Announcer:

Bulletproof Radio, a state of high performance.

Dave Asprey:

Today's guest has been a practicing physician for nearly 50 years in both conventional medicine and what you could call alternative or functional or integrative medicine. He's been a primary reference for my book, Headstrong, in his work on mitochondrial biology, and is someone who knows more than you might expect on how viruses operate inside the body and what you can do about almost any virus in the body. I am talking about Doctor Frank Shallenberger, who is a world class expert in anti-aging and Ozone. Frank, welcome back to the show.

Dr. Frank Shallenberger:

Thanks for a really nice intro, Dave, appreciate that.

Dave:

It's more than earned. I talk a lot in some of my books, especially my anti-aging book that one of the reasons that we owe it to ourselves to live longer than we're supposed to is that we can finally have enough wisdom and enough energy at the same time in order to share it.

Frank:

Good point.

Dave:

I think you live that. And I'm soaking up your wisdom any time I get a chance. I'm going to just have to ask, coronavirus and Ozone, what are your thoughts?

Frank:

Well, okay, so how much time do we have?

Dave:

We've got at least an hour.

Frank:

There's a couple things. The first thing that comes to my mind is, I don't know that most people understand how this works, how this whole viral things works, because I keep hearing people talk about how to kill the virus, when the reality is you can't kill something that's not alive, right? And a virus isn't alive. And so, a virus can't make energy, it can't use oxygen, it can't replicate. It's a piece of inert material, it can't do anything, except what it can do is it can be introduced into cells and then use the genetic material in the cells to replicate itself.

Dave:

I like to think of it as sort of a software program, but it doesn't have a computer to run itself. It needs a cell to run itself on, is that a good analogy?

Frank:

Well, yeah, it can't replicate on its own. It needs my cell's genetic material and energy and ATP and such to be able to replicate itself. And then, so I've got a cell in there, it's infected with the virus, and the cell basically is turning into a viral factory. It's just cranking out more viruses, which ultimately get released outside the cell into the interstitial space. Then infects another cell, and on and on you go. So, basically what you're doing is you're making viral factories one after another. And what you can do is you can do things that deactivate the free virus, which is good. But what you ... The way we actually get over a viral infection is by killing the factories.

Dave:

The infected cells.

Frank:

Yeah, so you've got to have a way of killing the infected cells without killing the cells that aren't infected.

Dave:

How do we do that?

Frank:

You do that, in my mind, by upregulating what certain cytokines that activate what's called the innate immune system. They call this the innate immune system. It's also known as the TH1 immune system. But this is the one that activates natural killer cells and cytotoxic CD8 cells. And those are the items that actually kill cells. Antibodies themselves can kill the virus, but what kills the factory is the innate immune system, so you have to have something that will stimulate the innate immune system in patients. And I tell my patients, for example, the guy that gets exposed to the virus and gets 'infected' by the virus, but never has symptom one, is the guy with the really good innate immune system at the time of exposure.

Dave:

How do you have strong innate immunity so that if you get infected, you just don't go to the hospital?

Frank:

Yeah. So, I mean, that's the idea, try and keep your innate immune system up as much as you can. One of the problems with that is that it's very sensitive to stresses, anywhere from anxiety type stresses, like mental stresses, but also to environmental changes, anything bad sleep, whatever. Whatever's stressing your system out, that part of your immune system can be down regulated pretty quickly.

Dave:

Are there any supplements, drugs, breathing exercises, magnets glued to the top of your head? I'm just kidding on that one. But basically, if you had someone who came to you and said, "I got a bad night's sleep, I'm hungover, and I'm going to go hang out in a coronavirus clinic today," what would you do based on 50 years of helping people?

Frank:

Okay, so what I'm definitely going to talk about is Ozone. So, we'll come back around to Ozone. But one thing that's a pill that you could take would be one of the mushrooms.

Dave:

Which one?

Frank:

I'm thinking Shiitake, Maitake.

Dave:

Not, Cordyceps?

Frank:

Cordyceps, yeah.

Dave:

Okay, I like the Australian versions of those, the Cordyceps species there.

Frank:

Astragalus is really good for this too.

Dave:

Yeah, Andrographis?

Frank:

Mm-hmm (affirmative).

Dave:

Okay.

Frank:

Yeah, so all of those things, I think during a flu season are a pretty good idea to take, especially if you're traveling a lot or you're not getting the sleep that you want to get and so forth and so on, and you feel kind of stressed.

Dave:

So, you would tell that person who is in a weakened state who is going to go into an environment where they could get the virus, "Okay, you want to be taking those supplements." Was there anything that they should do that morning? Other than maybe put on a mask so you don't breathe it in, don't touch your face, and wash your hands, and all that kind of crap?

Frank:

Yeah, I think, you know what knocks viruses out, just destroys them is zinc, topical zinc.

Dave:

Nice, okay.

Frank:

So, I like these little lozenges that you can suck on. And you can more or less suck on them all day long if you want. But while they're slowly dissolving in your mouth, whatever virus might be in your mouth is going to get deactivated by that zinc.

Dave:

Zinc lozenges definitely have merit, and just zinc itself, as we understand more about how the virus is getting into hemoglobin and cells and things like that. It seems like zinc is just a no-brainer at this point. In fact, something else besides Ozone I wanted to talk to you about is you have been throughout your career into oxidative medicine, basically how do we make mitochondria better at turning air and food into electrons? And you've talked about intravenous hydrogen peroxide. In fact, I did it 20 years ago. I had Lyme that I thought was ... Actually, I had Lyme and mold, and I thought the problems were from Lyme disease, but the problems were from toxic mold, as they are for many people who have Lyme.

Dave:

And I did intravenous hydrogen peroxide in Santa Rosa. But it was hard to get there, and I'm not sure that it did very much. And I ended up switching to Ozone Therapy. You've since then though said, I think breathing hydrogen peroxide in a vaporizer or a nebulizer, at least I've seen it written with your name on it, so I'm going to assume you said it, that inhaling hydrogen peroxide in low doses as a vapor was as effective as intravenous. Should I be walking around with a little spritzer of hydrogen peroxide if I'm in a hospital full of sick people and spritz in my mouth every now and then?

Frank:

That would be a good idea, but I don't know that you could really breathe that without gagging.

Dave:

Okay.

Frank:

You sort of have to put it in what they call a nebulizer.

Dave:

Correct.

Frank:

You know what that is, and it's going to break it down into teeny weeny little bubbles that will be okay in the bronchial tract and won't be irritating.

Dave:

I have a little battery powered nebulizer I've had for years to not get sick when I travel, and you can put glutathione and things in there, which for people listening, you can get something that attaches to a little air compressor that pumps air through it, you can use oxygen. And they run about $40 for a little nebulizer. And you add some hydrogen peroxide to it, but that's hard to carry around. The one I have looks like you're vaping. So, they don't like you doing that in hospitals either, unless they know what

they're doing. But that might be something to consider. But you're saying that that's just not convenient enough compared to a zinc lozenge. What about in the nose? Colloidal silver, is that useful?

Frank:

Yeah, you know, I'll do that for myself. They have these silver sprays, nasal sprays, and I'll take it on the plane with me, for example.

Dave:

Me too, yeah. Okay.

Frank:

And just before I get on, and maybe if it's along flight, in the middle of the flight or something.

Dave:

Okay, so that's how you'd stay well, okay.

Frank:

Yeah, well just you never know, that's all.

Dave:

Yeah, I fly ... At least, I'm on the road about 150 days of the year in a normal year, not right now. And I used to have chronic sinusitis. So, I had serious problems with this. I became very militant about that. I don't have to be as militant about that because I just don't get sick very often at all anymore. But it was a big challenge to keep from getting sick, so I'd have the nasal spray every time I'd fly and all that. And I think as people age or at times when there's a lot of crap around in the air, it's just good general practice.

Dave:

So, you like colloidal silver and nasal spray. You like topical zinc in the throat. We want to increase innate immunity, and we want to turn on the TH1 system, which is the innate system. So, let's get into Ozone Therapy. I mean, your book, The Ozone Miracle, and this is what we talked about in your last interview. So, if this is, you're new to Ozone Therapy, you're like, "Dave, what are you guys talking about?" In that case, you definitely want to hear the last interview, which is interview 524 with Doctor Shallenberger. But the basics of this is that ozone can help with all sorts of stuff in the body. Can you walk people through why that works? When I say all sorts of stuff, I'm not kidding. So, Frank, kind of give new listeners a picture of what Ozone Therapy can do broad spectrum. And then we'll zoom in on viruses.

Frank:

Let's see if this is a good explanation. It's a thing called the signaling molecule. So, it sends a signal. It turns out that the body does make actual gases. We always think of the body making these liquids and the liquid, the molecules are doing something. But it also will make a gas. And these gases can be what we call signaling molecules. They signal things to go on in the body and in the cells, that without that signal wouldn't go on that well. And what's cool about ozone is that it signals all kinds of systems to do all kinds of things. And so, that's why we can use it in so many different areas.

Dave:

So, your cells make a little bit of ozone themselves. And as well as hydrogen peroxide, your natural killer cells will do this to, to envelop any invader. Do your 11cells see the virus as an invader? Or do they just see an infected cell as an invader?

Frank:

I think they are ... Look, I don't know. But I think the cell, the innate immune system cells, these cytotoxic CT8 cells, are able to detect a cell that's sick. That cell could be sick from a virus, but it could be mutated, it could be sick from a carcinogen, you know? A toxin, a petrochemical, whatever. But it can tell. The cell, when it's sick, is going to put out some kind of signal that those white calls can recognize, and they just kill it as soon as they find that signal.

Dave:

I'm still thinking of viruses as sort of if someone walked around sprinkled USB drives everywhere. And then the cell's like, "There's a USB drive. I'm going to pick it up and stick it in." And all of a sudden, the cell is a USB manufacturer. So, these special cells, the CT8 cells, the NK cells, they're going to go around, they're going to spot the cells that are doing that, and they're going to blow them up. And they're going to ideally blow them up without getting the virus themselves, because CT8 cells don't do that. Good picture?

Frank:

Yeah, that sounds right.

Dave:

Okay.

Frank:

They're going to make certain cytokines and the cytokines will stimulate the NK cells that stimulate the CT8 cells and that's the balance.

Dave:

So, who wins from ozone then? Because the CT8 cells are going to make ozone, now I've just introduced a bunch of extra ozone into my body, by the way, not by breathing it. If you guys are listening to this going, "What are you talking about?" You have to either put it in your blood through your skin, or basically up your butt.

Frank:

Yeah, any place but through the lungs.

Dave:

There you go.

Frank:

And what ozone will do, and we know this, this is all good, published stuff, really strong data. We know that ozone upregulates the innate immune system.

Dave:

Okay.

Frank:

And it does that by stimulating these molecules called cytokines. You know, what a lot of people ... Dave, I'm not sure that people understand that when you get an infection ... This could be a bacterial infection too. But when you get an infection and then you're over the infection, I think a lot of people think, "Well, that bug must be out of my system now." That's just not true. If you get a strep infection or a mycoplasmal infection or whatever you get, after the infection's over and you're well, it's still in your body.

Dave:

Interesting.

Frank:

Yeah, it doesn't go away. And what happens is, your immune system recognizes it, understands it, and corrals it, sort of puts it in solitary confinement. So, it can't really do anything, it's holding onto it. But think of this, if you just go in, say with an antibiotic or something that directly destroys the bacteria or the virus, you still have to have that system to contain it. Otherwise, you'll never get over it.

Dave:

Okay, so-

Frank:

And that's the point.

Dave:

It's all about immunity, okay.

Frank:

Yeah, you could take all the antibiotics in the world, AIDS taught us this. You can take antibiotics all in the world, you'll never get over any kind of infection if you don't have an immune system to eventually take charge.

Dave:

All right. So, we take ozone, and then the ozone gives us a stronger innate immune system, which can then corral viruses. But viruses aren't alive. It'll corral viruses.

Frank:

Well, they corral the cells that are making them.

Dave:

Yeah, okay. But doesn't it eventually eliminate those cells because they're sick, it kills them, autophagy, you get rid of them?

Frank:

I don't know that I want to ever think that they're totally gone because the reality is every infection we've ever had in our life, even though it's no longer 'active', you still probably can detect that in your body.

Dave:

Yeah, there's epigenetic markers, and about 6-8% of our DNA comes from viruses that our species has been infected with over time. So, they're kind of with us, okay?

Frank:

Yeah, it's just that that's what we do. We live with them.

Dave:

And sometimes we incorporate them and it's actually useful DNA for us as well.

Frank:

There is probably some stuff like that too, yeah.

Dave:

So, it's such a complex system. What are some of the viral infections that you've seen Ozone Therapy cure that aren't supposed to be fixable? Tell me some hard case stories that you've seen.

Frank:

Okay, so normally in my clinic, people come in if they've got a flu type syndrome. I just put them on this protocol and they're over it. I don't normally test what the virus is.

Dave:

And you say this protocol. What's the protocol?

Frank:

The protocol, let me get into that in a sec.

Dave:

Okay.

Frank:

But I wanted to get this idea out. And that is that, it works on every virus, so I don't really test.

Dave:

Exactly, it doesn't matter.

Frank:

However, I have had patients come in with documented West Nile, documented Influenza A and D and documented Hantaviruses.

Dave:

That's a fun one.

Frank:

I have had those documented come in because they weren't getting well with the other therapies they were doing, and knocked those out. So, I know I can knock those three out.

Dave:

I've seen people, like Robert Rowen's talked about using ozone on Ebola with great success.

Frank:

Sure.

Dave:

So, there's at least a few cases of that. So, if you ... I'll be real blunt, if you yourself had the symptoms of coronavirus right now, what would step one be?

Frank:

Okay, so what my protocol is, number one, people ought to be doing this probably anyway during a flu season. And that would be, make sure your vitamin D levels are decent, make sure your vitamin A levels are decent.

Dave:

Yay.

Frank:

Yeah, make sure your zinc levels are decent.

Dave:

How much zinc do you take or do you think is normal?

Frank:

For me, 15 milligrams orally a day, pretty much. So, that's first line of defense. Second line of defense is if you're actually coming down with something, you want to be on those things. But now you've got to get more aggressive. So, the first thing I haul out is my nebulizer. So, back in the early 80s, Doctor Charlie Farr was the guy that taught me this about what hydrogen peroxide does. And interestingly enough, back then when he told me about this, Dave, the way he checked it out was using the VO2 analysis that I know you guys use.

Dave:

Yeah, we've got that at Upgrade Labs, the one you invented.

Frank:

So, he used that VO2 analysis before and after H2O IVs, and that's how he established all the protocols he established. Well, one day about 20 years ago, a patient comes into my office. And at that point, I'd just been using intravenous hydrogen peroxide as per Doctor Farr's protocol. And very successfully, it works good. The problem is, the patient's got to be in the office. I've got to stick a needle in their arm, blah, blah, blah. But other than that, we're great. But I got this patient in the office, and she's complaining to me that her doctor gave her a medication that she puts in her nebulizer and it revs her up. It was Albuterol. It's like a stimulant.

Dave:

Yeah, it feels great.

Frank:

So it's like taking speed. Her heart rate would get up, she didn't feel good, blah, blah, blah. And then it just suddenly occurred to me, I said, "You know what? It's blatantly obvious, but I never thought about it. When you take something into your lungs, it gets into your bloodstream."

Dave:

That's why smoking works.

Frank:

Hello, you know? But it never really occurred to me. So, I thought, "What the heck? Let's put some hydrogen peroxide in there. It's going to get into her bloodstream. Plus, it's going to on its way down into her bloodstream, it's going to go past those areas that are typically infected." So, it seems to me a nebulizer was good. So, if I wake up one morning and I feel something's coming on, like I've got a sore throat or something's happening, I haul out that nebulizer. And I'm going to do it for about three minutes every hour, every hour I'm awake. And within one or two days, I'll pretty much knock that out.

Dave:

Every hour?

Frank:

Yeah.

Dave:

So you're putting ... The typical ultrasonic nebulizers take about six milliliters, relatively small, only milliliters.

Frank:

Yeah, I only put three in there.

Dave:

Three? So, it's a small amount.

Frank:

Just three ... Yeah, it's like, what? 10 minutes out of the hour.

Dave:

It's like half a teaspoon or something.

Frank:

Yeah.

Dave:

Okay. Maybe two thirds of a teaspoon. So, you put that in there, you turn it on, you're breathing and stuff. You can do other things, but it's a little bit noisy for some of them. The ultrasonics don't make any sound. But they look a little funny.

Frank:

Yeah, you know? When you're fighting the flu, you probably ought to be home.

Dave:

Yeah.

Frank:

Lying in bed sucking on your nebulizer and your zinc tablets and not try to force yourself to go on that trip that you're supposed to go on.

Dave:

That would be nice to everyone else as well.

Frank:

Yeah, it would be nice. Yeah.

Dave:

All right.

Frank:

That's part of the game is getting some rest.

Dave:

So, you would make sure that you had your A, your D, your zinc ahead of time. When you started feeling sick, you'd be nebulizing hydrogen peroxide, this is just 3% medical grade stuff. The stuff you can buy at

the store, but make sure it's not stabilizers. Anything else and anything to worry about in terms of purity?

Frank:

Okay, so for the audience, I use pharmaceutical grade stuff, but it's really hard to get that.

Dave:

It is.

Frank:

Especially for a lot of laypeople, they can't get that. And then you have to put it in normal saline, you can't put it in regular water. So, you've got to get normal saline. So, where do you get normal saline? I mean, you've got to ... It's hard for laypeople to get this stuff. So, what I can do is I can tell everybody, if you go on Amazon and probably some other places, you can get pure sodium chloride, that'd be pure salt. You don't want to use table salt, you want to get the pure sodium chloride. And if you take a liter of distilled water and you put in two and a quarter teaspoons of pure sodium chloride, you've got normal saline. And it'll just dissolve in there.

Dave:

And in a pinch, you could take the most filtered water you get, you boil it so it's sterilized with that same amount of salt in there.

Frank:

Yeah, distilled would be great, but you could do what you're saying, yeah, for sure.

Dave:

Okay, I'm saying in a pinch because like, I wasn't going to go to the store, I'm shedding viruses everywhere. So, you could do that. And then you'd obviously want to cool it off, and then you'd have a 1% saline solution, which your lungs like versus just straight up hydrogen peroxide.

Frank:

It's technically, it's a 0.9% solution and that's perfect for your lungs. And here's how they do it, they go out and they get 34% food grade hydrogen peroxide. Again, you can buy this online.

Dave:

Yeah, but that stuff will burn your skin, your eyes, it is a highly caustic chemical, just to be really clear.

Frank:

Yes.

Dave:

Okay.

Frank:

Don't ... If you put it on your skin, it's going to do a little damage there. So, just be a little bit careful with it. And then, what you do is you take 100 CCs of that normal saline and to that you add 1 CC of the 34%. And that is the concentration I use.

Dave:

And so, what you're basically getting there is around 3% hydrogen peroxide?

Frank:

I'm not sure of the percentage. I think it's a 1.84, but I'm not sure, don't quote me on that.

Dave:

One half.

Frank:

Yeah.

Dave:

So, what I'm doing is, we'll call it the poor man's version of that, which is I'm taking medical grade stuff that I bought at the pharmacy that says it has exactly two ingredients, so there's no stabilizers, it's purified water and hydrogen peroxide and nothing else.

Frank:

Okay.

Dave:

So, if it has other stuff.

Frank:

Perfect.

Dave:

And I put a little sprinkling of salt in there. It's probably not exactly 0.9% sodium, but it's probably close enough. And then, I shake it up and then I put it in my nebulizer. Am I going to die?

Frank:

You know what? People have been doing different versions of this for a long time, and getting some pretty darn good results. I was talking to a colleague of mine the other day who did something very similar to what you're doing, and he had great results. And it was twice as strong as what I use.

Dave:

Yeah, if you did the straight-

Frank:

He had great results. It gave him a little irritation.

Dave:

If you did the straight 3% you'd be all right.

Frank:

People can know if you're doing this, it's not supposed to irritate you. If it does, you probably want to calm it down somehow.

Dave:

Okay, so just back off, add a little bit more straight saline. Okay, so but it's low concentration. And just to be super 10,000% clear, under no circumstances ever would you take 34% or any highly concentrated hydrogen peroxide and put it directly in a nebulizer. That could be-

Frank:

No way.

Dave:

... a complete disaster.

Frank:

You'd kill yourself, it would be horrible.

Dave:

Yeah, it would be really, really bad. So, what we're talking about here is highly dilute, less than 3%, which is why if you buy it prediluted at the store, it just doesn't have the salt in it, but it may have other things in it. Okay, so that would be your first step. So, now you've taken your vitamins. You're now every hour, at least when you're awake, you're nebulizing this 1.84% hydrogen peroxide. Could people put it in a vaporizer if they didn't have a nebulizer?

Frank:

Yeah.

Dave:

Okay.

Frank:

I've heard of that. I've heard of those ... You know those, I think they call them atomizers that you put the essential oil in?

Dave:

Yeah, those are ultrasonic nebulizers anyway. You could-

Frank:

So you could put it in there.

Dave:

Okay. Just don't put that cayenne essential oil in at the same time. Bad idea.

Frank:

And people have done what you told me too and that was just spraying it back in your throat. It doesn't really get in your lungs, but it gets in your throat.

Dave:

And for stopping you from getting an infection while you're walking around a ward or something, that might not be a bad strategy, but eventually you'll get irritated if it's 3% and you're putting that in there. Okay. What else would you do? Okay, you're a functional medicine doctor, you've got a clinic. You have your magic bag of tricks from 50 years of working on cool stuff and you teach other doctors around the world how to use Ozone Therapy. So, right now, you've used the first step of oxidative medicine, which is the hydrogen peroxide. What else would you do to make yourself well fast, or at least avoid the hospital?

Frank:

Okay, so if my flu patient looks halfway decent and they're not immune compromised or chronic lung disease or something like that, that's all I'm going to do, just what I told you.

Dave:

That's it? Wow.

Frank:

That's it.

Dave:

Okay.

Frank:

And they'll knock it out at home, and that'll be that. You know? I don't know if everybody knows this, but coronavirus is a pretty common virus.

Dave:

It's super common. It's like half the cold viruses are in that family, right?

Frank:

Yeah. So, I know I've knocked out coronaviruses. It's just not officially.

Dave:

Yeah, and it's not necessarily this coronavirus.

Frank:

It's not this particular strain, yeah.

Dave:

Have you read any of the research around the virus breaking down hemoglobin and releasing free iron into the body and causing damage to the lungs?

Frank:

I'm sure that's the mechanism. At some point, there's going to be an oxidative burst and a cytokine storm and that's what's going to do people in.

Dave:

And they're saying that that's probably what's causing the ground glass on both lungs all the time. There's no single sited coronavirus. I'm just wondering, I've seen some really convincing papers amongst the high-end functional medicine doctor friends that they're all circulating looking at three different pathways that show that this free iron's being released. So, when you prove something's happening via genetics, via some computational analysis, and via some lab testing, that's probably likely. I'm a little concerned if we do have free iron floating around that's causing extra oxidative stress on the lungs, and then I hit that with an additional oxidative load, hydrogen peroxide, is that something to worry about?

Frank:

It doesn't seem to be.

Dave:

Okay.

Frank:

Because that's what we do, and the patient gets better. It does seem to be something to be wary about. But you've got to remember, does is everything.

Frank:

, which means that at a lower dose, they're going to have one effect, at a higher dose, they're going to have a directly opposite effect. So, you better get the dose right. You use too high a dose, you're going to get exactly what you said.

Dave:

Okay.

Frank:

More is not better with oxidative medicine.

Dave:

All right, so it matters. And you wouldn't actually go to ozone for any of these things?

Frank:

Well, yeah, it depends on the case. But you know, I love ozone and I'd put everybody on ozone if I can, self included, by the way. And I use ozone once a week. I use the blood treatment once a week just for

general purposes. But the point is, if I can spare my patient the expense, that's what I try to do, and normally I can. But I'll tell them, "Listen, if you don't think you're getting over this," or if I personally am concerned about that patient, the next thing I do is I'm going to put them on about a 12 milligram dose of ozone followed by a 10-25 milligram dose of intravenous vitamin C. And with one or two days, I'll flat knock that out. It'll be gone.

Dave:

So, you do ozone first. And then how long after the Ozone Therapy do you administer the vitamin C?

Frank:

Immediately. But the vitamin C always wants to be after.

Dave:

Of course.

Frank:

Never before, because it will counter.

Dave:

So, you briefly introduce this signaling molecule, and then you put in vitamin C to mop up any damage from it.

Frank:

Exactly. Exactly.

Dave:

Now, one of the things that we know vitamin C does with free iron is it binds up the free iron so that it wouldn't be a problem. And I am very convinced that that's why these amazing doctors in China and France discovering intravenous vitamin C for the first time.

Frank:

Isn't it amazing?

Dave:

It's been around for ... What? For longer than you've been practicing medicine, hasn't it?

Frank:

You know, I have an associate that I know who's fairly high up in the CDC, in the Infections Disease Department of the CDC. And he has told me, when you're over there, you do not talk about anything natural or you'll get a bad look. Everything's got to be a vaccine or drug over there. And I was shocked. But yeah, they are flat out, according to this man, they are flat out not interested in anything that's not patentable, period.

Dave:

And it's kind of disturbing because if you're interested in controlling disease, the easiest way to control disease is you make people so well that if they get sick, they don't have to go to the hospital. And then there is no curve to flatten because it's just another cold season. And that is ... I'm pretty sure I could do that for only one trillion dollars instead of two trillion. Like, come on.

Frank:

Yeah. It might not be that expensive. It is really crazy. Yeah, which reminds me, Dave, I was thinking the other day, the world at this point is fairly obsessed with hygiene.

Dave:

And in a way, that's going to cause more harm later, right?

Frank:

Well, that's another conversation. But what about internal hygiene. All we care about is external. Come on, there's internal hygiene, that's way more important.

Dave:

Frank, my poop doesn't smell, if that's what you're saying.

Frank:

I bet. I suspected that.

Dave:

Like, we all have gut bacteria that's messed up. You know, I don't have an IV intravenous setup here. I have one for emergency use if I was dying and there were no hospitals. I have glass syringes and I have medical ozone here. But I'm not messing around with that because that is truly zombie apocalypse time. I do though have the ability to do rectal ozone. So, I woke up earlier than I wanted to this morning, so I have a little extra time before the kids wake up. So, I did about a half a liter of rectal ozone at 40 gamma. And then I sat in my infrared sauna for a while, and I feel really good. And I do that, during this time, probably two or three times a week, and it absorbs. And I learned how to do that from a guy you might know, Doctor Gallagher, who was the dentist in Sunnyvale who's since passed away. He was in his late 80s 20 years ago when he taught me to do it. And he'd been doing ozone dentistry for many, many years.

Dave:

And I have found that that's what fixed my toxic mold exposure. It literally rejuvenated my mitochondria, gave me my brain back, and it gave me a functioning immune system after just years of really serious dysfunction from living with Stachybotrys and other toxic molds. But now I'm not exposed, I live on a farm. I have very, very low risk, not to mention all my other stuff. But I just like to feel good and I like to know that I'm well. And I also like to know that, should there be a really serious problem, that people that I know are having problems, I've got an extra ozone machine and an extra bottle of oxygen.

Dave:

So, literally, I would put it at the front of the driveway and say, "I'm not licensed. Here's the machine. You guys can use it if you want," because it's that much of a life saver. I mean, for any plague, pandemic that would happen, I consider it to be that plus a generator. So, like, have your electricity. That is my number one most important piece of equipment after a water pump because I know any bacterial and any viral infection, I can probably kill it. Am I too faithful in the power of ozone?

Frank:

You know, antibiotics are needed sometimes, steroids are needed sometimes, fluids, I've got all that. One of the things I love most about ozone is that it complements everything, so you can just pile it on. If you're on an antibiotic, fine. There is really no contrary indication to any mainstream sort of therapy to just tagging this on. And when you add it on, it's a lot better. Whatever you're doing just automatically got better.

Dave:

That's certainly been my experience in all the literature I've read. So, I'm definitely not a prepper, but I do have all the food I need because it grows on my farm. It's a different perspective. But if you practice permaculture, you have seeds in your garage because you had to plant them anyway, and stuff like that. But for all the people listening who are preppers, seriously, if you don't have an ozone generator, it would replace two thirds of the drugs that will expire in your stash, and you can use it to sterilize water if you need to. So, it seems like ... treat burns, everything crazy. So, it seems like it's one of those kind of medical miracles for lack of ... Wait, The Ozone Miracle, that's your book.

Frank:

It would be nice if everybody had one. And the book, by the way, if you're a person out there and you're interested in knowing what can I do at home? Kind of like what you're talking about, Dave, that's what that book is about.

Dave:

It is a very worthy read. That was one of the many reasons I wanted to have you on this show to talk about it. Are you ... If you tomorrow woke up and you had a sniffle, I mean, you're ... I don't know how old you are. You're older than you look, but you've been practicing for 50 years, so you've got to be at least 70. So, you would classically be considered in the high risk because as you age, your mitochondrial function goes down and all that stuff. Would you be particularly worried about yourself? Or do you think your cells and your immune system are ... No, you're shaking your head. You wouldn't be worried? You're like, "I've got this."

Frank:

You know, I wear that shirt I got at your conference last year. Does it say unstoppable or something on it?

Dave:

Yeah, we got an unstoppable shirt and you've got that on from-

Frank:

Yeah, I like that unstoppable shirt because I kind of feel unstoppable. I know I'm not. I know obviously there's vulnerabilities there. But I do not feel like my age. And it is a little bit weird when I'm listening to the radio where somebody's saying, "If you're over 70, you're in trouble now." I don't feel that's true.

Dave:

You know, that's if you're average. And you look at Italy, man, the people who died, the average age was 81.5 and they had an average of three pre-existing conditions.

Frank:

Hello?

Dave:

Yeah, and one of them was diabetes. Tell me about mitochondria and diabetes.

Frank:

Did we talk about this before?

Dave:

We probably did, but that was 150 episodes ago, so people ... There's a lot of new listeners.

Frank:

Yes. So, diabetes is like your classic disease. I wrote a book about this because of this reason. It's your classic disease of mitochondrial dysfunction, such that it could be totally ... I'm talking about type two diabetes, could be totally eliminated or close to totally eliminated simply by maintaining mitochondrial function. You don't have to do anything else if you would do that.

Dave:

Yeah. In fact, I've started to view it after writing my mitochondria book as ... In fact, the one that referenced a lot of your work. Type two diabetes is at its core just a disease of mitochondrial deficiency.

Frank:

Yeah.

Dave:

And there can be different reasons for mitochondrial deficiency, but they're not working. Would Ozone Therapy fix diabetes because it has such a powerful effect on mitochondria?

Frank:

Yes.

Dave:

Shocking.

Frank:

You've got to get ... You can't wait until you're very far progressed and things have really become problematic to get the best results, but if you do it fairly early on, absolutely.

Dave:

Okay. If you're practicing intermittent fasting, when would you administer Ozone Therapy? During the fast, after the fast, before you start fasting?

Frank:

I'd probably ... I normally want people to eat before I give them the treatment because it will create a hypoglycemia.

Dave:

When you're doing it via IV?

Frank:

Yeah. Maybe even in other ways too, like even a sauna, it's possible, can cause low blood sugar. And let's face it, if you're doing that, odds are halfway decent you're sick anyway, in which case you're going to be a little bit weak in that way. So, I don't know that I'd want you doing it on a fast unless you're a pretty strong guy anyway.

Dave:

Okay. And in your case, even if you're not sick, you're doing one treatment a week, right?

Frank:

Yeah.

Dave:

And you eat before your treatments?

Frank:

Yes.

Dave:

Okay, got it. Do you worry about the ozone oxidizing lipids in the blood or creating oxidized LDL cholesterol or anything like that?

Frank:

Yeah, actually, I want it to do that.

Dave:

To create oxidized LDL?

Frank:

Yes.

Dave:

Do explain, because so many people are saying, "Cholesterol is not really bad. We think it might be bad. No, it's not, but oxidized LDL is horrifying." Why would you want that?

Frank:

Oxidized LDL is actually the form of LDL that causes the problem, so they're absolutely right. It doesn't matter if you're LDL's high and your oxidized LDL is low, you're in pretty good shape. I wouldn't worry about that.

Dave:

But I thought you said you wanted the ozone to oxidize the LDL?

Frank:

Well, what's happening is ozone is ... When it interacts with any kind of living tissue, it pretty much in a second disappears, it's no longer there. It accepts an electron, almost always from a lipid. So, a fat. LDL is a fat. So, it will accept an electron from the LDL. And in fact, you will get an increase in the oxidized LDL. I haven't measured this, but I'm pretty sure you would.

Dave:

It almost has to work that way, right?

Frank:

Yeah, you're going to get ... Whatever lipid's in there, probably you're going to oxidize it, there's a good chance. And then, these oxidized lipids, including the oxidized LDL, are what mediates the signaling that this ozone molecule can do.

Dave:

Okay.

Frank:

And yeah, you're going to get a little bit of oxidated LDL. But let's face it, what's going to happen is when you get the oxidized LDL, you are going to stimulate the systems that suppress oxidized LDL. So, over the long run, your LDL is actually going down. We have looked at this specifically with other lipids, not with LDL, but with other lipids. And we've seen, you start the ozone therapy, the oxidized lipids go up. And maybe after seven days, now they start coming down, and they'll actually around the 12th day go below baseline. So, you'll actually fix the problem. It's ironic. But a little bit of a bad thing is a good thing, if you'll stay with it. But the dose is critical.

Dave:

So, the dose is critical, all right. I think it's one of the ways of restoring metabolism. And my mother has ... She came down with very suddenly autoimmune hemolytic anemia.

Frank:

Okay.

Dave:

And I said, "Hey, mom, you're doing some traditional stuff that's not ... not traditional, some Western medicine stuff that's not working here. I really, really, really think you should try Ozone Therapy." And my dad just sent a chart of her labs, since she's getting weekly labs since she started doing ozone. Magically, all the labs went from red to yellow to green over the course of about six or eight weeks. And honestly, it would surprise me if Ozone Therapy was a major contributor to saving her, because that can be a really pernicious, uncomfortable thing. And the main difference there was Prednisone didn't work. But ozone seemed like it did. So, it's one of those things where you don't know, but you're unlikely to cause harm with ozone.

Frank:

Yeah.

Dave:

Are there conditions where it's bad?

Frank:

That's one of the nice things about it, I don't have to worry about I'm going to hurt somebody, as long as I get that dose right.

Dave:

Okay, so if you get the dose right, there's no medical condition you're aware of where ozone would be a bad deal?

Frank:

Well, actually, I need to say there are, but they're unusual. But you can get a deficiency of an enzyme called G6PD.

Dave:

Okay, that's not that unusual, like one in 100,000 or something.

Frank:

Yeah, okay.

Dave:

Okay, I'm guessing, but yeah.

Frank:

But if you have that, that could potentially be a problem. If you're in a state of what we call thyrotoxicosis, your thyroid is hyper elevated in a disease type state and not being controlled, that's a contraindication.

Dave:

Okay, so very unusual.

Frank:

If you're having an acute cardiovascular event, so you're acutely stroking or you're acutely having a heart attack, that would be contraindicated. An acute seizure would be contraindicated.

Dave:

All of those would be able to do the vitamin C instead of the ozone. You have plenty of oxidative stress basically, you're just trying to stop sepsis.

Frank:

Yeah.

Dave:

Okay.

Frank:

Yeah.

Dave:

Have you gone down to your local hospital? You're in Carson City, right?

Frank:

Right, yeah.

Dave:

Okay, I used to live on the hill up there by Lake Tahoe.

Frank:

No kidding.

Dave:

Yeah.

Frank:

Nice.

Dave:

It was years and years ago. And beautiful part of the world up by Tahoe. And have you gone to the local hospital? In fact, that's the one I would have gone to if I fell skiing probably. Have you gone in there and said, "Hey guys, I know a thing or two. Let's hook some ozone up in here." Or did they just roll their eyes and go the other way?

Frank:

You know, I haven't done that. I have made some efforts with the president's ... his COVID team. I have made some efforts to kind of come around. And I am working trying to get some information into that team because I think that's the only way you're going to get anything done here. The conventional guys in a hospital, their hands are tied. They can only do what the administrators are going to let them do. They can't ... You know, it's sad, but we're at a time in our lives where doctors don't really get to decide what to do with their patients. You've got some dang bureaucrat that's deciding that.

Dave:

And people may roll their eyes and say, "You don't work in a hospital, how do you know?" I just had Doctor Anne Shippy on my Instagram. And she's a former IBM chemical engineer turned medical doctor. And you know, she had a patient who had it, was tested positive, it was recovering on Chloroquine. Took him to the local hospital, and they put him on, get this, fluids, IV fluids. And he started getting worse. And she said, "What are you doing? I already have him on this med. Just keep giving him what's already working." And they said, "Our hospital committee has decided that our standard of care for COVID is fluids until you need a ventilator." And why would you go to that hospital? It's crazy.

Frank:

Yeah, yeah. You don't want to actually go to the hospital, it's probably one of the more unsafe places you could be unless you actually really needed something like a respirator, you don't want to be in a hospital.

Dave:

Yeah, it's not a good time there. And plus, the doctors are working their butts off, so I find that when you talk to someone who's practiced for decades, like you, every time I have these conversations, I hear the same thing. Like, we used to get to practice medicine where we'd say, "Okay, I'm going to use my judgment and my clinical experience and my read on this patient in the room with me. And I'm going to choose from the tool set available and I'm going to do what I think is right." And then in this idea that we're going to reduce risk, we actually reduce the ability to do anything other than average.

Frank:

Good point, yeah.

Dave:

I'm also hearing from my wife, an emergency medical room physician from Sweden. And she said, "Dave, something's wrong." She said in all medical settings that she's ever been in, at least in Sweden where she spent most of the time practicing, some in Norway, there's an emergency room. And if there isn't enough resource, then some people don't get the resource. And a part of being a doctor is saying, "You know what? Actually, you're not going to make it." And that, this is a part of medicine saying, "No matter how much we throw at you, your chances at making it are essentially zero. So, we're going to preserve those resources for someone who will actually benefit from them." And she said that when she talked with doctors when she started practicing in the US just on rotation or on visiting doctor status and all, that that was just a foreign concept to them. They'd say, "No, you have to do everything possible forever."

Dave:

And that one of her friends here, an older doctor who was in his 70s, said, "Hey, one of the big difficulties here is now people believe that if they bring someone alive to the emergency room, that they're going to walk away." Like, the concept of someone dying in a hospital is gone. Over your 50 years of practice, how has the attitude towards, this is a non-resuscitable condition even though we haven't done everything yet, how has that shifted in the US? Because you have enough history to really see the change over time that I would never be able to see.

Frank:

You know, that's a good question. I don't know that I've really thought that one out. I would have to say that when you were saying that people's impression is you don't die in a hospital, I would have to say that impression has increased now over what it would have been 50 years ago.

Dave:

Yeah.

Frank:

You know, 50 years ago, you go in a hospital, you die. Nobody's going to probably think badly of that necessarily.

Dave:

Okay.

Frank:

This day and age, they're going to probably be more likely to think something went wrong, they did something wrong. They didn't do something right. And then there's the liability issue, which is a whole nother deal.

Dave:

Yeah, that's driving a lot of this.

Frank:

Yeah, if you save the one person or don't save the one person, as the case may be, but you throw everything you have at them, and other people can't get that treatment now because you're doing that, from a liability place, that's where you want to be.

Dave:

It's a big issue. How do you get around that? I mean, you have a clinic. You're doing Ozone Therapy. And how do you manage liability with that? Because you're doing some of the most effective medicine that there is, from my perspective. But it's not always looked kindly upon by big pharma. So, how do you walk that walk, if you don't mind me asking that on the air?

Frank:

You know, a lot of the times doctors are kind of floored when I tell them I haven't had malpractice insurance for 35 years.

Dave:

Wow.

Frank:

A lot of doctors are floored by that. And they say, "Well, why don't you do that?" And my answer is, "Because I don't kill anybody." I don't do anything that requires that insurance.

Dave:

Wow, because you're doing Ozone Therapy, which doesn't do that.

Frank:

And I'm spending time with my patient, I'm developing a rapport with them where I give them the options. We're talking about what's going on. We're having a dialogue. I'm not spending five minutes and telling them what to do. They understand their part of the decision making process. And that's ... I don't need it because nobody ever actually gets hurt from what I do.

Dave:

So, that's how you manage the risk, don't hurt people. Who would have thought?

Frank:

You know, it's one of the really ... Looking back on it over the years, that's what really probably propelled me to get into this. A lot of my colleagues that are into alternative medicine got into it because they got sick or a family member got sick and alternative medicine fixed them. I didn't come in that way. I just came in because after I graduated from medical school and went out into medical practice, very quickly, within a year, I learned that all I'm doing is not really helping people and making half of them sick from the medicines I'm giving them. And that's what propelled me. I don't like making people sick. I like making people well. I can't stand the thought of creating more pain in a patient or creating more disease in a patient. I just can't do that. It's not part of who I am. And I'm not going to do that. And that's what's propelled me.

Frank:

So, anything that's safe, I'm game for it. As long as it's safe, I'm good. I don't have to have some proven study. I don't have to have a known mechanism of action. I like that, but I don't need that stuff. The No. 1 thing I want to know is what I'm going to do is safe. After that, everything else comes.

Dave:

So, if it's safe and you're seeing that it works, the worst that'll happen is that it doesn't work.

Frank:

Exactly. Yeah.

Dave:

And the therapies you're using are a little cheaper than a $70,000 drug that's 4% better than placebo, which is not uncommon at all.

Frank:

Yes, that's way too common.

Dave:

Well, I appreciate you coming on to talk about Ozone Therapy and just how broad spectrum it is, because I think if there ever was a time that Ozone Therapy can and will rise in awareness, it's now because it's cost effective, it's highly effective against anything. You don't have to be tested for COVID to know that Ozone Therapy is likely to help you recover more quickly from any condition.

Frank:

Exactly.

Dave:

And it's about that increasing resilience so maybe less people need to go to the hospital. And that's not, at that point, flattening the curve, it's actually lowering the curve, which is a different animal.

Frank:

Yeah.

Dave:

So, our goal should be to make it so everyone gets the coronavirus, but no one knows they got it.

Frank:

Okay.

Dave:

That's a laudable goal.

Frank:

Sooner or later, you're going to get exposed to it. This strain, probably, it's not likely you're not going to get exposed to it sooner or later.

Dave:

It will happen.

Frank:

Let's be ready for it when it happens.

Dave:

Yeah, just be hard to kill, you'll be good. Beautiful. Well, your book, The Ozone Miracle, is absolutely worth reading for anyone listening to the show. And your website is theozonemiracle.com, that's one of them. But your main website is antiagingmedicine.com. And so, if you guys want to know more about Frank and his work, we're talking 50 years, multiple papers, multiple books, and just an incredible body of knowledge around anti-aging and how the power plants in our cells are integrally tied and how you

can talk to them using the power of ozone or hydrogen peroxide. And to date, I don't know anyone who's talked about nebulizing hydrogen peroxide. I think you invented it, as far as I can tell. And in terms of using that for lung specific conditions, very interesting idea. I think it's worth further exploration.

Dave:

So, if you are a doctor, you are out there working in a hospital or something or at home, I'd love it if you just hit me up on Instagram, direct message me. Tell me if you've seen this work. And if there's people who have seen it work, I'll do my best to share it with others, not that I'm recommending this, not that anyone can say that this is good or bad for coronavirus. But we can say, based on what Doctor Shallenberger says, that nebulizing hydrogen peroxide has a long history of use that's been safe. So, is it likely to cause harm now? Probably not. And if you find, hey, it turned me round. It kept me safe, whatever. I'd love to get anecdotal evidence, knowing full well it's not a clinical trial. So, thank you, Frank.

Frank:

Okay, Dave. Thank you for all the good work you do. Thanks for having me.

Dave:

If you liked today's episode, you know what to do. Make sure you subscribe to iTunes. Maybe head on over to daveasprey.com, my blog. And there'll be full transcript notes, links to everything you want to get. And you're going to find even more stuff about what you can do to be way more resilient because now is the time.