

How to Age Regress:

Biohacking in the 2020s

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Presentation available on: www.selfishinvesting.com
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March 8, 2022 – Draper Startup House





DISCLAIMER

Check with your doctor.

This is not medical advice!

Further, there is not enough time to cover everything but serves as a guideline of truths verified by peer reviewed journal articles from respectable universities and research institutions.

Ben Greenfield:

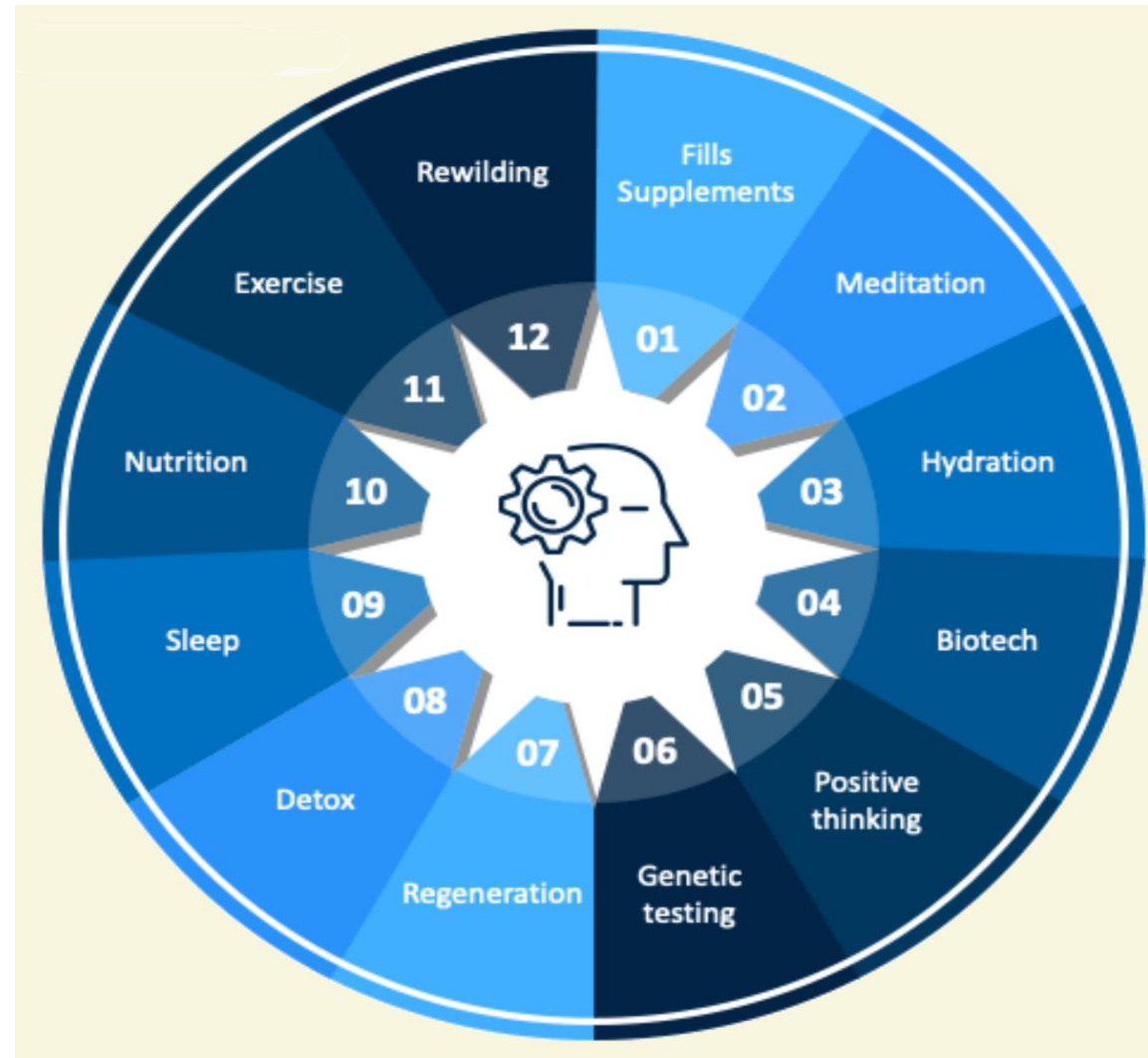
www.bengreenfieldfitness.com

Dr. Eric Berg:

www.youtube.com/c/DrEricBergDC

Siimland: youtube

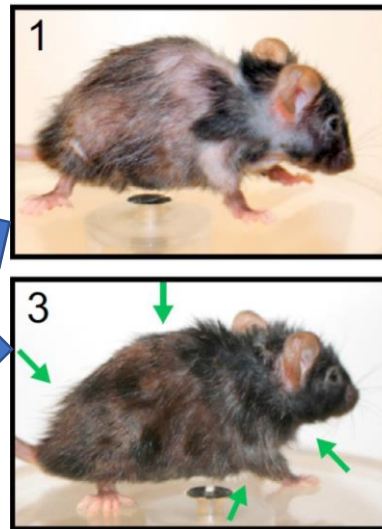
www.siimland.com



**How to turn back one's
epigenetic clock**

My daily potion 1: AM regimen

- **Mg-var:**
 - Regulates blood pressure, boosts immunity, exercise performance
 - Aids in sleep [note: biohacking sleep is challenging if <5 hrs/nite]
- **resveratrol/quercetin/fisetin/pterostilbene:**
 - Slows aging clock – take with fat or ketone ester
- **ketone ester:** induces ketosis [take with NMN]
 - Boosts ketosis
 - Ketones enhance endurance, cognitive decision-making, and physical recovery.
 - When your body is pushed to its limits, it converts stored body fat into ketones for energy to help fuel it.
- **NMN Nicotinamide Mononucleotide:** extends telomeres/activates sirtuins
 - Transforms old mice into young mice ***unprecedented*** – David Sinclair
- **calcium alpha ketoglutarate (CaAKG)** [take alone every 12 hrs]:
 - Helps optimize the epigenome which activates genes: prevents dysregulation/aging
- **TMG (trimethylglycine):** reduces inflammation, exercise performance, NMN+



Exercise

- **HIIT** (high intensity interval training)- intense bursts of exercise (30-60 s) increase the number of mitochondria in our muscle cells, and more mitochondria are thought to contribute to better cellular and metabolic health. [do 5x/wk, 30-60 min ea] – squats, dead lifts, pushups, pullups, kettlebells, planks, lunges.

SPRINTS BEST- 60s (stairs or grass), 2m rest, 5x = 15m

- **VO2 max** (endurance) - 4 min 80-90% then 4 min recovery, 4 rounds [do once every 1-2 wks, 32 min]
- **Tabitas** (boosts VO2 max and anaerobic capacity) - 20s 100%, 10s rest, 4 min total, 1 min rest, do 3 cycles. [1-2x/wk, 15 min]
- **Sauna (IR 30m vs norm 70-90C+ 15-30m) then ice bath/cold shower (1-5 min) then workout with cold core –**
IR: collagen benefits/skin health/wrinkle reduction are greater than normal saunas

Food 1: IF-OMAD

- **IF (intermittent fasting)** 16+ hr fast- mice 2 hr eating window best benefit – OMAD (one meal a day)
- **Autophagy** kicks in after 16 hrs, jumps after 24 hrs, 3 day fast optimal, but hard to fast for 24+ thus biohack tricks next slide. Autophagy is the process that the body uses to get rid of damaged cells – “defrag hard drive”
- **Eating strategies:** Mediterranean, paleo, keto, et al – Naveen Jain: Viome
 - To reduce fat absorption:
 - **Before meal:** 30m before carb rich caloric meal: dihydroberberine (metformin w/o side effects- turns back epigenetic clock), H₂ tablets (metabolism boost, lowers blood sugar/bad cholesterol, energizing), apple cider vinegar + 2 tsp Ceylon cinnamon (lowers blood sugar)
 - **After meal:** glycine (burns fat when sleep, lowers core temp so take before bed or before exercise, increases mineral absorption) + spermidine (first discovered in semen, spurs autophagy)
 - **To stop hunger:** glycine, apple cider vinegar, cinnamon, ketone ester, green tea, cold shower

Food 2

- Sprouts with veg remove plant defense mechanisms
- Avoid sugars, trans fats, white starch, polyunsaturated oils, milk, processed foods
- Salmon/trout/mackerel roe > omega 3s than actual fish + SMASH
- Slows aging: tart berries (blueberries+cardamom strong anti-carcinogen), dark choc (>80% cacao), green leafy veg/phytonutrients, whole lemons (collagen protection/weight loss/liver protection), green tea (EGCGs)
- **Strategies to reset gut:** 1) red phenol powder + apple skins + HMO, 2) Joel Greene's Daisycutter: green beans + protein (no fat), 3) pro- and prebiotics: kefir, sauerkraut, aged cheeses + gouda, pickles, kimchi

My daily potion 2: PM regimen

- **Before food:**
 - Nootropic: Alpha GPC, bacopa monnieri, huperzine A, Thiamax (highly bioavailable/learning/memory)
 - creatine (exercise, sleep)
 - chili pepper powder (gut health, increases absorption), black pepper (anti-inflammatory)
 - mushrooms: chaga (anti-carcinogen), reishi (overall tonic), lions mane (anti-inflammatory, brain boost), beta-glucan (immunity)
 - potassium bicarbonate (mineral balance from sauna/exercise water loss)
 - N-acetyl cysteine (anti-oxidant)
 - Vit D/K2 (immune booster), Iodine (regulates metabolism)
 - oil of oregano (mood stabilizer)
 - ashwaganda (energy)
 - Alpha lipoic acid (overall tonic)
 - Acetyl-L-carnitine (metabolism)
 - Astaxanthin (anti-oxidant, prevents sunburns)
 - Gingko biloba, Korean ginseng (overall tonic, mind and energy boosters)
 - Hyaluronic acid (skin)
 - Glutathione (anti-oxidant)
 - PQQ (energy, memory, focus)
 - Tocotrienols (anti-aging) <https://bengreenfieldfitness.com/podcast/dr-barrie-tan-podcast/>
 - Geranylgeraniol (gg) (mitochondrial optimizer) <https://bengreenfieldfitness.com/podcast/dr-barrie-tan-podcast/>
 - Fo-ti (he shou wu) (hair growth + partially removes gray)
 - Vitamin B complex (brain/mood optimizer)
- **Berberine [right before food]**
 - Halves insulin spike
 - activates AMPK, one of the key longevity pathways
- **SIRT6 activator [right before food]**
 - Activates autophagy, genome optimizer, minimizes inflammation, 30% increase life expectancy in mice
- **Spermidine [right after food]**
 - Activates autophagy



My daily potion 3: Bedtime regimen

- 2-4 hrs before sleep:

- Melatonin 1mg – 200mg: protects gut + mitochondria during stress, normalizes sleep pattern, boosts immunity- Dr. John Lieurance
- Zn: optimizes methylation process [also common colds: Dr. Eby's coldcure Zn Acetate]
- Relaxation:
 - 5HTP
 - Theanine
 - Magnesium threonate (most powerful calming Mg)
 - GABA
 - CBD
 - Nutmeg
 - Chamomile tincture
- Wild yam: precursor to progesterone - relieves anxiety/boosts memory
- Pregnenolone: manages cortisone and stress



My devices

- www.hapbee.com

- Low freq magnetic fields have positive effects in biological systems. They can interact with DNA and proteins such as receptors.

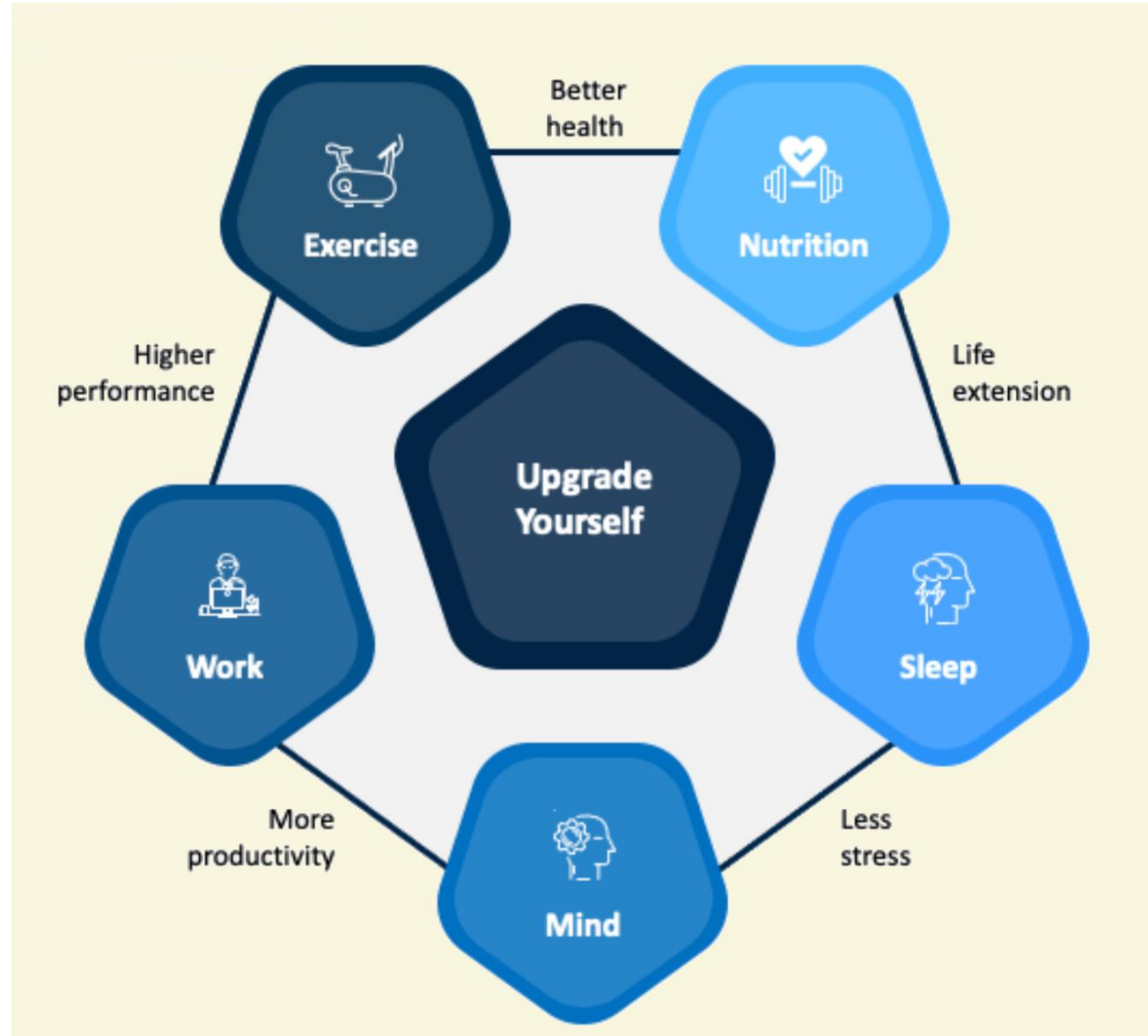
Hapbee records magnetic signatures from specific compounds and replays those fields using a wearable device to imitate emotional effects.

As one example, a magnetic field at 75 Hz created receptors which acted like the adenosine molecule, but without any adenosine being present. This created a sleepy effect in the test subject.

Over 90% of users were able to identify the particular program being sent into their brain. The results were published in peer-reviewed journals including PLoS One, Bioelectromagnetics, Cellular Physiology & Biochemistry and the International Journal of Radiation Biology.

- www.nucalm.com

- The brain has a sympathetic (adrenaline, stress) vs. parasympathetic (meditative) response to events. Nucalm interrupts the stress response by engaging the parasympathetic part of the brain. Heart rate variability is boosted. When you have high HRV, it means that your body is responsive to both sets of inputs (parasympathetic and sympathetic).



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[Presentation downloadable here]

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**2 were taken recently.
2 were taken nearly 20
years ago.**



Fig. 10.5. 1993 photo of the Hoffman Research Group together with three of the original discoverers of seaborgium. *Front row, left to right:* Al Ghiorso,[†] Ken Gregorich,^{*} Mike Mohar,^{*} Yas Watanabe (Visiting Scientist from Japan), Glenn Seaborg,[†] Darleane Hoffman,^{*} Diana Lee,^{*} Chris Kacher,^{*} Mike Lane,^{*} Tonya Pouncey (Administrative Assistant). *Back row, left to right:* Nancy Stoyer, Jerry Forinash (undergraduate), Dawn Keeney, Jerry Yang (undergraduate), Erik Osterreider, Alan Veeck, Mary Neu, Eric Sylwester,^{*} Matti Nurmi.[†] (*Members of the Group involved in the 1993 confirmation experiment. [†]Members of the original discovery team.)

My Horvath's clock is currently around age 25. Back in 1993, my clock was actually late 20s due to lifestyle and lack of biohacking knowledge.

Horvath's clock is the first multi-tissue age estimator, meaning it can accurately determine biological age from all tissue and cell types within an individual across an entire lifespan.*

*Horvath & Raj, 2018: DNA methylation-based biomarkers and the epigenetic clock theory of ageing. *Nature Reviews Genetics*, 371–384.