

COOL FACTS FRIDAY #21

Dave Asprey:

Welcome to this month's edition of Cool Facts.

Cool Fact #1

This cool fact is about micronutrient-dense foods and it's not what you think. A new study published in *Frontiers in Nutrition*, identified the best nutrient-dense food to address the most common nutrient deficiencies as defined by the government, which probably isn't even right. But nonetheless, turns out diets usually are missing iron, zinc, folic acid, vitamin A, calcium and B12. Doesn't mean you can just take each of those independently because some of them work, some of them don't.

But what the study found is that if you want to eat a diet that has a lot of the things you're probably lacking, there are some specific foods that you should eat more of. Organs, small fish, bivalves, crustaceans, goat, beef, eggs, milk, canned fish with bones, mutton, lamb and, well, leafy greens. They said to a lesser extent, yogurt, fresh fish, pulses, tough and canned fish without bones could work.

But let me share my take on this. Almost none of those are grains except for teff which is an ancient grain that does contain nutrient absorption inhibitors, so I wouldn't recommend teff or pulses. But what about leafy greens? There are some that are good for you and some that aren't. Arugula is way better and so are the dark-colored lettuces like red lettuce compared to spinach or kale, which can actually leach calcium away from you. So some leafy greens are better than others.

Also bivalves, clams, oysters, muscles, scallops. If they're not super fresh they can be high in histamine and that can give you sugar cravings if you're not very sensitive or hives and an allergic response if you're quite sensitive. And organ meats are also really good for you, as you've heard me talking about since my first book on fertility, and it's becoming a really big thing in the carnivore world with my blessing, except that if you eat too much organ meat every day, it raises purine levels, as you heard on the recent podcast with Dr. Perlmutter

So getting an ounce, maybe two ounces a day, max, seems like a good idea, not counting heart, which tends to be lower purines. What does that mean for you? Anytime someone comes on and says, "Look at this brown rice, rich and packed with..." You can just sort of laugh because that's not what the science says.

Source: <https://www.frontiersin.org/articles/10.3389/fnut.2022.806566/full>

Cool Fact #2

This cool fact is about using probiotics to turn down your allergies. This is really interesting because I wrote about this in the Bulletproof Diet. Some species are better than others. This new research from the University of Florida published in the *American Journal of Clinical Nutrition*, found that some probiotics can help reduce hay fever, at least if you take them during allergy season. And we know from lots of studies that probiotics can help you regulate your immune response.

But University of Florida researchers found that not all probiotics do that. They looked specifically at the combination of lactobacilli and bifidobacteria and those are species that maintain digestive health anyway, and they maintain parts of the immune system by increasing your body's percentage of regulatory T-cells, which probably increases your tolerance to hay fever.

What they found was that participants who took a blend of those two probiotics had fewer allergy related nose symptoms, which is pretty cool. What does it mean for you? Well, you probably

ought to be on some prebiotics and some probiotics because prebiotics are food for probiotics and making sure that you have some lactobacilli and bifidobacteria is a really good idea. There are tons of species I've talked about on the show that can be really, really beneficial and there are even a few species out there that specifically make glutathione, which is something that breaks down toxins in the body and some that make antihistamine on board, which are pretty exotic, but available in the market.

So if you're dealing with allergies, do not neglect your gut health and do not neglect all the other things you can do, like air filters and vacuuming. What does this mean for you? Well, it means that you definitely want to be taking some probiotics, but if you have problems with allergies, then you want to zoom in and figure out what's going on in your gut. You can use a test like something from Viome to tell what's happening, so you don't have to use a one size fits all approach, you can take what you're lacking. They'll even mix up a custom probiotic for you.

Source: <https://news.ufl.edu/articles/2017/03/allergies-probiotic-combination-may-curb-your-symptoms-new-study-finds.html>

Cool Fact #3

Our next cool fact is about a link between your DNA and the kind of coffee you drink. This is a new study from the Journal of Scientific Reports and research now shows that how you take your coffee might have less to do with flavor and everything to do with your DNA. Researchers found a specific genetic variant that says whether your body is better or worse at metabolizing caffeine and as they dug deeper, they figured out that people who have that genetic variant also have a thing for black coffee.

One of the theories behind this research is that if you have the ability to metabolize caffeine quickly, you might feel its benefits like alertness, mental clarity, increases in ketosis, longevity. You might feel that more acutely. So if you put it another way, you can learn to appreciate the taste of coffee because it actually makes you feel really good and if you don't have that gene, maybe you want some milk, sugar and extra caramel [inaudible 00:05:21] syrup in it.

What does this mean for you? Well, if you love black coffee, it might be that you have the genetic variant that means you can metabolize caffeine and some other compounds faster and you can look at your detox pathways with any normal DNA test. But the bigger point is that people who are drinking black coffee aren't polluting their coffee, which is full of polyphenols. It's a superfood. They're not polluting it with dairy that sticks to the polyphenol so you can't get it or even worse, with artificial sugar which messes up your gut bacteria and makes you fat.

So what you put in your coffee matters. Every cup you drink, whether you like it black or not, is an opportunity to actually fuel your body and if your coffee is filled with mold or mixed in with other toxins from manmade chemicals, it's probably not what you really want to drink. By the way, I like it. Black or with butter.

Source: <https://www.nature.com/articles/s41598-021-03153-7>

Cool Fact #4

This cool fact is about how little strength training you actually need to make a difference. The reason this cool fact is extra cool to me is that Upgrade Labs is all about squeezing more out of the few minutes of time you may have to exercise so that you can get huge results in very little bits of time. This study talked about very little bits of time.

It's a study from the Scandinavian Journal of Medicine and Science in Sports and they found very small, what they call "spurts" of weight training, can have meaningful benefits. It was a small scale study

but they found that men and women who contracted their arm muscles as hard as possible for, get this, three seconds a day, five days a week for four weeks. In other words, Monday through Friday, for three seconds, they did something hard.

The participants in the study increased their muscle strength by as much as 12% after a month of this. So this super tiny amount of consistent strength training showed evidence that even just a little bit of intense exercise can make you stronger, and the study participants didn't add muscle mass, but they actually grew strength.

And there are other studies that showed quick cardiovascular exercises, like 10 seconds of all out sprinting can have really meaningful benefits on your performance, but it's a lot easier to sprint for 10 seconds or flex your arm for three seconds than it is to go to the gym for an hour and sweat a bunch and maybe not even get those same benefits, although likely, let's face it, you might get more if you're going for a full workout.

What does this mean for you? It means that if you're like the 92% of Americans who actually don't exercise as much as our all-knowing government says you should do, maybe there's a way to make it so painless that you're willing to do it because the benefits outweigh the cost.

Source: <https://onlinelibrary.wiley.com/doi/10.1111/sms.14138>

Cool Fact #5

This cool fact is about when you eat dinner and what it does to your melatonin levels. I have said for years, especially since publishing *Fast This Way*, that when you eat earlier, that you sleep better, but new research has come out that supports that hypothesis. This was published by Massachusetts General Hospital and they looked at the connection between blood sugar levels, timing of meal, and levels of melatonin.

And if you're new to biohacking, melatonin is the sleep hormone that you can buy and take that makes you sleep better, at least for most people. What the researchers discovered was that if you eat dinner close to bedtime, when your melatonin levels are already high, you're likely to lose control of your blood sugar and this is an even bigger problem in people who have a genetic variant in their melatonin receptor, which is called MTNR1B, which is tied to an elevated risk of having type two diabetes anyway.

In other words, if you have a hard time with your melatonin receptors and you eat dinner after the sun goes down, you're going to lose control of your blood sugar and it's going to further increase your risk of type two diabetes. This was cool because it's a randomized crossover study, so it's got good statistical strength, and it looked at 845 adults from Spain. And yes, there may be genetic differences that we don't know about yet but let's assume that they're humans.

Each participant fasted for eight hours and then for the next two evenings, they had first an early meal and then a late meal relative to their typical bedtime. What they found was that melatonin levels in participant's blood were 3.5 times higher after the late dinner. The late dinner timing also resulted in lower insulin levels and higher blood sugar levels. What the researchers found was that melatonin levels in people's blood was about 3.5 times higher after a late dinner, presumably because melatonin receptors were busy doing something else, so it's building up in the blood instead of being used in the brain.

And the late dinner timing also caused lower insulin levels, which might be a good thing, but higher blood sugar levels, and that's a bad thing. So what it's doing is it's slowing metabolism and it's

slowing it in a way that tips you towards type two diabetes and if that's not an issue for you, it's just going to make you gain weight.

What does that mean for you? Well, if the sun goes down, the fork goes down. Not everyone's going to do that all the time but if you're going to have a late dinner, don't have a lot of sugar, have a light salad and if you're going to have an early dinner, have a steak. It also means that maybe you don't want to take your melatonin supplement with food because that combination is probably bad for blood sugar control.

What I do is I eat my dinner as early as I can. I prefer to eat around 5:00 or 5:30, even if I'm in Canada and it's getting dark then. That's about as early as I'm going to do it. And then two hours before bed, I will take melatonin because it takes a little bit of time to take effect and that way, when bedtime comes, I'm ready.

Source: <https://www.sciencedaily.com/releases/2022/01/220125124032.htm>