HUBERMAN LAB

The Daily Blueprint

Science-backed tools and protocols to maximize your productivity, physical, and mental health



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The Daily Blueprint

Drawing from 250+ hours of Huberman Lab podcast content, we created this Blueprint as a way to consolidate and condense the **most impactful**, **zero-cost tools** to maximize your daily routine for physical and mental health and performance.

Thank you for your interest in science!

쓸 Phase 1: Waking and Early Morning (Hours 1-4)

Prioritize light exposure each morning

 Outdoor light exposure causes a beneficial <u>cortisol peak</u> early in the morning; increases daytime mood, energy and alertness; and helps you fall asleep more easily at night ¹.

A morning walk outdoors can provide you with both light exposure and <u>optic flow</u>, which quiets activity of the amygdala and related circuits and reduces feelings of stress and anxiety all day.

Delay caffeine and ensure proper hydration

- Delay your caffeine intake by **90–120 minutes** after waking to help increase alertness and avoid an afternoon crash. (As a caveat: if exercising first thing in the morning, **feel free to drink caffeine before exercise.**)
- Aim to drink around **32 ounces** (1 liter) of water during this morning period, and add a pinch of sea salt for a source of electrolytes.

Use breathing to increase energy

• **Cyclic hyperventilation** shifts the autonomic nervous system towards feelings of increased alertness and enhanced focus. This pattern of breathing consists of rapid inhales and exhales, which causes hyperventilation, releasing adrenaline and thus increasing neural excitability.

To practice:

- Take a **deep inhale** through your nose, immediately followed by a **deep exhale** (active or passive) through your mouth.
- Repeat the above 20–25x, then fully exhale until lungs are empty.
- Hold for 15-30 seconds.
- Repeat for up to 5 minutes total.

Expect to feel a little tingly or agitated during the exercise. However, over the next few minutes, adrenaline levels will increase to greatly improve your focus and attention.

() Please use caution practicing this technique if you are prone to panic attacks or have high anxiety. Always practice seated and in a safe environment—and never near water, since this can cause blacking out, especially when extending the breathhold beyond 30 seconds. Sadly, people have died from "shallow water blackout," which can lead to drowning in even very shallow bodies of water.

Optimize your productivity

- Position your computer screen at eye level or above for increased alertness.
- Use <u>binaural beats</u> of **40 hertz** frequency if struggling to focus. White noise can also be effective. Otherwise, silence is best.

The best time in the morning to do hard mental work is typically in the **1–4 hours** after waking. Moderate-intensity exercise before a bout of deep work increases blood flow to the brain and can improve focus and productivity.

- C- Phase 2: Midday Through Evening (Hours 5–13)

Use exercise to optimize your energy levels

• Exercise helps to regulate blood sugar, balance hormone levels, improve immunity, and depending on the type of exercise, can either increase energy levels or support feelings of relaxation ².

Optimize your food and hydration

- Eat a lower-carb lunch to help avoid an afternoon crash.
- Go for a short **5–30 minute** walk after lunch to increase metabolism and further calibrate your circadian rhythm with light exposure.

Rest and recharge with naps or non-sleep deep rest (NSDR)

- Try to keep naps to 20 minutes or less to avoid <u>sleep inertia</u>. However, if you don't feel an afternoon dip in energy or you tend to feel groggy after a nap, feel free to avoid them. Naps are not necessary.
- Use a <u>non-sleep deep rest (NSDR)</u> protocol for 10–30 minutes to increase dopamine levels and mental energy ³.

Eat dinner and prioritize sunset light exposure

- Eat dinner with some higher-carbohydrate (i.e. starchy but still complex) foods and protein to promote relaxation and sleep.
- Get light exposure around sunset to reduce the negative effects of light exposure later in the night.

² See Appendix: 2. How to Build an Effective Exercise Protocol

³ See Appendix: 3. How to Recover From a Poor Night's Sleep

Septime and Sleeping (Hours 14–24)

Prioritize a consistent sleep schedule

- It is crucial to wake up at the same time (+/-1 hour) each morning, days off included.
- Sleeping in later than that on the weekend is likely going to disrupt your circadian rhythm and make waking on your regular schedule that much harder.

Use breathing to promote relaxation

 Physiological sighing rapidly shifts the autonomic nervous system towards a state of increased calm. Even just 1–3 cyclic sighs can be effective, and if repeated as a short breathwork practice for five minutes a day, it has been shown in a <u>clinical trial</u> to improve sleep, lower resting heart rate and enhance mood around the clock.

To practice:

- Take a deep inhale followed by a second, 'top-off' inhale to maximally inflate the lungs.
- Release all your air with a full "lungs-to-empty" exhale.
- Repeat **2–3x**.

Optimize your sleep environment

- Start dimming the lights shortly after sunset and avoid overhead and bright lights in general.
- Dim computer and phone screens as much as possible, or use a red-hued filter to reduce blue light exposure.
- Cool your bedroom to 1-3 degrees lower than usual.
- Make your room as dark as possible using blackout blinds or an eye mask.

If you wake up in the middle of the night, use NSDR to promote relaxation and support falling back asleep quickly.

Appendix

Disclaimer

There are many factors, including your genetics, lifestyle, work schedule and threshold for change that will influence which protocols work best for you.

While habits and routines are ideally followed every day, consistency is more important than perfection. Aim to use these tools on at least **85% of days**.

These tools do not replace the advice of a health care professional; if you have concerns about your energy levels, diet and nutritional needs, sleep, or general health, please consult a health care professional.

1. How to Optimize Morning Light Exposure

When	Within 30–60 minutes of waking
Where	Outside
How long	-☆ Sunny day = 5–10 mins む Cloudy day = 10–15 mins ♀ Overcast day = up to 30 mins
How to do it	Look towards the sunrise or sun, but never stare directly at the sun . Blink as necessary. Wearing contact lenses and prescription glasses are fine, but aim to avoid using sunglasses or hats that are meant to block sunlight from your eyes.
lf you can't get outside:	Bright, blue-hued indoor lights will suffice, but try to get outdoors as soon as you can. <i>Lux</i> is a unit of measure of the intensity of light exposure to the human eye. Even on a cloudy day, outdoor light reaches around 10,000 lux, compared to a bright indoor light source, which is usually no brighter than 1,000 lux.

-O-Huberman Lab Topics page on Light Exposure and Circadian Rhythm.

2. How to Build an Effective Exercise Protocol

There are many ways to design an exercise protocol, depending on your current fitness level, goals, lifestyle and time constraints.

To learn more about the science of exercise, visit the <u>Huberman Lab Topics</u> page on Fitness and Recovery, or viewing the following resources:

- Neural Network Newsletter: Foundational Fitness Protocol
- Science of Muscle Growth, Increasing Strength & Muscular Recovery
- Dr. Duncan French: How to Exercise for Strength Gains & Hormone Optimization
- <u>GUEST SERIES: Dr. Andy Galpin: Optimize Your Training Program for Fitness &</u>
 Longevity
- GUEST SERIES: Dr. Andy Galpin: How to Build Physical Endurance & Lose Fat

3. How to Recover From a Poor Night's Sleep

If you've experienced a poor night's sleep, your impulse may be to sleep in, drink a much-needed cup of coffee as you roll out of bed, and push your morning workout until the evening when you're feeling up for it. But **the best way to recover from a poor night's sleep is to make sure it doesn't affect your** *next* **night's sleep**.

Here are the most important protocols for recovering from short-term sleep deprivation:

- ⊘ Get up at the same time as usual. Sleeping more than 1 hour past your usual wakeup time can shift your circadian clock later (called *phase delay*), making it harder to fall asleep that night.
- Ensure you get adequate sunlight exposure soon after waking to support a <u>cortisol</u> <u>peak</u> early in the day.
- O Delay caffeine until 90–120 minutes after waking to maximize the energy-boosting effects of your cup of coffee or tea.
- Exercise in the morning to encourage an early-day cortisol peak and provide a boost in adrenaline and focus.
- ⊘ If you're feeling tired in the afternoon, avoid caffeine and take an afternoon nap or use a 10–30 minute NSDR protocol to recharge instead.

To dive deeper into the science of sleep, we recommend visiting the <u>Huberman</u> Lab Topics page on Sleep Hygiene.

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4. Glossary

Cortisol & cortisol peak

Cortisol, a hormone released from the adrenal glands, is the key driver that moves your body from sleep to waking. It is essential for the cortisol pulse to happen early in the day or early in your period of wakefulness.

A timer is set when the cortisol pulse occurs, which dictates the release of melatonin about **12–14 hours** later.

Optic flow

Optic flow is a phenomenon that occurs when we generate our own forward motion, such as when walking, biking or running. Visual images pass by our eyes, generating a flow of information that has a powerful effect on the nervous system. Optic flow has been shown to reduce the amount of neural activity in the amygdala, which is a brain structure that generates feelings of fear, threat and anxiety.

Binaural beats

Binaural beats are a type of sound that can be used to bring the brain into different states of relaxation or alertness. They involve delivering a different beat pattern to each ear. The difference in what each ear is hearing (called interaural time differences) generates particular types of brainwaves. The frequency of binaural beats that appears to support enhanced cognitive functioning at the level of memory, improved reaction times and improved verbal recall seems to be **40 hertz**.

Sleep inertia

Sleep inertia is the grogginess and disorientation that people feel when they wake up from deep, slow-wave sleep. Napping longer than **20–25 minutes** can allow the brain to begin a full sleep cycle. Trying to quickly wake up from the middle of a sleep cycle is difficult and can lead to even more fatigue and irritability than when you started your nap.

5. Links, References and Further Resources

To dive even deeper on some of the tools outlined in this Blueprint:

Explore the following timestamps from *Huberman Lab episode: Maximizing Productivity, Physical & Mental Health with Daily Tools:*

- Protocol: View Natural Light For 10–30 min Every Morning
- Protocol: Hydrate Correctly
- Protocol: Optimize Deep Work: Visual Elevation, Ultradian Cycles, White Noise
- Protocol: Reset the Mind & Body, Enhance Neuroplasticity, Reveri.com
- Protocol: Eat Dinner That Promotes Serotonin, Calm Sleep
- Protocol: Weekends, Recovering From A Poor Night's Sleep

To learn more about supplementation for health and performance:

The tools shared in this Blueprint are zero-cost. To learn more about how supplements can aid in health and performance:

- Listen to Huberman Lab episode: <u>Developing a Rational Approach to Supplementation</u>
 for Health & Performance
- Visit the Huberman Lab Topics page on Supplementation for Health and Performance

To better understand and leverage ultradian cycles for productivity:

Watch AMA #1, question #1, where Dr. Huberman discusses how to use ultradian cycles in your daily work:

• How do you use ultradian cycles in your daily work? (AMA #1)

The question above was submitted by a <u>Huberman Lab Premium</u> member and answered during one of our monthly, members-only AMA episodes, where Dr. Huberman answers audience questions, including:

- What is the best morning routine for people who work from 8 am to 5 pm? (AMA #1)
- Are there any science-backed protocols to increase deep sleep? (AMA #2)
- Is It possible to get a cold or sick from deliberate cold exposure? (AMA #7)
- Best productivity method: to-do list or time-blocking on a calendar? (AMA #7)
- What advice would you give to your younger self? (AMA #7)



Huberman Lab Premium

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In addition to the ability to submit questions to Dr. Huberman, Premium members also enjoy access to these exclusive benefits:

- Monthly Ask Me Anything (AMA) episodes, plus access to the full archive of historical AMA episodes
- Full episode transcripts for every episode of Huberman Lab
- Presale access to live events

A portion of every Premium membership goes directly towards making a significant contribution to fund human scientific research selected by Dr. Huberman and makes science information accessible for all.

To learn more about Huberman Lab Premium and become a member, please visit **hubermanlab.com/premium**.

About Dr. Andrew Huberman

Andrew Huberman, Ph.D., is a neuroscientist and tenured professor in the department of neurobiology, and by courtesy, psychiatry and behavioral sciences at Stanford School of Medicine. He has made numerous significant contributions to the fields of brain development, brain function and neural plasticity, which is the ability of our nervous system to rewire and learn new behaviors, skills and cognitive functioning.

Huberman is a McKnight Foundation and Pew Foundation Fellow and was awarded the Cogan Award in 2017, given to the scientist making the most significant discoveries in the study of vision. His lab's most recent work focuses on the influence of vision and respiration on brain states such as fear and high attention focus and developing rapid and effective tools for mitigating stress and improving sleep and other physiological metrics.

Work from the Huberman Laboratory at Stanford School of Medicine has been published in top journals including *Nature*, *Science* and *Cell* and has been featured in *TIME*, *BBC*, *Scientific American*, *Discover* and other top media outlets.

In 2021, Dr. Huberman launched the Huberman Lab podcast. The podcast is frequently ranked in the top 10 of all podcasts globally and is often ranked #1 in the categories of Science, Education, and Health & Fitness.



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