

## COOL FACTS FRIDAY #27

Dave Asprey:

Welcome to another edition of Cool Facts.

### Cool Fact #1

This cool fact is about how saving your poop could save your microbiome. You probably by now have figured out that eating glyphosate-soaked modern diets, and taking antibiotics and eating cows that eat antibiotics might mess up your gut bacteria. And, over the last couple decades, we've had much bigger problems than ever before. So that's some of the links to type two diabetes, allergies, digestive issues, asthma, and scientists keep looking for ways to fix it. And we've made some progress with prebiotics, probiotics, postbiotics, but lately we've talked about rewilding the human microbiome, and this is really a topic of hot debate from medical, ethical, and evolutionary perspectives.

And the reason that this research makes my inner child happy is that about 10 years ago, I said, what would happen if I had perfect poop from earlier in my life before I ever took antibiotics and I just had it in the freezer called a poopsicle, and of course, then I could reintroduce it after I had antibiotics.

Wouldn't that be smart?

Well, it turns out Harvard Medical School and Brigham and Women's Hospital are proposing now that you bank samples of your own gut microbiota, but they don't say poop, I don't know why. And they say do it when you're young and healthy for use later in life. They're proposing this because using fecal donor transplants for different conditions gets mixed results. Researchers though, are printing out things about logistics for storage time and preservation, resuscitation and cultivation. In other words, a 25-year-old poopsicle might not be very active. So I am quite hopeful that someone's going to solve these problems and that we'll actually be able to take a snapshot and go back in time.

Source: <https://www.sciencedaily.com/releases/2022/06/220630114518.htm>

### Cool Fact #2

This cool fact is about sticks and stones. Yeah, they don't break your bones, but maybe they do actually hurt you. You ever wonder what's happening behind the scenes when someone insults you, even if it's just a little one? Well, there's a new study, looking at the connection between emotions and language to see what happens when you use specific words. I cared about this study because as a New York Times bestselling author, I really carefully choose words that evoke specific emotions or more specifically don't evoke specific emotions, so that they're more absorbable when people read what I write.

Well, how can I not care about this study? It was published in Frontiers in Communication, and it included 79 women hooked up to EEG and skin conductance tests. Now skin conductance measures micro sweat, or changes in how well electricity flows over your skin. As soon as you feel a little bit of stress, even stress that you won't pick up in your brain, your skin will change. In other words, the issues are in the tissues. Your body does it before, and even if you never think about it. And EEG measures brainwaves the way I do it, 40 Years of Zen, my brain upgrade center.

So the researchers evaluated participants' brainwaves and they read three different kinds of statements. One was an insult like Paula is an idiot. Another one was a compliment like Paula is amazing. And a neutral statement like Paula is a student.

And get this, regardless of whether the insult was about the participant themselves or someone else, it immediately captured the brain's attention and not so surprising much more so than the positive

statements. This is direct evidence of your brain's negativity bias. The researchers found that insults don't lose their power after you repeat them. It's like a mini slap in the face each time the participants read that negative commentary.

What does this mean for you? Well, it means that when you hear insults, whether they are towards you or towards someone else, even one of those idiots in office, well, they have a lasting impact. So maybe a little bit more positivity is important in your life. And if you are following someone on the news and they're consistently saying bad things about other people, instead of reporting on what happened without judgment, it's actually triggering your threat response, which by definition, hijacks your ability to think about things.

This is one of the reasons that I long ago turned off the news. And even when I'm reading news, if it's one of the highly biased in either direction, types of opinion pieces, I just stop reading it. I stop listening because it is addictive. Just like smoking, just like alcohol, just like all the other stuff you could do, this study shows why. Into the day, you want to have enough energy and enough power to be kind because only the most dangerous person can completely ignore insults and do the right thing anyway.

Source: <https://neurosciencenews.com/verbal-insults-response-21060/>

### **Cool Fact #3**

This cool fact is about how your friends smell. You probably think you choose your friends based on similar interests or similar beliefs, but I've got some bad news for you. There's a hidden factor that comes into play. Researchers at the Weizmann Institute of science in Israel discovered that humans are more primal in their friend choices than we really thought about previously. Aside from enjoying the same hobbies and laughing the same jokes, it turns out you choose your friends based on their smell.

In a series of experiments, investigators recruited groups of same sex friends and harvested their body odors to determine if people that enjoyed spending time together had similar sense. Using objective data through a device called an electronic nose along with subjective data, through a group of independent human smellers, imagine putting that on your resume. The researchers found that more often than not, people smelled a lot like their friends. And to take it further, the investigators asked people to interact with one another. They found that people with similar sense experience more positive interactions, predicting social bonding through body odor.

What does this mean for you? Well, first, if you think you're in charge of all of your decisions and all of your choices, you are probably not. There's an automated ancient part of the operating system of your meat that is doing all sorts of crap. It's stealing your attention. It's making you find someone attractive because of how they smell. And it's not telling you that it's doing that.

One of the things about biohacking that's awesome is we're getting the data and we're learning things about how our operating system works, so we can consciously change it. As an example here, maybe if you wear a huge amount of perfume and you have a hard time finding the right friends, maybe it's because you are hacking that system without knowing it by smelling like Fabre's or whatever the hell endocrine disruptors you like to spray on yourself. So maybe the moral of the story is don't wear the whole bottle of perfume.

What else are you doing that blocks this? If you are taking hormonal birth control, you've also highly modified your body odor as well as caused a bunch of other health problems for you. So yes, you should shower. You should have some personal hygiene, but just understand your body's doing a lot of stuff automatically. And when we make changes to our environment, which is the very definition of biohacking, but we make those changes without even looking at what they do to us. Is there any wonder

that sometimes life goes sideways? So, there you go, use some unscented soap, have better friends, who would've thought?

Source: <https://www.nature.com/articles/s41586-022-04722-0>

#### **Cool Fact #4**

This cool fact is about how brain juice supports memory in old brains. Say what? What is brain juice? Well, it's actually cerebral spinal fluid, and this is a clear, slightly viscous fluid that's inside your spinal cord and all around your brain. What it does, in addition to cushioning the spinal cord and brain, is it provides nourishing compounds that keep them alive. And your cerebral spinal fluid ages as you age, and it loses some of the nutrients that support cognitive health and it picks up toxins as well. In a new study out of Stanford, researchers found that infusing cerebral spinal fluid from young mice directly into the brains of older mice, improved their memory function. Even better yet, the researchers found a protein called fibroblast growth factor 17 or FGF 17 to be the active ingredient in the young cerebral spinal fluid.

FGF 17 increased the proliferation and differentiation of a type of cell in the brain called oligodendrocyte. The reason that matters, if you're still with me, is that oligodendrocytes are the cells that produce the myelin sheath, that insulating lining of brain neurons and other parts of your nervous system. In other words, if you want to have thicker, healthier, spongier insulation so that you can carry electricity better in your brain, you need good oligodendrocytes which means you need FGF 17, which means you might want to steal some cerebral spinal fluid from a young person.

This is really interesting because other studies have hinted at what happens when you replace your blood plasma with that of a younger person. And it turns out there are some anti-aging effects likely because of removing toxins and because we're adding other, as yet unknown, active ingredients, most of which are peptides or growth factors.

What we're doing now is we're actually picking apart the signaling networks that our bodies use to tell themselves what to do, so we can tell our bodies what to do. I don't know about you, but I would love to take a nice big hit of FGF 17, and I'd be perfectly happy to have it injected in my spinal cord because I've already had my stem cells and exosomes injected in my spinal cord several times, because I want my brain to last a very, very long time. So, well, when I'm incredibly, incredibly old, I'll still have the brain I have now, so I can say, I told you so, I told you so, to people who were too young to actually hear me say, I told you so, when I first said it.

Source: <https://www.science.org/doi/10.1126/sciadv.abn0154>