Move yoself

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Association Between Physical Activity and Risk of Depression: A Systematic Review and Meta-Analysis | annotated by Zakhar

That feel when you report lower depression scores.

In an article by Matthew Pierce et al. in *JAMA Psychiatry*, 15 cohort studies with follow-up durations of 3-26 years (maybe more, but I'm a simple man I don't read) were reviewed to answer one question: **how much exercise is needed to stave off depression**?

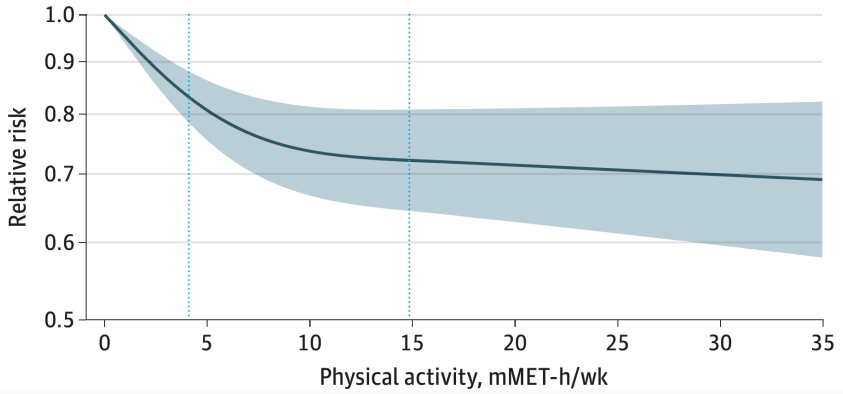
TL:DR → less than you thought.

Real TL:DR

- Total **sample size**: 190,000 participants
- Exercise data was converted into METs. *Spoiler*: sitting at a PC is 1.5/hour, sex is 5.8 (you're probably underdoing it), saluting sun is 7.4

- WHO recommends **30 min * 5 days/week of moderate activity, 8.8 METs** (NOT the meth thing, however it may help...). 17 METs is being a fitness boss (or sitting at a PC, got ya).
- However, **4.4 METs per week had already yielded 18%** lower incidence of depression, yet 8.8 gave only 25% with high uncertainty. Going over that **didn't give substantional additional benefits**.

Figure 1. Association Between Physical Activity and Incidence of Depression



- Can't deny exercise has another benefits, e.g. crying in beautiful places 2-in-1 bonus if it's dangerous

Bonus

https://www.youtube.com/watch?v=h-WPexVEujg

Actions

So how to move more if you're a floor potato? Let's indulge more.

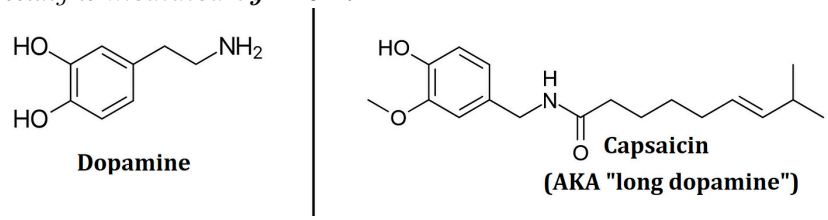
The "Spice" Melange: Exercise, Capsaicin, Cannabinoids, and the Microbiome | annotated by Zakhar

Another day, another study.

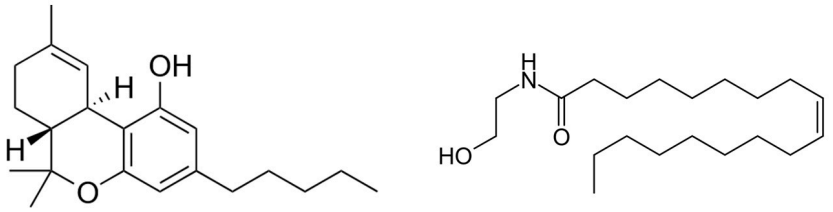
TL:DR

- The scientists tested the exercise abilities and motivation to run on some (~200) **genetically and metagenomically diverse** mice
- **There was no "athlete gene"**, nor a combination of them, so the authors turned out to other venues...

- And found it in microbiome, citing the post: *"I've said before that, if you're looking for a biological reason why two people are different along **any** axis, the microbiome is the logical place to start looking—even before you check the genome."*
- Microbiome **was associated** with the differences (some were potatos, some were Rambos - one ran **30 miles over 2 days**) in exercise motivation, viz. *Coprococcus eutactus* or *Eubacterium rectale*
- The **differences were transferrable**, and FMT between fit fuckers lazyasses did transfer the motivation and capabilities
- Antibiotics did make things universally worse
- Abundance of *Ruminococcus* was one of the strongest predictors of exercise performance, but mice **monocolonized with *Ruminococcus gnavus* actually did *worse* on the treadmill** than mice which had no bacteria at all
- The influence was mediated by **increased dopamine during exercise due to MAO-A inhibition**
- Citing: *"microbiome-depleted mice could have their exercise performance restored by feeding them capsaicin, a molecule that activates the **TRPV1** receptor. Capsaicin is the chemical found in chili peppers, responsible for the sensation of "heat" when you eat spicy foods, and this feeling is **mediated by TRPV1**."*



- *"TRPV1-expressing neurons also **tend to express CB1 cannabinoid receptor CB1**, which gets its name because it's activated by cannabinoids and related compounds. **The chemicals that gut bacteria produce to increase the dopamine released by exercise are cannabinoid agonists**—chemically similar to the endocannabinoids like anandamide that your brain produces on its own."*



Tetrahydrocannabinol (THC, left) and Oleoylethanolamine (Right). OEA seems to only act on PPAR- though...

- Both Capsaicin and fatty acid amides **restore/increase the motivation to exercise, even after antibiotics**

Action plan

A bit of, say, PEA sprinkled with nuts, fish and pepper...OK.

Welcome to **YAWN/Boi Diaries**
You can find my other blogs I try to cross-post to:

- Hashnode
- Medium
- Telegram

- Twitter (for a lot of stuff)
- Maybe even LinkedIn?
  /pdf