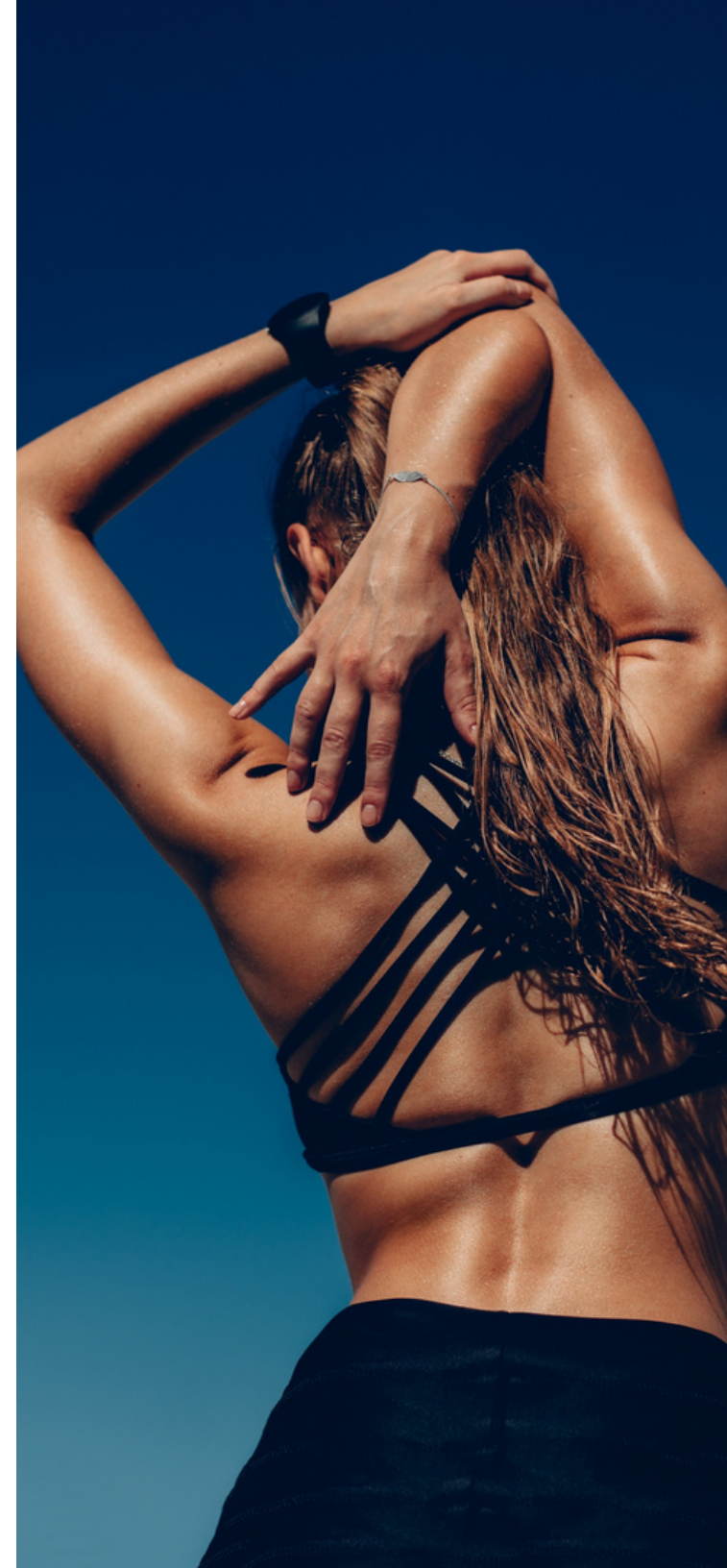
Regular physical activity is proven to help prevent and manage heart disease [*], stroke [*], diabetes [*] and several cancers [*].

It also helps prevent hypertension [*], maintain healthy body weight [*] and can improve mental health, quality of life and well-being [*]. Physical activity refers to all movement. Popular ways to be active include walking, cycling, sports, active recreation and play, and can be done at any level of skill and for enjoyment by everybody. According to the World Health Organization, physical inactivity increases the risk of cancer, heart disease, stroke and diabetes by 20–30%. It is estimated that four to five million deaths per year could be avoided if the global population was more active [*].

We are designed to be active, but modern life (desks, TV, commutes) has led to some people spending most of their day sitting in a rigid, flexed, hunched-over position!

As biohackers we know this is bad news, and we take action to address this!

How to Hack Movement: Build your day around movement. We will assume you are already engaging in cardiovascular exercise a few times a week, whether its walking, running, cycling, jogging, dancing or swimming, so in addition to this here are our five top tips!



1. Start your day with a morning stroll. Exposure to bright morning light correlates with a lower body weight and is the primary way of getting our internal rhythms working optimally [*]. It's a great way to start your day, especially if you do it mindfully, by being with the sensory experience of the walking. If you want a good cardiovascular workout, turn up the speed and make it be your daily power walk!

2. Do some form of strength training twice a week. Muscles are organs that need to be exercised. Did you know that muscles help regulate hormones [*], produce energy through their mitochondria [*] and improve insulin sensitivity [*]? What you do is up to you – just make sure it's enjoyable. That way it is more likely you'll stick with it! Some suggestions are body weight workouts, weight training, circuit training, gymnastics, pilates and yoga. As well as taking local, in-person classes, or working with a personal trainer, there are plenty of exercise apps that will guide you through a program designed to improve strength.

3. Try one or two sessions of HIIT (high-intensity interval training) each week. You have probably heard of HIIT. It's a form of physical activity consisting of intense, all-out, time-limited movement (usually 10 to 30 seconds), followed by a period of low-intensity movement. You repeat these 3 or more times [*]. Popular forms of HIIT include running, cycling and rowing. The research on the effects of HIIT is impressive. Studies show that HIIT helps your body make new mitochondria. This is super important because your mitochondria are the powerhouses that create the energy your body needs to function properly [*]. HIIT also improves VO2 max [*], can help you lose fat [*], improves your blood glucose and insulin levels [*], and decreases inflammation [*].



4. Shifting your movement patterns is essential. If you sit a lot, stand intermittently. If you stand a lot, sit when you can. If you tend to keep your feet and legs still, allow them to move around, to fidget, it helps with blood flow [*]. If you have spinal or back/neck problems or tend to slouch, get checked out by an osteopath, chiropractor, physiotherapist or bodyworker. If your workouts tend to be formal, structured, and serious, balance it up with more playful games and movements (check out the Primal Play Method). You get the idea, mix it up!

5. Knowledge is important when it comes to exercise. Exercise and nutrition are two subjects that tend to polarize the experts so no wonder it's sometimes hard to figure out what to do. And new findings, with regards to nutrition and fitness are always being discovered through scientific research. Head to the [daveasprey.com blog](https://daveasprey.com/blog) and check out his latest articles on exercises and movement.





SUPER BIOHACK #8: BREATH

Your breath connects your body and mind. Learning to breathe consciously is a given for any serious biohacker. It takes time and patience to learn, but the more you rewire your default breath patterns towards optimal, the more you will feel like you now have your hands on the steering wheel of your vehicle, your body!

Check in with yourself right now. Are you breathing in through your nose or mouth? Are you breathing from your chest or belly?

With training and as your nervous system becomes balanced, you will naturally start to breathe optimally: through the **nose** (breathing in and out of your nose), **low** (belly/diaphragmatic breathing), **slow** (6-12 breaths per minutes), **small** (not big breaths!), and **rhythmic** (many people hold their breath when focused or anxious).

Let's do an experiment!

Notice how you are feeling right now. On the next in-breath, breathe in for the count of 4, then breathe out to the count of 7. Allow your mouth to open slightly, tongue relaxed and soft. In for 4, out for 7. Repeat once more.

Notice how much more **calm, present and centered you are!**



This breathing method, 4/7 breathing, is just one of hundreds of breathing techniques you can use to control your autonomic nervous system. Your autonomic nervous system not only brings dynamic control and balance to the functioning of your body's organs and systems, it has a profound influence on your behavior and psychological state. Studies show that incorporating deep breathing techniques can help lower heart rate and salivary cortisol levels as well as improve mood and decrease perceived stress [*].

How to Hack Breath: Dave has recorded a couple of videos demonstrating two breath techniques, [Box breathing](#) and Ujjayi Breathing ([AKA Ocean Breath](#)). I encourage you to check them out.

And finally, we must mention Wim Hof, the Ice Man. He teaches a hugely popular breathing method that uses a combination of power breathing followed by breath holds, to enhance the body's resilience, wellbeing and performance. Wim offers a free 11-minute guided session of this. Check it out [HERE](#).

SUPER BIOHACK #9: MEDITATION

In Dave Asprey's book, **Game Changers**, most of the high-performing people he interviewed credited meditation as one of their most important and impactful hacks. Why? **Because meditation teaches you a process for switching out of mental chatter and compulsive busyness into the freedom and ease of a deeper dimension of you, called being or presence.**

In Daniel Siegel's enlightening book **Aware: The Science and Practice of Presence**, he lists five major benefits that arise from practicing the three learnable skills of meditation practice: focused attention, open awareness and kind intention. They are **improved immune function** [*], **optimization of telomerase levels** (the enzyme that repairs the ends of your chromosomes, keeping them young and healthy) [*], **reduced inflammation** [*], **improved cardiovascular factors such as blood pressure** [*], and increased neural integration in the brain which allows **better self-regulation and problem-solving skills** [*].

In summary Dr. Siegel says:

“the scientific findings are now in: your mind can change the health of your body and slow aging.”

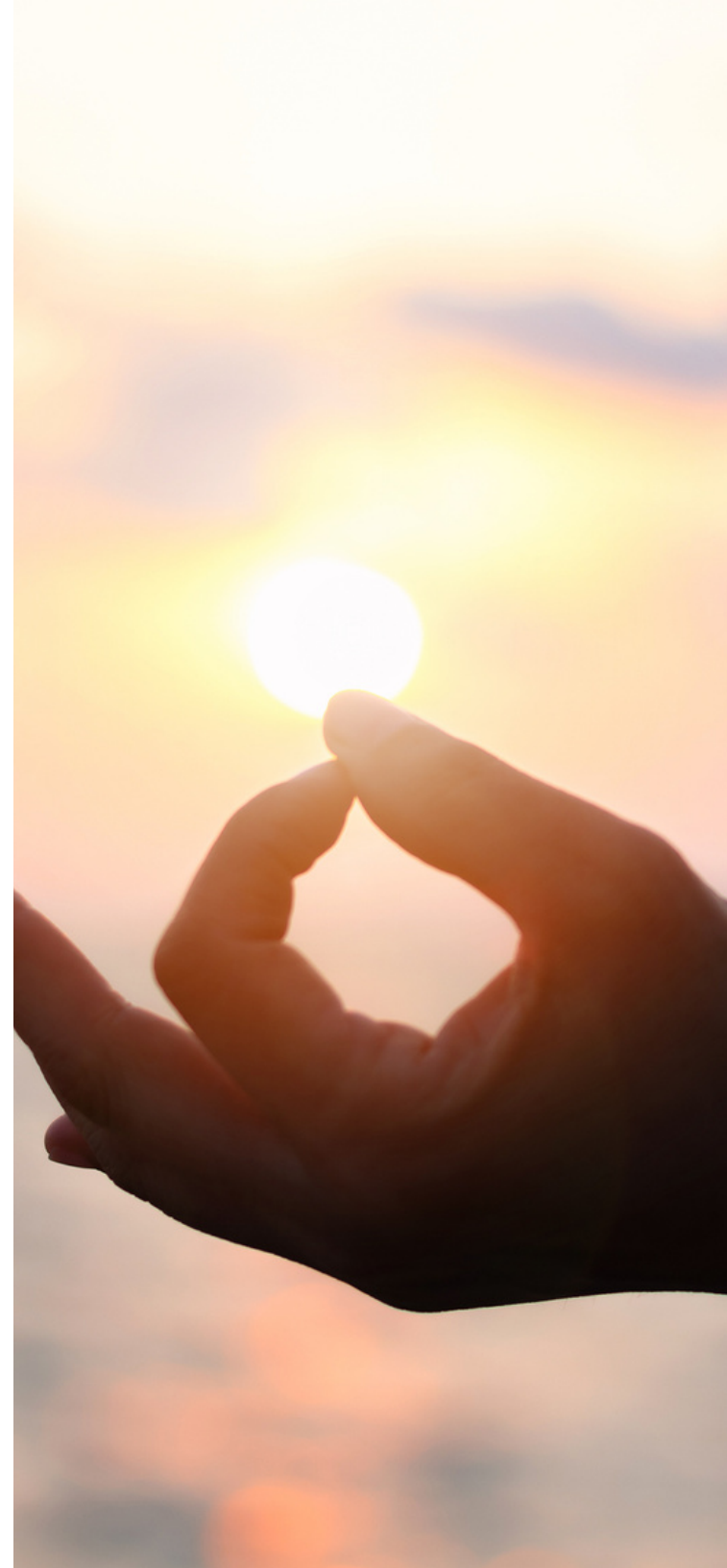


How to Hack Meditation: Get started with meditation by doing Dave Asprey's [6 Tips to Help You Meditate Better](#) or by downloading a meditation app such as [Headspace](#).

Make sure you also download the [Fast Shift Method](#). Created by Dave and Dr. Mark Atkinson (medical doctor and founder of the Human Potential Institute), the Fast Shift Method teaches you an extraordinary psychological hack for dialling down mental chatter and turning up the experience of joy and inner peace. It takes a few minutes to learn and is a real game changer! Be sure to also check out their five-star rated, world-class, [Human Potential Coach Training Program](#)!



Mark Atkinson, MBBS.
Head of Human Potential Institute
humanpotentialinstitute.com





SUPER BIOHACK #10: GRATITUDE

Bring to mind something for which you are grateful. Feel that gratitude in the area of your heart, while softening your eyes and allowing your tongue to soften. Gently be with the experience of gratitude. Relax, smile and enjoy!

Gratitude is a powerful practice to shift us out of a stressed state into one in which we feel connected, grounded and resourced.

Studies show that having a regular gratitude practice may help increase happiness and life satisfaction. It can even fight symptoms of depression [*]. Expressing gratitude also leads to better physical health and relationship quality [*].

How to Hack Gratitude: Keep a gratitude journal. Every night before bed, list 3 things for which you are grateful and allow yourself to feel that gratitude for at least 30 seconds. Notice what happens to the way you feel! Also check out Dave's article on [Gratitude](#).

THE BIOHACKERS INVITATION

Pick at least two of the ten biohacks and incorporate them into your lifestyle for the next 7 days.

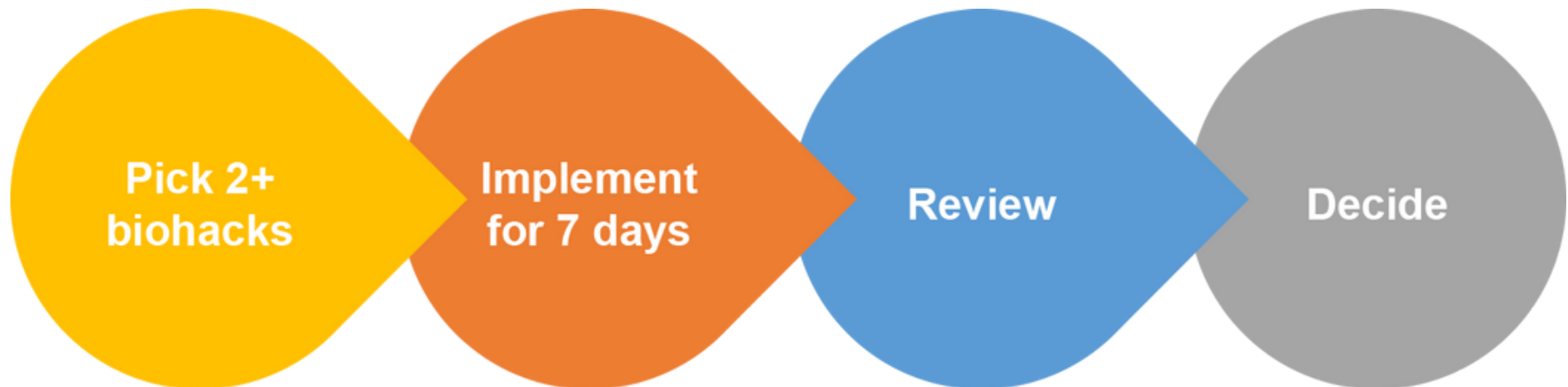
Be clear about your desired outcomes for each. Be clear about why you have chosen them.

At the end of your week review your experience. What happened? What did you learn? How are you feeling? Will you continue with these, stop them or modify them? What other biohacks will you now add to them or replace them with?

This approach of curious, systematic inquiry encapsulates the spirit of being a biohacker!

If you are consistent in applying the knowledge and biohacks we have shared here, you should notice month-by-month that you are becoming healthier, happier, more high-performing. That's great news for you, and great news for the people around you.

Welcome to the world of biohacking!



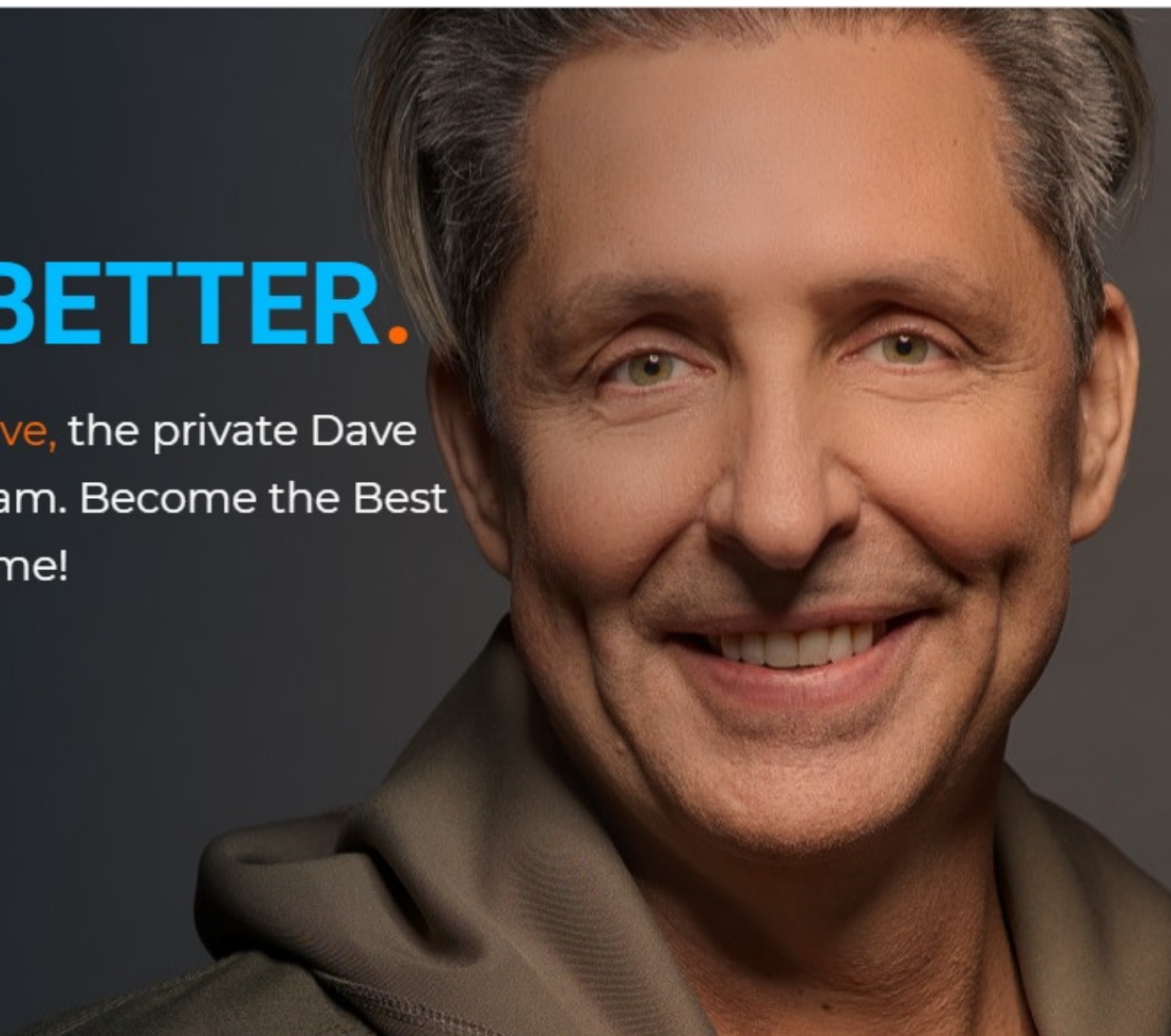
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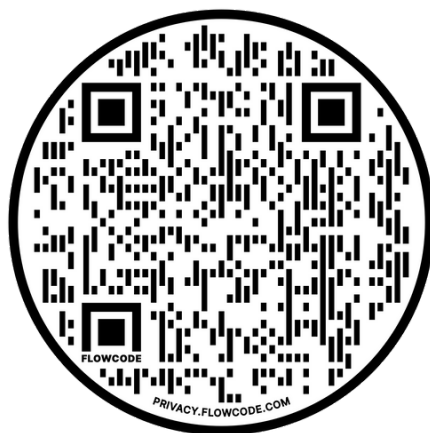
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