

# **LOW GEEV ITY**

**SCIENCE  
NOTES.  
YOUR  
ULTIMATE  
GUIDE TO  
MODERN  
LONGEVITY**

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For my son Juliusz.

May you always be surrounded  
by my presence, love,  
and acceptance.

May the sense of safety  
and the freedom to be yourself  
guide you through life,  
allowing you to grow  
in happiness, strength, and awareness.

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# 01: Introduction: Why Longevity Science Matters

## **How to use this ebook to truly upgrade your health and energy?**

Welcome to “Longevity Science Notes”-a guide created for you: the curious, demanding reader seeking proven, modern strategies for a longer, healthier life.

If you're here, you're probably tired of generic advice and motivational clichés. You crave specifics, grounded in science, that actually work. You want to know how the latest discoveries in biohacking, functional medicine, neurobiology, and technology can help you sleep better, boost your energy, sharpen your focus, nurture your gut microbiome and hormones, and slow aging. This ebook isn't just another theoretical manual-it's a set of practical, condensed notes, checklists, and protocols you can implement right away.

## **Each chapter answers real questions and problems that come up most often in your messages, comments, and searches:**

- How can I finally have more energy without relying on coffee or random supplements?
- What can I do to sleep deeper and wake up refreshed?
- How do I get rid of brain fog and improve my focus?
- How do I care for my gut, immunity, and microbiome?
- How do I slow aging and feel younger, regardless of my birth year?

- How can I naturally calm inflammation and pain?
- How do I protect myself from stress, toxins, and modern threats like EMF and blue light?
- How do I make changes that last for years-not just a few weeks?

Here you'll find only what works-backed by research, tested in practice, and explained in plain language. Every chapter ends with a checklist or protocol so you can immediately start building new habits. This ebook is your personal guide to modern longevity. Start making changes today and see how your body and mind can operate on a whole new level!

## 02: Energy Unlocked – How to Beat Constant Fatigue

### **Why is energy the foundation of longevity?**

Cellular energy is the currency of health. When it's lacking, fatigue sets in, immunity drops, focus worsens, and aging accelerates. It's no coincidence that Andrew Huberman, Bryan Johnson, and Dr. David Sinclair all see energy management as the starting point for longevity.

### **1. Where does chronic fatigue come from?**

- **Mitochondria** – Your Cellular Powerhouses  
Mitochondria produce ATP, the “fuel” for every cell. Dr. David Sinclair emphasizes that as we age, mitochondria lose efficiency, leading to energy drops and accelerated aging (Sinclair, "Lifespan", 2019).

- **Circadian Rhythm and Light** - Prof. Russell Foster and Andrew Huberman: Exposure to natural morning light synchronizes your biological clock, boosting daytime energy (Huberman Lab Podcast, 2022).
- A lack of daylight and excess artificial light disrupt melatonin and cortisol production, causing fatigue.
- **Chronic Stress and Cortisol** - Dr. Bruce Hoffman: Chronic stress raises cortisol, “burning out” your adrenals and leading to persistent fatigue (Hoffman Centre, 2023).
- **Diet and the Microbiome** - Dr. Tim Spector and Dr. Mark Hyman: Diets low in fiber and antioxidants weaken the microbiome, leading to lower energy and increased inflammation.

## 2. The Most Effective Science-Backed Biohacks for Daily Energy

### A. Morning Sunlight

10–30 minutes of daylight in the morning boosts dopamine and regulates your circadian rhythm (Huberman, 2022).

Bryan Johnson starts every day with light exposure—one of his key longevity hacks.

### B. Movement and Micro-Activity

Short bouts of movement (3–5 minutes every hour) increase ATP production and improve circulation (Sinclair, 2019).

Dr. Kelly McGonigal: Even a 10-minute walk lifts your mood and energy.

### C. Breathing and Oxygenation

The 4-7-8 or box breathing protocol (4-4-4-4) enhances cell oxygenation and reduces stress (Barnes, 2021).

## **D. Mitochondrial Biohacking**

Dr. David Sinclair: Resveratrol, NAD+, CoQ10, and PQQ are supplements that support mitochondrial function. Intermittent fasting activates autophagy and improves cell performance.

## **Red Light Therapy**

Huberman emphasizes that regular exposure to red/NIR light is like “recharging your batteries” for mitochondria-improving their efficiency and supporting cell repair.

## **E. Hydration and Electrolytes**

Bryan Johnson: Water with added electrolytes (sodium, potassium, magnesium) is a morning ritual essential. Dehydration = lower energy and focus.

## **F. Stress Management**

Dr. Bruce Hoffman: Meditation, grounding, and nature exposure lower cortisol and support recovery.

# **3. “Energy Unlocked” Protocol – Step by Step**

- Upon waking: 10–30 minutes outside (daylight, no sunglasses)
- Water with electrolytes-glass of water with Himalayan salt and lemon
- Movement-5 minutes of stretching or a short walk
- Breathing: 1–2 minutes of box breathing
- Protein-rich breakfast (Huberman, Johnson)
- Micro-activity breaks-3 minutes of movement every hour
- Avoid heavy, processed meals during the day
- Red light therapy: 5–10 minutes of exposure in the morning or evening
- Evening: wind down, avoid blue light, stretching

## 4. Frequently Asked Questions

**Q: Is coffee a good idea for morning energy?**

A: Andrew Huberman recommends drinking coffee 60–90 minutes after waking, once natural cortisol drops-then coffee is more effective and doesn't cause a crash.

**Q: How quickly will I see results from this protocol?**

A: Most people feel more energetic after just 3–5 days of consistent morning biohacks.

**Q: Are supplements necessary?**

A: Rituals and lifestyle are most important. Supplements can help, but they won't replace the basics.

## 5. Checklist – Your Morning Energy Ritual

- 10–30 minutes of daylight after waking
- Glass of water with electrolytes
- 5 minutes of movement
- 1–2 minutes of deep breathing
- Protein-rich breakfast
- Micro-activity throughout the day
- 5–10 minutes of red light therapy

**Remember:** Energy is the result of small, daily choices. Start with one new habit and watch your well-being transform-that's real biohacking!