Ozone Therapy: Your Favorite New Biohack– Micah Lowe with Dave Asprey – #858

Announcer:

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Dave:

You are listening to Bulletproof Radio with Dave Asprey. Today's guest is someone I've been wanting to have on for a while because he has spent huge amounts of time studying ozone therapy. And ozone is one of those things I've written about extensively in lots of my books. In fact, I've done multiple episodes of the podcast on it, and it's something that's just entering the consciousness that we have. Even things like coronavirus, things like drug-resistant whatevers, all of them respond to ozone therapy because ozone therapy actually hacks the cells in your body. So I wanted to bring you guys an expert who would really be able to go deep with you on ozone. In fact, today's guest has been nicknamed an ozonaut because he's done so much pioneering work in ozone, and his name is Micah Lowe. Micah, welcome to the show.

Micah Lowe:

Mm-hmm (affirmative). Well, thanks. I'm super happy to be here.

Dave:

I wanted to do this in-person because we always get a better interview. And we met at Genius Network with Joe Polish, who's also been on the show talking about addiction and just his crazy life. But you have this weird second generation thing going on. Because in SuperHuman I talk about blood irradiation with ultraviolet light and this amazing amounts of healing that can happen. I actually had my blood UV irradiated and ozonated two and three days ago, probably using equipment that your father helped to design. So you grew up even just as a teenager doing this cutting edge oxidative therapies. How did your family get into ozone as something that mattered? Going back 25 years ago, it was pretty out there.

Micah:

Yeah. And it is kind of an interesting thing. You hear ultraviolet blood irradiation, and you're like, "Irradiation, that doesn't sound good." But it's using natural light, exposing it to your blood, and putting it back into the body to elicit a beneficial result. But essentially what had happened was my father was a serial entrepreneur, entrepreneurial kind of guy. He was very tenacious, would start business after business. And he was in between businesses, had made a decent amount off some other stuff, and was looking for the next thing to do.

Micah:

And so this guy that was out in Africa doing some missionary work, he got associated with from his church. He came back and said, "Hey, we're using something called a UBI to treat these crazy infections out there." People just don't have the access to hospitals and things that we do here, so infections and those types of things are much more common with where they were at. And this was in Togo, West Africa. So he brought the equipment back, started talking with my dad, and they decided to start a clinic together in Lansing, Michigan. And that failed miserably, didn't go very well. And Michigan is just kind of closed-ears to this kind of stuff. You come out West and it's like, "Well, wow."

Dave:

Even Santa Cruz was pretty closed-ears back then. I mean, this was very out there.

Micah:

Yeah. It just not something that was super common. People don't know about it. It takes a lot of education to kind of get them into the paradigm and to understand what you're doing. So anyway, they started the clinic. They started working with some of the equipment. Long story short, he ended up developing better equipment, more energy going into the blood, a better way of getting exposure from the blood to the light and those types of things, so that's how we got into it. And I eventually was working with him. I was doing nursing. I was working on the ambulance and kind of started to see this discrepancy between what we were doing with the UBI and what my training was going to be, and I was going down the route ... I wanted to become the doctor, those types of things.

Micah:

So, a question that I had asked, which I ask frequently these types of things, but somebody with type 2 diabetes, why do we just put them on a lifetime of metformin and always increase it? Why don't we give them like six months, three months or something like that, and give them a course of action to reverse the disease? And usually the response is, "Well, we haven't created a drug to cure type 2 diabetes yet." So I was like, "Well, there's more to the story here." We can work with it. We can do diet. We can do lifestyle changes, so why ... We talk about it all the time in this conventional circle, but why aren't we really using it? And so that was kind of the prelude into my work with ozone from the UBI because the UBI doctors commonly using ozone was just kind of a natural transition.

Dave:

So the original oxidative therapy was relatively difficult to take the blood out, expose it to high doses of ultraviolet like you would get from sunshine but even stronger, and then put it back in. And ozone therapy though is much more accessible. One of the reasons that I really was attracted to having you on the show is I'm tired of these therapies that are incredibly expensive. When I had toxic mold, one of the things I did, and I've been really public about this, no one knew what was going on. They said, "Oh, you have Lyme disease, chemical sensitivity, fibromyalgia, chronic fatigue syndrome," and I had all the symptoms of these things, and most of them boiled down to you've been poisoned by something in your environment, and quite often mold but not always. It can be Lyme or whatever. But for me, I said, "I'm going to learn how to do ozone therapy."

Dave:

And I wasn't doing as well as I am today financially. This was quite a while ago. But I could afford about a five, $600 ozone machine from China that was not metered. And I was lucky that a dentist who I've written about in Super Human, who was 88 years old at the time, said, "Hey, Dave. I'm going to teach you how to do this," and he was doing it in his dental practice. So he got me going on ozone therapy. I could do it because I knew the right people, and it was relatively affordable. But if you didn't know the right people, it was two grand for an ozone machine, and that's a huge amount of money. What have you done to make ozone more accessible with what you're doing versus spending a few grand like I had to do to buy my own gear?

Micah:

Sure. So yeah, ozone has been around for a really long time, but there was kind of just a couple companies that dominated the market that kind of set what the price criteria was. And the realistic thing

is that it's not complicated technology. It shouldn't be $2,000 to create. So I was like, "Well, it doesn't seem that difficult." What if we create a machine that's stable, reliable, gives the purity that's required for ozone therapy? We eliminate the things that are unnecessary, and we just sell it for a lot cheaper. And so eventually with trial and error, we got a machine that was super stable, super reliable, much less expensive.

Dave:

What does it run to buy an ozone machine these days?

Micah:

So when I first came into the market, you were looking at the base machine being like $2,000 plus accessories and equipment, so you could be, if you're just kind of getting a basic home setup, upwards of $3,000.

Dave:

Okay.

Micah:

So now you're looking at about 950 bucks.

Dave:

So you've cut the cost basically by two thirds already.

Micah:

Yeah, essentially. So the threshold has been lowered. And the other advantage of that too is that you're not just looking at a one-time shot, right? Like you're not spending $950 to get a ozone therapy. You're spending $950 to get set up with ozone therapy for the rest of your life.

Dave:

It's actually really cheap at that level.

Micah:

Mm-hmm (affirmative).

Dave:

And when we talk about ozone therapy, there's basically three or four types of ozone therapy that I think are common at home, the stuff that I do at home. And I'm going to list those, and I want you to tell me which ones are a good idea or a bad idea based on your experience with this stuff.

Micah:

Yeah. Okay.

Dave:

So the one that I think turned my brain back on and probably saved my health was rectal ozone therapy, which is when you make sure it's not too much ozone, not too strong, but you introduce it into the rectum. Yes, it's a very small little hose, but that's how it works. So that would be one, or you can do it vaginally for women. Obviously I'm not equipped for that.

Dave:

Then you can do cupping. And I've talked on the show about how my daughter had a really severe ear infection, not in the inside of the ear but on the outside of the year, like a cut that got infected. And it took literally 20 minutes of ozone gas to prevent her from having to take antibiotics. Like her ear went back to its normal size, and I've done it topically many of times. Then you can do it in your ears with a stethoscope, which gets into the brain and helps with brain fog, things like that. And then there's an ozone sauna where you can have ozone, or bagging, where your whole body can be exposed to ozone. Does your gear work for all of that?

Micah:

Yeah, it does. And you're kind of in the space now too of anecdote versus the scientific results. And one of the things I love about ozone therapy is the science backing that it has.

Dave:

There's tons.

Micah:

Yeah. And a lot of people don't realize how much there is. It's based out of Europe, the primary facilities being in Italy. But they've really done a lot of high quality research on this stuff, and it's generally people that are passionate about it and are just want to really figure it out because there's not the backing behind it that you would have for a drug or something that's going to generate a ton of income.

Micah:

But to answer your question about what is good to do at home. So, there's the rectal, like you said, the ear, the cupping, and the ozone sauna. And there's other things you can do too.

Dave:

Like what?

Micah:

You could do drinking the ozone water.

Dave:

Of course. Yeah.

Micah:

You could swish with the ozone water. There's the bagging, the cupping, which you already said. There's the vaginal, the rectal, and the sauna. So I guess the only other one was really the water that you would add in. And in the doctor's office too, they're doing the intravenous and that kind of stuff.

Micah:

One of the things I don't like that I'm kind of becoming more known for is rectal insufflation, which is not a great thing to tie your face to necessarily, but it helps people, so I'm all onboard for that.

Dave:

I'm going to be really straightforward. I'm recovering from pneumonia right now. About a week ago, they wanted to hospitalize me for it. And I'm pretty much fully recovered. There's still a little bit of coughing. But in terms of energy and all that stuff, I am dialed in. And yeah, I used antibiotics as well. But this morning, I did rectal insufflation with ozone, and I've been doing it two or three times a day as part of my recovery because it turns your mitochondria on. And I know this because I have 20 years of experience doing it. But past episodes, Frank Shallenberger, who's a legend in the field, has been on the show in episode 524. And then Robert Rowen, who cured Ebola with this stuff in Africa, was in episode 352. So people are really working on amazing things that aren't even supposed to be possible, tuberculosis and things like that. Why do you not like being tied with rectal insufflation?

Micah:

Well, in the sense that it's just not the most glamorous subject. I do in the sense that it is a good, effective therapy that really is helping people. And that's really where I get my drive from is the fact that I'm kind of stepping into this circle. It's helping people, people who have gone through the wringer, they've gone through all the options. And then they find ozone, and they're like, "I'm getting my life back." Or I've had a lot of athletes, and I have some stories from that I can share too. But people who are triathletes that have been doing it their whole life and start using ozone, then they're like, "Oh, my times are getting better. I'm actually gaining weight too," and things like that that it's been really effective for. But at home, yeah, the most effective way you can do it is rectal insufflation for systemic benefit.

Dave:

When I first got into ozone, this was a long time ago, I had this interesting little device, and it had an aquarium air pump that would pump air into some crappy little thing. It cost a few hundred bucks. And it would make ozone, but it was making it from not a pure oxygen source. What are the pros and cons of doing that?

Micah:

Yeah. So there's a whole world of ozone that you can dive into. There's ozone for municipalities. There's ozone for wine making. There's ozone for pools. There's ozone for hot tubs. There's ozone for aquariums, and then there's medical ozone. They're all different.

Dave:

Right.

Micah:

The common foundation is that ozone is a really strong oxidant. So in the cases of like hot tubs, municipalities, aquariums, it's really good for disinfecting and eliminating bacteria that you don't want. Now, ozone into the blood or the rectum is different. It's not a disinfectant in that way. But if you use it

topically like on a wound, it's still going to be a disinfectant. So it kind of has this multifaceted things going on with it that make it really interesting.

Dave:

One of the things that made me switch from ... This was marketed as a medical device. This has to be like mid '90s. The problem is that when you take normal air, which has nitrogen in it, and you expose it to the spark gap that makes ozone, you end up getting reactive oxygen species, which you want. You also end up getting reactive nitrogen compounds, which you definitely don't want. So I think for medical use, you probably want to use bottled or at least concentrated oxygen, right?

Micah:

Yeah. Sorry I didn't comment on that. But yeah, essentially the big difference is that the machines used for disinfecting are not medical grade ozone generators. They're using ambient air. They're using equipment that generally is not super ozone resistant, so there's going to be some breakdown of materials. And if you try to use that for medical purposes, you're going to be adding toxicity to your body that you don't want. So that's why you don't use those machines that are made for aquariums, machines that are made for pools, those types of things. There are the medical grade ozone generators that put out pure concentrations of ozone when they're hooked up to an oxygen tank, so they're not just pulling in the ambient air.

Dave:

All right. Let's talk about oxygen tanks. So here's my pitch for you guys, and I'm not really selling anything, but I'm just telling you. In terms of having a very high return on investment, if you have the ability to make medical ozone at home, it will save you huge amounts of money and time and increase your performance, and you can do it literally for decades with a little bit of equipment for this. So if you were to go to a doctor's office and do insufflation, where some of them will do that. So if your doctor does ozone therapy, I appreciate what you're doing, and keep doing it. However, most of you want your patients to not have to drive in and pay you some fee to have a little bag of ozone that they squeeze up their butt. Because that's what you do, right?

Micah:

Exactly.

Dave:

Literally they send you into the little bathroom. They give you a bag, and you squeeze the thing, and you come out, and then you drive home, and you probably have to hit the bathroom at some point. Like it's not that hard to do. So I am saying that if we have access to this, you won't have to take antibiotics as often. You can do even infections that are starting to spread. You can cup those, and they go away most of the time. And if your brain's just not working, you're feeling really crappy, you can do it rectally, and you get your brain back. And if there's some weird chronic infection thing going on, you get better faster. So you were saying it's about 950 bucks. What about the oxygen source though? This is always the big concern. Like, "How do I get pure oxygen to make ozone that I could use on my family?" with appropriate training by the way.

Micah:

Yeah. So there's two different kinds of oxygen tanks. There's 540 commercial, and there's 870 medical. Most people recommend getting the medical tank. It's a prescription, has the regulations of being a medical tank. But the commercial, the 540 commercial tank, you can get at Praxair or Airgas, and you don't need a prescription, so most people actually choose to do that because they're rated for the same grade of oxygen, so there's not really a difference in purity by what they're rated for, but the prescription is the recommended method to go about. And people generally just get a script from their doctor, go to a medical oxygen supply, and they're good to go.

Dave:

All right. I'm going to completely disagree with you there.

Micah:

Okay.

Dave:

There is an absolute monopoly of disgustingness on oxygen access. The stuff is locked down harder than you could possibly imagine. You want to get a script? Okay. What are you going to tell your insurance company about why you need a script for oxygen? You're like, "Oh, maybe I wanted to do exercise with oxygen therapy. Maybe I wanted to do ozone." But a lot of doctors won't even write a script for a tank because they don't want to put their license at risk. There is no difference between medical oxygen and welding oxygen in terms of what's in it as far as I can ascertain. In fact, I've even gone to places where they're filling medical and welding from the same tank, right?

Micah:

Yeah. Mm-hmm (affirmative).

Dave:

So we know it's the same. And then people used to say, "Oh. Well, there might be some oil in the welding oxygen." I welded Toyota truck frames for a living for a portion of my life, not a very long portion thankfully. I can tell you if there is grease in your oxygen, you will not like what happens in your welder. That is not happening. So what's going on here is you can spend 20 bucks or 40 bucks on an oxygen refill for welding oxygen, or you could spend a whole lot more and get exactly the same thing, and have to go to a pharmacy and deal with all sorts of rigamarole. So everyone that I know of now who's doing ozone therapy just buys the big, affordable tanks of oxygen, puts a regulator on, and then makes pure ozone, whether they're using it even intravenously or they're using it rectally, or they're using it for an ozone sauna and things like that. Or they may use a concentrator, manufacture their own oxygen, which works for saunas but probably not for internal use.

Micah:

Yeah. It's probably not ideal to use a concentrator just because you're going to get 95% purity, but you're not going to get the 99.9% purity, which is going to be a bit better if you're doing ... If you're doing anything with veins or blood, yeah, do not use a concentrator.

Dave:

No.

Micah:

Absolutely.

Dave:

And at home, it's not appropriate to do ozone in your blood. This is just one of those things where it's called a home remedy where you do this ... I've seen it over and over with my kids and with me where I'm saying, "You know what? I really didn't want to ... " I didn't want to have to take antibiotics, but for skin infections and for problems with the gut, it's the strongest thing I've ever seen."

Dave:

All right. So people could go, and they could spend about 1,000 bucks. And yours is the most affordable equipment I've been able to find, other than unlabeled stuff from China where you don't know how much ozone you're getting. How important is it to know how much ozone is coming out of your ozone machine?

Micah:

So one of the issues, and I've tested a number of machines that people have been like, "Hey, I'm not sure if my ozone is making an accurate amount to what it says it is." So generally with ozone generators, there's a chart on top of the machine that tells you what it's putting out. It's not actually reading what it is putting out. You just have to take the chart's word for it for whatever actually is ... what it says it is. So anyway, we have to analyze them. We have to check them and calibrate them to make sure that they're accurate. I've had a number of times where people have sent me back a machine to hae them calibrated and analyzed, and they're putting out 100% higher than they should be on their ozone concentration.

Micah:

Now, if you're trying to do ozone therapy, it doesn't have to be super finite and exact. But if you're 100% off of what your mark is supposed to be, that's not a good thing. You're going to be potentially causing some excessive oxidative stress, some excessive irritation to the places you're applying it. So having a machine where you know what the concentration is is super important, and that's generally only going to come from companies that are based in the United States or out of Canada that calibrate and analyze their machines, that know exactly what's coming out of it. And they're built to last too, so they're not necessarily just going to fall off the grade right away. They're built to last in the sense that they're going to retain those concentrations, and you're not going to be causing damage.

Dave:

That's really good advice. So for me, I was able to get my weird Chinese one calibrated because I was working with a medical professional that had calibration gear. So for the rest of us here, if you're saying I want to try this, here's the deal. Go to a doctor. You can search for an ozone doctor and say, "I'd like to try ozone therapy and see what it does." And you can actually say, "I want to try insufflation," which means the doctor's going to basically give you a bag of ozone, and you're going to put it where the ozone shines. And you can see what it'd do for you. And if you say, "This is really interesting. I'd like to do more," realize you can have access to the stuff for the rest of your life for essentially free, or very nearly free. The cost of welding oxygen, you use a liter at a time, and there's hundreds of liters in a little tank, so you'll be okay.

Micah:

Yeah, it lasts forever. So an oxygen tank will typically be six to 12 months for people doing it at home. It's going to be an additional 20 bucks when you need to get it refilled. And on finding a doctor, so if you're looking for a doctor to do ozone therapy, you can go to map.DrsOzone.com to find a doctor. And that's just a map of the doctors in the United States.

Dave:

Map.DrsOzone.com?

Micah:

Yes. Sorry. So it's Map.drs ... It's not spelled out, D-R-S, ozone.com. And there's a list of doctors on there, and you can find one locally usually.

Dave:

That's a great resource for you guys. So my goal in this podcast, I want you to go out and try ozone therapy. Even if you're saying, "I'm totally kicking ass," there's another level of kicking ass that happens when your brain works better, when your mitochondria make more of their antioxidants because they actually got stressed. Let's talk about enhancing athletic performance.

Dave:

Let's talk about enhancing athletic performance. Let's talk about enhancing cognitive performance. What are the studies you've seen that say that ozone actually takes healthy people and makes them more performant?

Micah:

Yeah. So there's a lot of research on ozone's ability mediate oxidative stress and increase oxygen efficiency. So oxidative stress is defined as an imbalance between free radicals and antioxidants. Free radicals being these little molecules that are byproducts of your mitochondria that will steal electrons from other cells and damage the DNA, damage the cell, and you don't necessarily want an excess of that. They can be good in certain scenarios for cell signaling and things like that. So they're not all bad, but when you have the imbalance is when it's bad. The antioxidants on the other hand are the ones that quench the free radicals, so they have an electron to be able to give away.

Micah:

So one of the things that ozone therapy claims to be able to do, and the research behind it shows, is that it can actually mediate oxidative stress. And that's really interesting because ozone is an oxidant. Why would you be using an oxidant to mediate oxidative stress? It doesn't make much sense, does it? Well, what you go out and exercise, what are you causing?

Dave:

Oxidative stress, of course.

Micah:

Yeah, absolutely. And the reason that it's healthy is because it actually signals a different pathway than like smoking would, which is severe oxidative stress, or obesity, or these things that are bad for you that cause an unwanted amount of oxidative stress. So ozone is actually similar to exercise in that it signals a

similar pathway called the NRF2 pathway, where it's actually good for you. So this can be good in terms of athletic performance because it'll help people to recover faster. It'll help them to diminish the effects of those workouts that are really tough or, if you're playing football, those hits.

Micah:

And then on the other side of it, oxygen efficiency. So I know Frank Shallenberger, and you've talked to him quite a bit about this and those types of things. There's two things that can happen to oxygen when it goes into your body. It can create energy or free radicals. So, a basketball player, for instance. If you have two different basketball players, one made 100 points, and the other made 20. You might say, "Well, the one who made 100 is better," but what if he shot 300 baskets?

Dave:

Right.

Micah:

So he didn't have necessarily a very good percentage of baskets that he made, where the other guy hit 100%. The guy who made less points but hit 100% of the baskets would be the better basketball player. So with oxygen efficiency, it's not necessarily the amount of oxygen that you're breathing in in that scenario. It's how well your body is utilizing the oxygen. Because if you're not utilizing it well, you're creating free radicals. You're creating these things that you don't want. So oxygen efficiency is important for being able to maintain higher levels of cognitive performance, for athletic performance. It's just a fundamental aspect of our lives that we all need.

Dave:

Okay. So let's say I'm a power lifter.

Micah:

Mm-hmm (affirmative). You look like it.

Dave:

Do I do ozone before I workout, after I workout? I'm not a power lifter. But just in terms of a strength sport, would you do ozone rectally before your squats? I'm kidding. Like what's the right protocol for performance enhancement with ozone?

Micah:

So yeah, we've been working with some guys in the NFL that are now using it. They're usually doing it prior to the event because that's going to increase your oxygen efficiency. That's going to help you with the oxidative stress that you're going to encounter during that event. And we have a lot of long distance athletes who use it, triathletes, cyclists, those types of things.

Dave:

Use it before, how long before the event?

Micah:

Probably within a couple hours if you can. If you go more than that, totally fine, but the sooner the better.

Dave:

About an hour before. And they're doing it rectally, I'm assuming? Or are they doing it intravenously?

Micah:

Yeah, that's the best. Especially for sports that have a governing body over them, you can't do a lot of those intravenous methods because it's considered doping or those types of ... even though it's just ozone.

Dave:

Ozone is considered doping?

Micah:

It is actually.

Dave:

Jeez, stupid governing bodies.

Micah:

If you take blood out of the body, and you reintroduce it back in, it's considered blood doping. So even though you did it within a 40 minute window-

Dave:

Hashtag not science.

Micah:

Yeah. It's just kind of this crazy thing. But they can do rectal insufflation. That's totally fine. But yeah, if for some reason they got caught doing the intravenous methods, that wouldn't be good, even though there's no way to measure it. What are they going to say? Like, "Oh, your oxygen efficiency is off the charts. You're doing super good with that." They're not going to be able to find anything with that. But you can't do the intravenous methods. So they're usually doing like rectal insufflation within a couple hours before the event.

Dave:

All right. And just a note of caution if you're thinking you're going to do this. Maybe you should do it before a workout a couple of times because it's not that uncommon that you're going to have to hit the bathroom within a half hour of doing a rectal insufflation, so you don't want to be on the field with that problem, just so you know.

Micah:

Yeah. Might be a little uncomfortable.

Dave:

Right. And if you're sitting here going, "Dave, you're seriously having a podcast about putting ozone up your butt," yeah, I am. It's only because it works. Right?

Micah:

Exactly.

Dave:

I wish I could explain in the best language how profound of a difference this was. Because when you have brain fog that's just unending from exposure to toxic mold or Lyme disease, you feel like you're hungover all the time. And the first time I did this, I had five minutes where my brain felt like, "Oh, that's how I used to feel." And then the next day, I said, "I'll do that again." And the next day, you get six minutes, and then seven minutes. And every night I would do this for about 18 months, except when I was traveling, and I'm just not traveling with all the stuff. And it really helped me to restore the reactive oxygen species management system in my mitochondria. I mean, I was really bad. And I've heard this over and over and over from people.

Dave:

In fact, one of my dear friends, his wife has been having problems with mycoplasma, systemic infections and things that have really affected her quality of life. Does ozone three times intravenously, and then comes out and says, "I feel like myself again." And then the entire family gets the flu, except for her, even though she's the one who always gets sick. Like, "Gee, I wonder if ozone had something to do with it?" It did. And so this deserves your attention if you care about the kind of things I talk about on Bulletproof Radio. This just works.

Dave:

What specifically have you seen in the research about mold and toxicity and ozone? Because that's what hit me.

Micah:

Yeah. So I can't point to ... One of the things with the research. There is a lot of really good research. There's a lot of great research out there, but they're usually just trying to ... It's a very complicated thing to understand because it's so fundamental. A drug goes into the body. It's pretty easy to measure because it turns something on. It turns something off. Ozone is assisting your body in homeostasis, which is super fundamental to everything you're doing, so a lot of the research that's being done is just still trying to understand what exactly is ozone therapy doing in the body. We have all these results. We have millions of therapies that are done around the world, but we still don't know to a pinpoint exactly what's happening. So most of the research efforts that are currently being done are being focused on that.

Micah:

Now, there's a lot of clinicians in the United States that still do case studies, that are still doing, "Hey, I had 30, 40 patients with mold toxicity. This was the result I had from it." I can't point to one off the top of my head and specific to mold or mold toxicity. But anecdotally, and something that I've seen again

and again, is that people are experiencing positive results with ozone therapy and mold toxicity. And it has a very potent ability to modulate the immune system.

Micah:

So modulating the immune system is over-reactive, like autoimmune, can help to quiet it down. Underperforming it can help to raise it up. So in the case with mold toxicity, you're suppressed. You're not getting rid of the things that you need to get rid of. Ozone can be really helpful for that because it's going to help stimulate your immune system to work as it's supposed to and bring it back into homeostasis.

Dave:

What's the best strength of ozone to use rectally?

Micah:

So, start slow and start with a little bit and work your way up.

Dave:

What does that mean?

Micah:

And what that means, Dave, would be usually people are doing like 200ml ozone at 10 to 20 micrograms per milliliter or gamma. Now that sounds super sciency and makes it like ... this thing, but it's not that complicated.

Dave:

200 is a small amount of air. 200 milliliters is 20% of a liter, and you can easily hold a liter of gas in your colon. In fact, you should ... Never mind. I'm not going to make that joke. I'm pretty sure for me it's more than that.

Micah:

Yeah. Is that from experience or?

Dave:

Yeah. All I can say is my gut didn't used to work very well. So anyway, it's a very small amount. It's basically two farts worth. There you go. I said it.

Micah:

That's a good way to put it, two farts worth. I like it.

Dave:

And 10 to 20 gamma is not particularly strong, but it's a very sharp smell of ozone if you were to breathe that. But we're talking like a very almost not noticeable what's going on when you put that in, but you'll feel a difference. So that would be a very entry level like I'm trying it for the first time kind of-

Micah:

Yeah. People will do that 10 to 20 ... We call it gamma typically. That's just like saying units. It's not specific or scientific.

Dave:

Like parts per million is.

Micah:

Easier to say. Yeah, kind of. So we say gamma. 10 to 20 gamma is typical to start at. And people usually work up to 50 would be the higher level that's recommended.

Dave:

With more than 200 mls, right?

Micah:

Up to 400 mls, 200 to 400.

Dave:

Only 400? You don't ever go above that?

Micah:

People do, but most of the recommendations ... So this comes from Dr. Silvia Menendez out of Cuba, which I'm sure you're familiar with her and a lot of the work she's done.

Dave:

Mm-hmm (affirmative).

Micah:

She ran an ozone hospital out of Cuba for many years where they did hundreds of thousands of treatments. And so they found that going higher doesn't necessarily produce a better physiological response. So the body seems to take and use what it wants to use, but it doesn't necessarily ... And there are people who will contest this, but it doesn't necessarily, according to what they did, produce a better result just to go higher on the rectal insufflations.

Dave:

Okay, got it. And how frequently can you do it?

Micah:

Usually people are doing some sort of cycling. So what that means is you're going to be doing it on and off. So like five days on, two days off, or three weeks on, one week off. And so people will do it once a day for three weeks and then take one week off. The second month, they'll do twice a day for three weeks and then one week off. They never exceed twice a day, but typically they're doing up to twice a day. And they don't start off on the twice a day either. That's just after a month of doing it.

Dave:

After you've basically built it up. And I look at ozone as exercise for your mitochondria, so you're not going to go from ... I haven't exercised in 10 years. I think I'll go do the crossfit WOD. If you do that, you're going to cause huge amounts of muscle damage and probably clog your kidneys because you weren't conditioned to do that. You have to work your way up to it. And it's the same thing if you just do the heaviest duty oxidative therapy. You're probably not going to like it. But if you start small and just work your way up, you end up having cells that become incredibly resilient, and they can handle way more than you ever thought you could. And when I say handle more, it's in terms of an inflammatory compound, any immune insult and things like that. So your resilience in the face of any kind of disease can go up, which is a pretty amazing thing for something that costs one cent to do once you have the gear. I mean, it's almost free.

Micah:

Yeah. It's really incredible how cheap it is. And one of the other things too that people need to watch out for. If you're immune suppressed, and you have a lot of things floating through your body that you need to get rid of, but your immune system isn't dealing with it, and then you kick it on, what do you think is going to happen? You're going to have a ton of symptoms that do not feel very good. So that's commonly called the Herxheimer reaction. But for people that are immune suppressed that actually have a lot of bugs floating around, if they just start out the gate doing a ton of ozone and just go right into it, they may end up feeling really sick. And it could be a good thing potentially, but it might ... You don't necessarily want to go into the Herxheimer reaction, but it means that the ozone is working. So it's not good, but-

Dave:

Having experienced a lot of Herxheimer reactions, it's pretty uncomfortable. You basically feel like you're hungover, and you're just dragging, and nothing works, and your joints are swollen. And what's going on here is you actually killed a whole bunch of bacteria or whatever else is going on, and then your body had to clean up all that stuff, and it actually makes you feel really bad. However, there's a bunch of techniques that are well known for managing Herxheimer. One is sometimes more ozone can help because it turns on your oxidative handling abilities, but activated charcoal and glutathione, two things that I'm very well known for putting in the world of biohacking. Those are both things that help. Charcoal mops up toxins so you don't have to experience them. And glutathione makes it so your liver can do a better job of letting go of these toxins or processing them.

Dave:

And what's really cool about ozone therapy is you don't do glutathione first. You wait until after you've done your ozone therapy, even a couple hours after because ozone will cause your body to generate more glutathione in and of itself. Your body says, "Oh, I guess I should be able to handle these stresses," so my ability to turn on all of my antioxidant systems just went up, and then you boost it. So I haven't had a Herxheimer kind of reaction for a very long time, in part because I'm exceptionally healthy now. And I do work with people who are just starting on a path of recovery. And if they do ozone, they usually feel better. But like I said, they over do it, then they have to take all the binders and everything else, and usually it's manageable. When I first started this, no one understood all this very well, so you would just feel like crap for six weeks, but at least you were getting better. And I think we're passed that. Maximum you would use though is 50 gamma for using rectal ozone?

Micah:

Yeah, that's typically the recommended range for the rectal insufflation. And that's going to be different based on what you're doing, so all the treatments and therapies have different stuff. Is it okay if I tell a website they can go to to see this?

Dave:

Yeah, absolutely. Sure.

Micah:

Okay. So if you go to DrsOzone, which is DrsOzone.com/Bulletproof, there's a landing page there that will give you access to videos, instruction manuals. I go through all of this.

Dave:

Oh thanks. I didn't even know you did that. That's cool.

Micah:

Yeah, of course. And that's for just all the information about doing ozone therapy, whether it's the practitioner, the athlete, the person who has Lyme. There's really all the information there that you need to know about doing ozone therapy at home.

Dave:

So that's a powerful resource. And I'm assuming you're probably going to try and sell people your ozone gear, the Simply O3 stuff that you make?

Micah:

Well this is DrsOzone. So DrsOzone doesn't sell anything. It's just an educational website.

Dave:

But this is your educational site?

Micah:

I don't actually own it, but I do help out with it and a lot of educational stuff.

Dave:

Okay. It's a community resource for education.

Micah:

Yeah, exactly.

Dave:

All right. Good deal. Awesome. I'm just making sure that, A, we're transparent and, B, I don't even know because ... Well, thank you for doing that.

Micah:

Yeah. The reason I have to separate them out is because of liability, so DrsOzone being an only educational channel. Simply O3 does not educate people.

Dave:

You just sell hardware. I got it.

Micah:

Yep, exactly.

Dave:

Who would've thought that you'd have to do that, but it's actually the same for food. Right?

Micah:

Yeah.

Dave:

Food companies can't say what their food does because clearly food can't do anything. Only drugs can do things.

Micah:

Obviously.

Dave:

The crazy dances we dance. All right. Let's talk about some of the other things. Topical, if I wanted to ozone, say I've got a scratch. I mean, my kids have had the red things creeping up from cuts on their legs and things like that where you're going, "That might be intravenous antibiotics." And three hours later, they're fine because of ozone. But how high can you go when you're doing cupping? What cupping means is you basically run the ozone gas into a little funnel that you stick against the body. How strong do you go?

Micah:

So they can go a lot stronger on that because it's the skin. So with some of the other parts of the body, you don't want to go too strong because there's a limited amount of antioxidants on that area. With the skin, it's not very permeable. It keeps things out pretty well, so you can do a higher concentration of ozone. So yeah, you could go up to 100. So people typically will start at a higher, like 100, 80, somewhere in that range, and then titrate down over time. So if there was an infection on the leg, and somebody wanted to do ozone for that, they would start at a high concentration of ozone, like 100, and then over the course of a couple weeks just keep on lowering it little by little. And it's usually like you said, like a 20, 30 minute ordeal that you just kind of sit there. You let the ozone go in, and then it goes out through a destruct, so you're not breathing any of it.

Dave:

What I do when it's my kids, and I really don't want to give them antibiotics if not really necessary. We don't watch a lot of TV. It's like, "Hey, let's watch something on Netflix. And you sit here. We're going to hold this against your leg or your ear or whatever. Ozone's going to flow into it." We're going to have a

fan on in case any leaks around the thing. And it's pretty painless. And the kids, "Oh, this was fun. I actually got to watch something." It was a non-issue compared to even putting Neosporin on. It's about like the same level of concern. And speaking of something like Neosporin, would you put that on and then ozonate? Would you put it on after ozone, or would you not use it as well?

Micah:

Well, Neosporin is an antibiotic. And I think there's a lot of good things to that, but you're also killing off things that you don't necessarily want to get rid of. So in the case, I'm going to be partial to ozonated oil. That's when you put ozone gas, you infuse it into an oil. It creates an ozonide, which is not the same as ozone gas, has some pretty similar antiseptic properties, and it's pretty robust in what it's able to do. So my personal preference and what we use on our kids is to use like an ozonated oil or an ozonated cream on the body and just rub that into the effected area.

Dave:

But man that smells bad. Ozonated olive oil's a very strong ozone smell. And my kids like, "My hands small like ozone."

Micah:

It is a love or hate. So some people love it. Some people hate it. We did produce one that has a better smell to it because it's made to ... Yeah. We basically just upped the game on it. And we're like, "Hey. Ozone oil kind of sucks right now. What can we do to make it better?"

Dave:

Oh very cool. I haven't tried that one.

Micah:

Yeah.

Dave:

There is great merit, and I have used it under a bandaid. And it's one of the anti-infective things. I've also used it on toe nails and for things like athlete's foot. It gets rid of that stuff very reliably. That said, with my kids, I do ozone. And then afterwards, if they have a real infection, I'm totally happy to put Neosporin on afterwards because we're talking about intervenous antibiotics within 24 hours kinds of situations. If it's a little scratch with a little bit of pus, it's a different situation there. And then what about things like anti-aging, ozone facials or reducing wrinkles and stuff like that. What's the latest with ozone and that?

Micah:

Yeah. So we're hitting on a number of different areas here. There's the anti-aging or the cosmetic. There's the medical or what would be for like chronic illnesses. There's the injections for like slipped disks, which by the way has been repeated studies showing 60 to 70% efficacy on slipped disk. It's amazing. That's as good as surgery for 500 bucks.

Dave:

Oh yeah, Prolozone. Yeah. In fact, I was on the Joe Rogan Show years ago, and he was having back problems. And I referred him to a doctor who did Prolozone, and he was like, "My back doesn't hurt." I totally remember that. You just jogged my memory. It's amazing. I've had ozone injected in my knees, in my shoulders. Okay. So we forgot to mention that earlier.

Micah:

Repeated studies from independent parties, just over and over. You can just google Prolozone ozone injections herniated disk, and you'll find a bunch of them. So anyway, that's another one. And then there's dental. So we're talking about cosmetic right now and its uses for anti-aging, cosmetic. Doing the medical ozone therapies like the rectal insufflation is going to reduce oxidative stress, and our oxidative stress increases as we age. So that's one of the big benefits is that it's mediating it.

Micah:

But if you're talking specifically about wrinkles, scarring, those types of things, then people will actually do little injections into the area to help with the wrinkles. A lot of times they'll mix it with like PRP, so they'll do the platelet rich plasma. That's where you pull the blood out, you spin it down, and you have these platelets that are going to have a lot of growth factors in them. They mix that with the ozone, and then inject it back into the area. So what that does is, rather than Botox which shuts the body down essentially. It just paralyzes it and says, "Hey, you're not going to work here anymore so that you'll look a little bit younger for a while." This actually helps to regenerate the body to work as it's supposed to.

Dave:

Interesting. This may be a little bit of TMI, but I was doing electrical stimulation basically on my glutes.

Micah:

Nice.

Dave:

And I was working on basically I was circling between my glutes and my feet. And I have some very high end electrical gear. And unfortunately I'm laying there doing this, and I unplugged the electrode pad, so I had bare metal against my butt. So I have these three really deep ... It was a little spicier than normal, but a metal electrode will drill a hole in your skin. So I have these three spots on my butt where I probably had four millimeter deep holes. These are real serious holes.

Micah:

Man ... Yeah.

Dave:

And I didn't really feel it very much, but afterwards like, "What is going on here?" So I have these three red scars like much deeper than you would ever imagine, and the self-cauterize as you go. So I just injected all of them with ozone so that the scars will actually heal faster. So I have photo evidence of this. The problem is I'd have to show you my butt, so I'm not posting these. But I'm actually tracking them with photos to see what happens because otherwise these are scars that would take three or four years to heal. They're very, very deep red scars, so it looks like I have like three pimples on my butt. It's just not okay. So I'm counting on ozone because I really care about the contour of my butt.

Micah:

Well, it's important, right? I mean the shape and everything.

Dave:

Just one of those things for healing scars. You made me think of it.

Micah:

Yeah. And I was just telling my father-in-law. He has this nasty scar right down his finger. He was trying to catch some ... He was making wine or something. Anyways, something fell down. He tried to catch it, and it basically sliced his finger off. He's a chiropractor, so his hands are pretty important for his trade. But he has this finger that is all messed up and kind of looks like this. It's all bent. It's not straight anymore. And so I was encouraging him to try to do the ozone injections just right into the scar. They're these tiny needles. They're just these little cosmetic needles, so they're not deep. But what that does is it helps the scar to break up a bit, helps the body to regenerate that area and will help with the healing time, so it won't take as long to get totally healed.

Dave:

So we keep sounding like ozone fanboys here. But I'd say for scarring, yes. For disks, yes. And the thing you just mentioned is actually where I got my start doing ozone a very long time ago. It was from ozone dentistry. Because right now we have a big problem where when people are doing fillings and root canals, they can't effectively sterilize it, so you get these smoldering infections underneath that are well established in functional medicine to lead to weird problems later. But an ozone dentist goes in and sterilizes it with ozone gas. They have special needles that they use to inject around the gum and all. And then they put on whatever cap or even root canals that they were going to do, and then you don't get rot inside the tooth, which is astounding, and it's something that should just be standard practice in dentistry, but it's not yet. Are there other uses of ozone besides that in dentistry that I just don't know about?

Micah:

I mean, there's a lot that they're using it for. They're using it for abscesses, sores. People are swishing the water. They're sterilizing their tools with it. And Dr. Valerie Kanter out of UCLA is trying to get the standard to be ozone instead of Clorox. So the dentists are still using bleach, which is crazy because they're putting bleach right into the mouth. Who wants that? They kind of try to cover it up and like, "What is that?" "Well, don't ask," kind of thing. But anyway, they're putting bleach in the mouth as standard procedure for sterilizing things. The fantastic thing with ozone is, while you can't breath it, they'll just put a suction in the back of the throat. As soon as it's done, it just reverts back into oxygen, so there's no caustic effect to it, and it's able to sterilize those areas of the tooth that really need it. Dentistry is probably the fastest growing field for ozone and is the most likely to get the FDA approval for the equipment and those types of things. So I think dentistry with ozone is just a fabulous fit.

Dave:

All right. That is profound. So at this point you're listening to this going, "I didn't know that ozone, which I thought was a pollutant could do all these things," so we're talking about mitochondrial restoration and enhancement, anti-infectious stuff. There's anti-aging, anti-scarring and just a whole host of things. And it's my supposition to you that if you want to have a household that is more economically effective and safer no matter what weird flus, colds and other stuff is floating around out there, you really aught

to have an ozone generator at home and know how to use basic rectal and topical ozone because you will feel better for decades if you can do it. And it's that big of a deal. So, Micah, thanks for coming on to just kind of to walk through what you see, what people are using your equipment for, and for putting together that community resource. Tell me the URL one more time.

Micah:

Yeah. The URL is DrsOzone, DrsOzone.com/Bulletproof. So it's DrsOzone.com/Bulletproof. And if people want to reach out to me, they can just reach out to me at Micah@DrsOzone.com, which is DrsOzone.com.

Dave:

Okay, got it. So hopefully you'll hear some cool stories about ozone therapy and whatnot. I think it's just worth it. And this is one of those things that is just coming online. I asked Mark Hyman, or maybe someone else asked him.

Micah:

People are catching on, man.

Dave:

Yeah. Mark Hyman's been on the show, dear friend. And we're at some medical conference somewhere, and we're both on a panel. And the panelist moderator said, "Hey guys. Over the next five years, what are the new things coming online that are going to be the most effective." And Mark said, "Actually I think it's ozone." Like the time has come, and I'm 100% in alignment with that.

Dave:

So part of my job here is to shine the light of attention on stuff that really works that is cost effective. And one of the things that really attracted me to your stuff is you're saying, "Look, we got the cost down." So instead of being a few grand, it's 950 bucks. And this is for hundreds and hundreds of treatments that you can use on your whole family as long as you know how to do it right. Number one thing, don't breathe the stuff when you need to do it. And even before you stick it somewhere, go to a doctor. Try it once. Get taught how to do it, or at least look at the videos on the DrsOzone site that are going to teach you how to do it safely. So you can harm yourself if you don't know what you're doing. Do not breathe it. Do not put it on your dogs and stuff like that. Any animals, any people that breathe this, it can be really harmful. But when it's done properly, it is very safe and really effective.

Dave:

Thanks for coming on. And the website, DrsOzone.com, DrsOzone, and that's where you can learn more, and I guess slash Bulletproof.

Micah:

Yeah. That's the specific page that runs over like biohacking kind of stuff. DrsOzone does have more stuff that's going to be more medically based, but yeah.

Dave:

Okay. So you put together some special stuff you thought people would like. All right. Good deal.

Micah:

Yeah, exactly.

Dave:

Just go to the website however you like to go there and learn a bunch of stuff. It'll be cool.

Micah:

Yeah.

Dave:

All right. Thanks man.

Micah:

Yeah. Happy to be here. Thanks.

Dave:

If you liked today's episode, you know what to do. Get a bag of ozone and stick it ... Okay, you could do something else as well. But what I would like you to do though is visit the webpage and just learn something about ozone therapy. I've got a few things on the Bulletproof website. I mentioned the other podcast with some of the luminaries in the field. But just take five minutes, see what this is, and put it in your arsenal of things you can do to increase your biology. And if you're ever really sick and nothing's working, I'm telling you, ozone, ozone, ozone.