

Dave Asprey:

This episode of Bulletproof Radio is brought to you as a gift from me. There is no sponsor, because I just want to get this out there as fast as I can record it, because it's about coronavirus, and it's spreading quickly. The odds, if you listen to my show, and you do some of the things I talk about, are that you're going to be okay, so you can take a deep breath.

Dave Asprey:

However, the odds of everyone you know, including your parents, including your elders, including people you know, who may be sick or have weak immune systems, their odds are not as good, especially if everyone gets sick all at once. I'm doing my part right now to stay home, keep my family at home, and see if we can delay the spread of this stuff, and at the same time, spread some powerful information that otherwise, I wouldn't have gathered for you about how to control IL-6, which is the primary inflammatory cytokine, we think that's out there for a while.

Announcer:

Bulletproof Radio: a state of high performance.

Dave Asprey:

You're listening to Bulletproof Radio, with Dave Asprey, and there is no cool fact of the day, because this is a special edition of Bulletproof Radio, that I've put together for you, and I did it on the fly.

Dave Asprey:

It's short and this is what I would do if I was looking at hacking Interleukin 6, which we now understand, based on a week-old study out of Wuhan, that this is one of the ways that the coronavirus is killing people by causing a cytokine storm. It's the storm of inflammation.

Dave Asprey:

And I'm going to go through in this podcast, relatively quickly, and cull you a list of things that I would do, if I had something that was raising my IL-6 levels. Yes, coronavirus could do that. I want to tell you, nothing on this list that I know of, has been tested against coronavirus, or COVID-19 specifically whatsoever.

Dave Asprey:

Most of them have been tested in humans or in animals. In fact, all of them, unless I call it out otherwise, in at least some cases, to lower or inhibit IL-6. So if you want to stop a cytokine storm, this is your list of big guns. You could take these before or even during an infection, if your doctor says it's okay.

Dave Asprey:

Would I take these? Would I give these to my family? Abso-fricking-lutely, and that's why I'm sharing it with you. Please do not go out there and say, "Dave said that one of these herbs or L-glutamine is going to cure coronavirus." No, it's not. Your immune system is going to do that. I just don't want your immune system to get too active while it's doing that.

Dave Asprey:

If you have suggestions for this, please put it into the comment thread. Please share them on Instagram. I really want to know more, but this is the kind of biohacking perspective that's oftentimes missing. People stand up and say, "There is no evidence that X." News flash: no one knows how to cure a coronavirus, so what are we going to do? We're going to be better than average. That said, here's your list.

Dave Asprey:

This is going to be about how to hack coronavirus. No, I don't know how to cure it, but we know some things that it does, and here's some thoughts about what you can possibly do about that. One of the things that happens in it is, it's causing damage to people's hearts in a lot of people, not just lungs, and it seems to do this through increasing inflammation beyond what would be normal, what we call a cytokine storm.

Dave Asprey:

And a new paper that came out a week ago in China, called [Clinical Predictors of Mortality Due to COVID-19 Based on An Analysis of Data of 150 Patients From Wuhan, China](#), came out, and provided some really interesting information.

Dave Asprey:

It looks like, oh, around 33% of people are coming out of it with respiratory failure and heart failure damage, which is useful, and they provide the name of the inflammatory cytokine that seems to rise, that's causing the problem, which is Interleukin 6, or commonly known as IL-6. This is a major clue.

Dave Asprey:

Now, no one has clinical trialed any of the things I'm talking about. Actually, that's not true. Some of them have clinical trialed, but not for corona. But we know these are things that actually affect inflammation via changing IL-6. So I'm going to talk with you about, "Hey, you might get exposed to a virus that raises IL-6, and that's one of the mechanisms that it causes damage with."

Dave Asprey:

So what would you want to do, if you might be exposed to that, or someone you care about would be? One thing you could do, you could wait until a drug or some other thing was clinically trialed, double-blind studied, maybe six months from now and decide to do that.

Dave Asprey:

Or you could do what I do as a biohacker and say, "Well, given what we know, what is the most logical way that I can be not average?" So if you can get a little bit better than average results, great. You might actually, though, get worse than average results. It's just, you've got to play the odds, and in my opinion, my exclusive non-medical opinion, that you are paying nothing for, and therefore should not trust until you talk to your doctor, or anything else.

Dave Asprey:

Here's what I would do. I would look at the different things that affect your IL-6 levels. And you've already heard me talk about some of these in my other coronavirus posts, or just in my biohacking posts around inflammation in general, but there are studies out there about how you can inhibit IL-6.

Dave Asprey:

It turns out some of them are herbal. Sage, oregano, bay leaves, are three of the things that work. You can do an herbal extract in alcohol. You can also throw some Bay leaves, tons of oregano and sage in a soup, so increasing those things is a way to inhibit IL-6. You can also take a oregano oil, which probably does that, if not oregano extract would.

Dave Asprey:

And I don't know about taking sage and bay leaf extracts, or essential oils, but there may be some efficacy there. There's a study that says resistant starch, and what's really going on there, is anything that improves your gut bacteria is likely to increase butyric acid, which decreases inflammation, which is going to have an effect on IL-6. There is a study about resistant starch.

Dave Asprey:

My blend of resistance starch is, the one I put together for Bulletproof, is what I take on a regular basis. And that one contains acacia gum, larch arabinogalactan, and it also contains hydrolyzed guar gum, because there were studies that showed that those things break down into feeding the good guys in your gut. And you want a healthy gut.

Dave Asprey:

You can also do the probiotics, bacillus infantis, Saccharomyces boulardii, which is a yeast, Lactobacillus Casei, Lactobacillus salivarius, and those can be good for you. Another something that you've heard me talk about on the podcast awhile back was trehalose, T-R-E-H-A-L-O-S-E. Trehalose is a sugar that increases hydration in your tissues. It's good, unless you've been in a hospital, and you have C diff, in which case it makes C diff worse there.

Dave Asprey:

There's good evidence for ECGC, also known as green tea extract. Vitamin D-3 as a study for lowering IL-6. One of my favorite mitochondrial boosters is one that I helped to put on the market, called PQQ, is in my Unfair Advantage formula that's been around for, I believe, seven years now. PQQ is shown, in a study, to reduce IL-6. News flash, almost anything that increases mitochondrial function is going to help you with IL-6, but not everything.

Dave Asprey:

You also might want to look at zinc and magnesium. These are on the top five lists of supplements I think you should take every day, anyway. Those also have studies showing they reduce IL-6.

Dave Asprey:

And now here's a big gun. This is something that I actually take when I fly, especially during cold and flu season, whether or not it's corona cold and flu season. This is something called Andrographis. And Andrographis is an herb, and out of dozens and dozens of plants that have been tested, this is something that inhibits IL-6 very potently, in fact, more than some prescription drugs.

Dave Asprey:

You can get it in combination with echinacea, and that combination was studied in one or two trials, and it actually reduced respiratory tract, viral and bacterial infections by, I believe, 20%. And it also reduced the severity of them.

Dave Asprey:

So now, you could say, "Am I going to take all this stuff?" No, you're going to take some of this stuff. Yes. Would Andrographis probably be a good idea? Yeah, but the list isn't done yet. There's more you can do.

Dave Asprey:

Fish oil, that's an obvious one. I would probably tell you that fish roe or krill oil are superior in almost every single way. You've heard me talk about those, I formulated things. Licorice is somebody that supports adrenals, which is probably how it works.

Dave Asprey:

Curcumin, which I use in one of my formulas, that has rare Chinese herbs that affect inflammation in the body. And my formula that contains curcumin is called Curcumin Max, but it's got some other goodies in there that aren't actually on my big list here.

Dave Asprey:

There's another thing called black cumin seed oil, which is all over the place. I just saw it in the Middle East, just in common store shelves, and that stuff is shown in a study to reduce IL-6 and other inflammation. It's also good for people who have excess histamine.

Dave Asprey:

Something that's good in the anti-aging mitochondrial enhancement circles, cognitive enhancement circles, is called Fisetin, which is in a formula I put together called Smart Mode. Fisetin is shown in a study to do this as well.

Dave Asprey:

Boswellia, which is, I also include in formulas, is a common anti-inflammatory herbal that is really worth doing. One of my favorite but unknown antibacterial, antiviral compounds, that comes from olive oil, is called hydroxytyrosol.

Dave Asprey:

You can take olive oil to get it, or you could take little capsules of Hydroxytyrosol, that have hundreds of times more of this precious antioxidant than olive oil does. I'd do both.

Dave Asprey:

You could also do luteolin, which is in many formulas for eyes, I believe, including mine. And there's also quercetin, and of course, you normally take that with vitamin C. There are also studies on resveratrol.

Dave Asprey:

So that's kind of a long list. I can put all these together for you in a post, but here's the deal. You can do things to control your IL-6 levels, before and after you get sick. So when you're sitting there in an emergency room, which may happen, if someone you care about is, and someone looks you in the eye

and says, "There's nothing we can do." Well, I just gave you a list of about 20 things that you can do, that may not be there, and you need to have that on your list.

Dave Asprey:

If you want to know my top three things to do here, I would probably look at resistant starch, i.e., I'm going to call it just prebiotics in general. And I've had huge results in my own use of prebiotics. And you do that, because it affects you on so many different levels, including feeding all the good guys in your gut.

Dave Asprey:

No conversation would be complete without Vitamin D-3. I would also add, even though there isn't a study that I found, Vitamin A and vitamin K2 should be taken with it, and I put those together in a supplement, but this is just standard.

Dave Asprey:

Every functional medicine doctor knows that this is a good thing for our many different levels, and I do believe that Andrographis should be on your list of things to pay attention to, especially if you're getting sick, or after you've gotten sick. And I really, really like the curcumin formula that I make, but you get to pick whichever curcumin you want.

Dave Asprey:

I will caution you, however, curcumin that comes with black pepper extract is not good for you, and you should avoid that. The reason is that black pepper extract is shown in studies to poke holes in your gut, which lets bacterial toxins called lipopolysaccharide enter you, and cause inflammation.

Dave Asprey:

The whole point is to stop inflammation, and since this may be a really important hospital grade situation, don't mess around poking holes in your gut lining, using black pepper extract. Of course, I don't use that in my formula at all.

Dave Asprey:

So there's your top three there. If you could throw some boswellia in there, you're probably going to like it, and anything else from that list? Good, good, good.

Dave Asprey:

All right. What are the things you could do that might increase your levels of IL-6? Well, I hate to tell you, I've been saying this in every one of my posts about coronavirus, if you're eating fried stuff, and you have lots of sugar, it is going to increase inflammation and IL-6. Eating foods that are high in the glycemic index are not going to be good for you either.

Dave Asprey:

Other things. Chronic insomnia is going to be a big issue, and this is something I dealt with for a long time. I would just be really tired during the day. Probably because I didn't like to sleep, probably because I slept like crap, because I lived in a toxic mold environment.

Dave Asprey:

Well, you need to fix your sleep. So go to bed early, wear glasses. Yes, I started a company called TrueDark. I'm going to tell you, wear glasses if they improve your sleep quality. I doubled my deep sleep when I put on my TrueDarks, and I measured it on my ring, and I'm happy to say it, you may have zero results from that, but given what I hear, I think that's a really good idea. Likewise, melatonin supplementation, if you need it.

Dave Asprey:

We also know that over-training or long endurance training is not good for IL-6. Because? Well, that's how it is. Being fat, smoking, drinking alcohol, being stressed for all sorts of reasons, environmental reasons, family reasons, temperature reasons, too much stress is a bad thing.

Dave Asprey:

Also, if you've been exposed or are being exposed to toxic mold, your risk of getting any disease goes through the roof, including this one, and your odds of fighting it off go down. So if you're dealing with toxic mold, you've got to do something about that. The best thing you can do is get out. If you can't afford to get out, air filters, fixing the leaks, don't disturb the mold. Look at my company called Homebiotic, which has been around for five years, that has a \$29 probiotic you spray around your house.

Dave Asprey:

It's not going to fix toxic mold, it just eats toxic mold as its fuel source, and is shown to prevent it from growing. But seriously, if you're trying to fight off a virus and you're in a moldy house, get out, stay with a friend, do what you can do. It is not the time to fight mold in a virus on two fronts. It's super important for you.

Dave Asprey:

One of the interesting things that I came across, in looking what inhibits IL-6. Is calorie restriction, i.e., Fasting. This is really controversial during the coronavirus, because, of course, there are no studies about any of this.

Dave Asprey:

So I'm just looking at what happens with IL-6, and I don't think you want to be too fasted, going into a stressed state. So if you're fasting enough that it's increasing any stress on the body, it might be too much. And you might want to just do a shorter, intermittent fast, rather than a multi-day fast.

Dave Asprey:

And if you're going to be flying, and you're super tired, you worked out, maybe have breakfast that day. Just be a little bit more kind to yourself. Because yes, it's good to be in ketosis, because of its anti-inflammatory effect. However, there are studies that show that having some carbohydrates, some glucose present, is good to fight off a virus infection, but having glucose present is bad, if you have a bacterial infection.

Dave Asprey:

And what oftentimes happens with viruses is, you start it with a virus infection, which means having some glucose and some ketones present might be a good idea. But then, as soon as it kicks over to the pneumonia bacteria type of infection, then cutting the carbs and being just in ketosis would be the best strategy. So, like I said, caloric restriction, there is a study, and I think there's a lot we don't know about that.

Dave Asprey:

Good news is, there are several studies supporting low level light therapy. You know that I'm a huge fan of that, one of the early voices in the movement around using LEDs and lasers for health, but not for the opposite of that.

Dave Asprey:

You'll also like knowing that broccoli sprouts, or sulforaphane, are shown to inhibit IL-6, which is a good thing I wrote about those in Head Strong, as something that could be particularly helpful.

Dave Asprey:

Another thing that I do, that a lot of people don't know about, even though I wrote about it in Superhuman, is somebody called melanocyte-stimulating hormone, or MSH, or melatonin. And this is really interesting stuff, because it actually does reduce inflammation, especially autoimmune type of things. It also gives you a tan without very much sun. So I take it for its autoimmune purposes, and because, based on Head Strong research, I believe that having extra melanin inside your eyes, inside your brain, can have cognitive and biochemical effects.

Dave Asprey:

But regardless, I don't mind having a nice tan without a lot of work, so a little bit of injectable MSH, which is a peptide, is probably a good idea of something that certainly I do, although, like I said, nothing on this list is tested for coronavirus specifically. This is, "Hey, something, maybe coronavirus is spiking my IL-6. What would I do to manage that inflammation, so I don't get the inflammatory cytokine storm?" This is just straight up hacking it.

Dave Asprey:

Another one of my favorite supplements of all time, that could be beneficial here, would be, drum roll, testosterone. Because testosterone can inhibit inflammation as well. Some of these studies are talking about IL-6 in animals, but hey, we're talking about what would you do, if you had to hack a problem, what's likely to work, versus what is proven 100% to work. There is a study is on mice about glycine, which is the primary amino acid in collagen, being beneficial. I definitely think that's worth doing.

Dave Asprey:

Bromelain, which is a digestive enzyme that comes from fruit, is also something that is probably worth your time. Although you might consider serrapeptase, even though there isn't a study for that, I think it's likely to work better.

Dave Asprey:

Another thing that could be beneficial, that is actually in Super Human, is called low dose naltrexone, which is a general anti-inflammatory, that could have IL-6 specific inhibitory effects. Or alpha-lipoic acid

is another really common one that people take for detoxing metals, and for supporting the liver. I definitely think that's worth taking. I'd take that stuff every day, just in case. There's evidence that astaxanthin, which is in my eye, formula is good at inhibiting inflammation. And it does that by improving human neutrophils.

Dave Asprey:

One of my favorite herbs of all time is rosemary. We grow so much of it in my garden here, and in rosemary, you'll find something called rosmarinic acid. And it actually regulates inflammatory cytokine production, at least in tests where they're inducing inflammation, using cadmium. And there are other things that show that rosemary is good for you on many different levels.

Dave Asprey:

You can actually take rosemary extract capsules, or eat a lot of Rosemary, I actually do both. I think it's really worth your time to do that, assuming you don't have allergies, or things like that.

Dave Asprey:

If I was going to be hospitalized or I was very, very ill and working on fighting things, so that I could get stronger, really, you have to talk about L-glutamine. L-glutamine can reduce IL-6 directly, at least in mice, and probably does it in humans, and it makes you feel better really fast. There is nothing that will throw you out of ketosis faster than L-glutamine, except for a Twinkie.

Dave Asprey:

So just recognize that if you're saying, "Why did my ketones drop if I took glutamine?", that's why, but that's okay. Helps in brain acting, and you'll still have some ketones present. But for healing the gut, and reducing a cytokine spread, if it was me, and I was in a hospital, and I was getting a cytokine storm, I'd be looking to get my 20 grams of glutamine, knowing that there are no studies whatsoever about coronavirus and any of the things I talked about.

Dave Asprey:

This is what I would do to affect something that might kill me, whether or not it's caused by coronavirus, and this is the difference in biohacking. If you do five of these things on this list, are you likely to be better than average, or likely to be worse than average?

Dave Asprey:

Only you can decide that. That's up to you, but I think this is really, really, really worth paying attention to. So think about it. It's not that hard to do this, and I want you to understand this isn't a complete list.

Dave Asprey:

There are probably many more things. We haven't talked about pulsed electromagnets, there might be studies on that. But look, you're not helpless, and you can make yourself stronger, you can make yourself more resilient, and you can do that today. You can put down the cookie, put down the bat oils. Don't have so much sugar, don't have grains.

Dave Asprey:

If you're smoking, this is your wakeup call. Smokers have a much higher chance of dying. This is why so many people in China died, because the smoking is rampant there. So you got to stop.

Dave Asprey:

And if we're talking about smoking pot, you got to stop that too. You can eat it instead. Vaping probably isn't a good idea. And if you're drinking alcohol, just stop for a few months. It's worth it.

Dave Asprey:

While you're out at work on all these other inflammatory cytokine things, and then, if and when you do get coronavirus, maybe this will make you better than average. That's my hope.

Dave Asprey:

If you like this, check it out on DaveAsprey.com. I'll post the whole list for you.