COOL FACTS FRIDAY #26

Dave Asprey:

Welcome to another edition of Cool Facts.

Cool Fact #1

This cool fact is about a new way that your gut bacteria change your health. By now, you've probably heard a lot about your gut microbiome, in fact, you might even be tired of hearing about it, but that's because we keep learning new things that gut bacteria can do like change the gut-brain axis, change your immune system.

And since we're always figuring out this new stuff, here's something new from the University of Washington in Seattle and Brown University in Rhode Island, they figured out that your gut bacteria convert vitamin A to retinoic acid, and retinoic acid is the first metabolite of vitamin A that's required for your body to grow and develop properly. And we used to think that conversion only happened in your human cells, but this new research shows, actually, you need your gut bacteria to do that for you.

We have this sort of bio centrism where we think, "Oh, our cells do everything, but these other cells that we carry around in our body all of the time that are symbiotic with us are somehow not us," so therefore we like to take credit for stuff. And we're finding out that your gut bacteria does more and more. And those good commensal bacteria in your gut do convert vitamin A into the active retinoids that you need.

The researchers found that when they fed lactobacillus intestinalis probiotics to mice, who had a depleted microbiome that those mice could suddenly, once again, make retinoic acid in their guts. And they found that several different strains of bacteria could do that. What does that mean for you? Well, it means you might not want to take antibiotics and you definitely want to take pre-formed animal source vitamin A because it's not the same as beta-keratin. And even if you do take your vitamin A, along with vitamin D and vitamin K the way I recommend, you still need to make sure that you're getting enough soluble fiber and you're taking probiotics, and maybe even postbiotics, because that's what it's going to take for you to show up the way you want to show up in the world. The reason I care about that, I want a world full of people who are dangerous but peaceful because when you know you can handle anything the world throws at you, that's when you are the calmest and the nicest.

Sources: Cell Host & Microbe and

https://www.sciencedirect.com/science/article/abs/pii/S193131282200316X?via%3Dihub

Cool Fact #2

Our next cool fact is about how your low-carb diet could be making you depressed. If you think that staring down at a plate of lettuce and plain, grilled chicken is pretty depressing, you wouldn't be alone, but is your low-carb diet actually making you sad?

In this study at Xi'an Jiaotong University in China, researchers found an inverse relationship between carbohydrate intake and depression by looking at genetic variants between different people. In the study, they compared about 200,000 genetic variants that are associated with eating more carbs to more than 100,000 variants that are tied to major depressive disorder, and they found that high carb

intake appears to have a protective effect against depression. In other words, people who don't eat enough carbs are more at risk of becoming depressed.

What does this mean for you? This means that like all biohacks, there's definitely an upper and a lower limit and it changes by person and it changes by biological state. No, you're probably not going to become depressed if you cut carbs for a week or a couple of weeks, but if you do it for months on end, you might become depressed.

And one possible way that this happens, and this was not in the study, but from other studies, we know that the glial cells, the maintenance cells in your brain, they prefer carbs, whereas your neurons prefer ketones or fat. So it's likely that if you go on a low-carb diet and you stay on a low-carb diet, instead of cycling the way I've recommended you do for more than 15 years, well, that continued depletion of fuel for your maintenance systems in the brain, well, no wonder that could lead to depression, right?

So what should you do? Maybe you should not be a keto bro and say, "If you eat one carb every day, you're a bad person," and just chill out and say that cycling ketones makes a lot of sense. And you don't even have to do that, a moderate carb diet is just fine. If you're trying to lose weight, cut them a little bit, but don't be zero carb forever unless you have epilepsy, at which point it's probably worth it.

Sources: Nature Human Behavior and https://www.nature.com/articles/s41562-022-01412-9

Cool Fact #3

This cool fact is about how your lifestyle changes your cognitive health or your brain function more than it changes your age. Researchers at Baycrest Centre for Geriatric Care in Ontario completed one of the first studies that looked at lifestyle risk factors for dementia across your entire lifespan. In other words, is that thing you did when you were 2 years old where you ate all the birthday candles and not the cake, did that actually cause dementia 50 years later? Well, maybe it wasn't that specific, but you get the point.

This research is really cool because they looked at participants' performance on memory and attention tests, the kind of things that might affect how you show up at work and at home every single day, and they found that there were 8 modifiable risk factors for dementia. There's low education, if you had less than a high school diploma, that actually was correlated with being more likely to have dementia. Hearing loss, that makes sense because hearing loss means you have less sensory input to the brain. Traumatic brain injury, I've had lots of episodes on the podcast about that and I've had it happen to me in family members. You've got to deal with traumatic brain injury. Look at the interviews with Dr. Aman about that. They also correlated alcohol or substance abuse, high blood pressure, smoking, diabetes, and depression.

The study found that a single dementia risk factor could make your brain look about 3 years older. So it adds up because each additional factor contributes the same amount of decline. So if you were to sit down and take out a piece of paper and say, "Do I have hearing loss? That's 3 years. TBI, 3 years. Alcohol, 3 years. High blood pressure, 3 years. Ooh, I might have 12 years of extra brain aging. Oh, and I smoke. 15 years. Diabetes, 18 years." You get the point? So it really matters that you keep your brain young.

So what does this mean for you? It means that whether you're 18 or 80, you have to address your lifestyle if you want your brain to work better right now. And since no one wants dementia later in life, you might as well clean that up. But since you win on both fronts, start taking a look at what you can do to make your brain work better now because that means you'll have more brain later in life.

Source: https://www.sciencedaily.com/releases/2022/07/220713114643.htm

Cool Fact #4

This cool fact number four actually should be an uncool fact because it's bad news about America's and the world's obesity epidemic. New research shows that the obesity epidemic in the U.S. isn't slowing down at all. BYU researchers looked at long-term weight gain of more than 13,800 adults. They looked at a 10-year time period for body weight gain. More than half of their sample size gained 5% or more, and we're not talking muscle here, more than a third of American adults gained 10% or more over the last 10 years, and just under a fifth, or 20%, of adults gained 20% of their body weight or more in the last 10 years.

And then they looked at who's gaining the most weight and when. According to the data, if you're in your 20s and 30s, you would have gained about 17.6 pounds, if you're in your 30s and 40s, about 14.3 pounds, and if you're in your 40s and 50s, about 9.5 pounds. That's bad. The good news maybe is that you only gain about 4.6 pounds between your 50s and 60s, and although the research doesn't say this, that's probably because you lost 10 pounds of muscle between your 50s and 60s unless you're on testosterone hormone replacement therapy and eating enough high-quality protein. Notice I didn't say eating enough protein because eating a bunch of plant-based protein doesn't matter, that's why you have to be careful with your sourcing of protein.

What all of this research says is that if you're an adult and you gain the average amount of weight during each decade of your adult life, you'll have gained about 45 pounds, which is going to put almost everyone into the obese category. As a guy who's lost a hundred pounds and kept it off for a very long time, I wouldn't wish 45 or 100 pounds on anyone.

The study also points out that in the last 20 years, obesity increased by about 40% and severe obesity doubled. We have a serious metabolic problem right now and it is caused by many different things, including some things that you wouldn't think about.

So what does this mean for you? Well, it's pretty clear by now that eat less, move more is dumb because it doesn't work. It didn't work for me, it's never worked for most people because it goes against nature. The changes in our food supply are changing your weight and out of control stress hormones are a part of the problem.

So what might you do? You might go to fastthisway.com and take the fasting challenge. It is totally free, more than 70,000 people have learned how to skip breakfast and have less hunger that way instead of more, that would be an easy thing to do.

And you might also look at one of the things that lets you track your blood sugar, continuous glucose monitor like levels. You could look at a gut health thing like Viome, which is going to do incredible things for telling you what your gut bacteria are doing.

Stop eating seed oils already. Take a look at making cooking easier and faster at home so that you don't eat out as much and you can avoid those seed oils. I'm a big fan of the Brava oven.

And you can look at things like turning off your lights earlier, dimming things, maybe wearing the TrueDark glasses because sleep is intimately tied to weight gain, and bright lights at night provably lower your ability to handle blood sugar.

If that all feels like too much, just pick one. The bottom line though is that you are going to spend a huge amount of money on buying new and bigger pants if you don't do something now.

Source: https://www.sciencedaily.com/releases/2022/06/220623140610.htm