Introduction to Mark Squibb and Levo

Welcome back to the Reverse Alzheimer's Summit. I'm so excited to have Mark Squibb here today. I've used his product Levo to with my patients and our residents at Marama for years, and it's been so exciting to see the phenomenal changes just with adding contrast.

Oxygen therapy. Mark is a compulsive inventor. His current flagship, Levo to evolve from a family health journey to what could be the most powerful, effective and affordable health tool on the planet.

Since the invention of Levo two, the platform has become a cornerstone for health, with nutrient utilities that resolve addictions, minimize all illness, and roll back age.

Most users can should 10 to 20 years of lifestyle age within just months. This journey was prompted by family members with health issues. Mark spent about 25 years developing Timestream Software, which was sold to Seagate.

And also he has multiple patents. So Mark, thank you so much for joining us today to share some of this wisdom. Well, thank you, Heather. I'm excited for our listeners to start getting the benefits of conscious oxygen therapy and all that.

You've learned at Levo, too. So first, can you tell us tell us what contrast oxygen therapy is? Well, it's a it's a technique to send as much oxygen to and through the brain and the rest of the body as possible.

I basically developed it, you know, in pursuit of some family goals. Pretty clearly, one of my sons was injured, had a chemical injury where he lost, you know, had some brain damage.

And, we were able to see partial or I should say significant reversal of that within about 48 hours of the first training. I can share those results, hopefully.

What Contrast Oxygen Therapy Is

And then, my grandmother had had, Alzheimer's and very badly interfered with her quality of life as she got older. And then my father also had a stroke.

Unfortunately, we didn't have little to for my grandmother, but I did for my father, and we were able to reverse his stroke. And I believe, I'll not erase he's 85 now and erase his whole concern about developing Alzheimer's.

So really the whole conversation about, you know, brain health and maintaining healthy brain function as you roll forward, either for young athletes, something's wrong or if you're getting older and you want to stay good, then, you know, that's kind of where I was coming from, because reality is it's like, well, my grandmother, I've got, you know, some of those same risk factors probably inherited as well.

So, you know, I'm being a little selfish in terms of developing these products. But at the end of the day, you know, having a brain that works better is a blessing every day of the week.

Absolutely. So if somebody were to be using levo to like my patients, I resident. Can you describe what that looks like? How much time does it take? What what kind of equipment they need? How does the equipment work?

Okay. It's very simple. So what Levo two does is it allows somebody who's exercising to vary the amount of oxygen that's inside their breathing mixture while they're exercising.

And there are basically two modes. There's mountaintop mode, which is if you're on a mountain top, your body will open up and it will be as efficient as possible and move as much blood as possible through the brain and through the vascular system.

Then you sweat through a switch and it delivers as much oxygen as possible. And that by switching back and forth between these two modes, you can track the body into super oxygenating the brain.

So from a user perspective, it's basically exercise or hypothermia or something because of physiological challenge. And that by doing the, you know, by using oxygen in this way, you can increase the oxygen level to the brain.

Like for example, we've got fairly large protocols which will create surges of oxygen to the brain in the blood plasma up to 24 times normal. And when people do these protocols, they just massively oxygenate the brain.

And so that burst of oxygen is awesome for brain health, either for optimizing basic daily performance or if you're trying to recover from something. It's great for driving detox because the blood flow through the brain helps the brain detoxify.

And, so what does it look like? Basically, exercise with a mask on your face for 15 minutes and then your very your oxygen mixture and your exercise within your own capability.

So it's a 15 minute workout. Very. One of the things that surprises so many people that I talked to about this, and even so, it still surprises me to this day.

It really only takes 15 20 minutes for you to get on the bike. We use a bike or get on a treadmill, some sort of stationary exercise equipment and get hooked up to the mask and you can really get an amazing workout.

I swear, like more on the level I do than I do sometimes in the sauna, particularly in 20 minutes. It's so quick and I often I'm sore afterwards a little bit.

You know? I feel like I've gotten a good workout and feel so energized. It's really an amazing way to spend 20 minutes. It's so efficient. And so what we're talking about basically is there's three sort of concentrations of oxygen levels, right.

So typically we're we're breathing 20% oxygen. And then your system has an oxygen concentrator and then a reservoir, basically a great big bag of concentrated oxygen that's about 80%.

And then somebody who's on the bike or on the treadmill, who's working, who's doing the exercise is flipping back and forth between that 80% oxygen and zero oxygen.

How Levo Works in Practice

Is that right? Oh, it's actually they flip back and forth between a simulated altitude of about 10,000ft. So it's kind of at the top of the mountain. No not really.

Or it's about the same oxygen concentration that you experience when you're on a commercial air flight. So but because you're sitting on the commercial air flight not doing anything, you don't notice that they've.

Reduced the oxygen level. So basically, yeah, you switch back and forth between low oxygen and high oxygen. The oxygen level is about four atmospheres or 85%.

And so the low oxygen or simulated altitude tricks your body into being super efficient at moving blood. And then the high oxygen basically blasts it.

What's interesting about this is like age, you know, like, for example, I've got young kids that have started using Levo to as young as eight. Okay. And then my father uses it at 85.

And so one common misconception is you don't have to be a super athlete. The ability to use the simulated altitude basically means if you're I'll call it not that strong and worked out in a long time, you can still get a great workout and a great oxygenation experience, even if you can only exercise a little bit.

Because what the altitude function does is it leverages the exercise you can do so that you get more cardiovascular activation, and that makes it usable by people of literally all ages.

I mean, I think our oldest user is about 95. He used to run a interesting TV show that talked about the price of things. If you know who I'm talking about, I think he's 95.

Wow. So and then you also have athletes that do use this, right? You they're professional athletes that you work with. And this is kind of like their Kryptonite.

This is where it really helps them excel and really perform. Yeah. That's correct. So like we work with, quite a few top, top level, hockey players. I can't use brands, but also the most recent big football game, that particular team takes, four of our systems prior to every game.

So if you notice older athletes doing very, very well beyond their, expectations based on their age, like the older people that throw balls and football games.

Those guys, I can name three of in three out of the four last very popular football games that use our product before the game. That's great. Yeah. So people are noticing that they are, you know, whether it's brain function or muscle function or, you know, that ability to really perform is is being elevated.

Now, I'd imagine and certainly what I've feel like I've experienced with my patients is that it not only affects brain function, but you get better liver function.

Like you mentioned, you're getting better detox. You're probably getting better immune function, lots of other things that maybe we haven't measured or explored, but it's just sort of common sense because you're getting better perfusion, better circulation to all of the tissues in your system.

So have you I know that you have different protocols, and certainly brain is what we're here to talk about. But all of it's related, all of it's connected.

I know you've talked to me about sort of universal improvement in the people who use the Vo, too. Can you talk a little bit more in depth about what what all you guys have seen?

Sure. You know, we got one protocol. It's really engineered for neurological performance or neurological recovery. And that particular protocol, the hybridized XR, uses a number of supplements to drive different categories of detox.

And that, it's interesting because you can't really separate, you know, you can't detoxify the brain without first detoxifying the liver. And so like the protocols, they start out by super oxygenating mostly the detoxification organs, liver, kidneys and so forth.

But once they do that the oxygen travels elsewhere. And it sets up this situation, especially with the exercise that when you get the heart beating and you get the body fluids spinning around the circuit really fast and moving, then what happens is the detoxification really kicks into high gear because as the blood and lymph move through, whatever organ has a problem, that garbage gets swept into the bloodstream, filtered through the liver.

But say, for instance, your heartbeat is twice as high or three times as high as it is normal. Lee, what'll happen is that blood gets pushed through the filters 3 or 4 times faster than normal.

Brain Health, Detox, and Whole-Body Benefits

Kind of like the oil filter in a car. If you want the car to filter the oil, you rev the engine. Okay? And then that enables the filters to do a better job.

So like with Alzheimer's or any of these conditions that involve a combination of toxicity, you know, it really starts by number one. And most people don't understand, like you go to a doctor and the doctor says, hey, do you exercise?

Well, most people that are in a degenerate state of health will answer that question with no. Well, one of the things that exercise will do, whether or not you're using the VO2 is it basically turns the fluids over in the body so that the filter organs, kidneys and liver have a better opportunity and better basis to detoxify.

So, you know, like with liver to in that process, we are first when the heart when you're breathing the oxygen, the first thing that happens is those detoxification organs get a blast of oxygen.

So you're bumping up their metabolism. So not only do they have more flow, but we're basically supercharging the detoxification organs before you start.

So you know it when you think about the brain and nervous system, you know, there's really the whole body is an approach. So when you oxygenate the whole body, literally every organ in the body will have an up an increase in its ability to do its job.

So its energy production increases because you've supplied it's oxygen. And when the body's super oxygenated, just like, you know, the history of hyperbaric people go and hyperbaric and whatever's wrong with them, whether it's neurological or Joe Namath, with all the football injuries and the concussions, you know, over a period of six months, his brain healed and he's basically normal.

And that higher level of oxygen just enables the body to heal so much better than it would otherwise. And like with the VO2, what we see is dramatic reductions and, you know, very significant improvements in the rate at which people heal.

Or if your agenda is not, you know, or if your agenda is to maintain your quality of life, you'll stay better, faster, longer, much like you do with your own patients.

So most people are familiar with exercise, right? Movement. Everybody gets that and that. That's healthy for you, right. If only we could put that in a bottle and then the other piece that you mentioned was hyperbaric, where you're getting increased oxygen or concentrated oxygen, and you're kind of pushing that, using pressure to push that into the body.

But you're doing this kind of with the VO2 is is like this mixture, the combination of both that really potentiate each of them. So you're getting that increased circulation plus that higher oxygenated state.

And that's where the magic happens. Is that right? That's correct. I'll try to tie this together into three three different pieces. So the first thing is people have kind of heard of hyperbaric okay.

Hyperbaric is like thinking your body is a sponge and you take the sponge in, you soak it in water, okay. Just like in a bath okay. So then you take exercise.

And exercise is like taking the sponge and holding it underneath the shower. Okay. But there's another version of exercise. It's called high intensity interval training where what you do is you take your body and you exercise.

You go as hard as you can recover, hard as you can recover in that special version of exercise. What it does is it basically activate your vascular system so that you're pounding and flushing and pounding and flushing.

With live O2, you're pounding and flushing, but you're supercharging all of the organs. So it's like, you know, the high intensity interval training with a turbocharger.

And so when you take a look at how long it takes to get results with a hyperbaric chamber, it's like, yeah, you do 90 dives, 90 hours in hyperbaric chamber, get get great results over a period of six months okay.

But when you use the exercise combined with the oxygen, with the supercharging, you know, we see results literally in weeks. So it's the same result, in a much shorter time just because that, you know, we're just leveraging the body's ability to breathe to in an active world as opposed to, you know, soaking a sponge versus spraying a sponge with a, you know, like a, a shower or a, you know, a nozzle so that you really move things out.

Does that make sense? Yeah. Yeah. It's like that analogy. So another thing that you mentioned was traumatic brain injuries. And I think most of our listeners know that traumatic brain injuries put people at much, much higher risk for developing Alzheimer's.

And part of that is because the one is a reduced reduction in perfusion or circulation in the brain. Another part of that mechanism is an increase in inflammation.

And another thing is that that inflammation and that that trauma can cause the brain to basically try to protect itself. And some of those mechanisms of protection include beta amyloid plaques and how proteins.

So with your system we see some improvement. I actually use levo to for patients who have TBIs, regardless of how old they are. Use it with teens and seeing great results.

And so my question is what exactly is going on? Are you reversing all of those mechanisms with Levo two or just some of them? How do we get these great results turning around the the TBIs?

And also, does it have to be right when it happens or can it be decades later? Well, let me let me start with the beginning. Okay. So when you first get, you know, whack your head.

All right. So I'll just hit myself up the head, okay. The impact of, you know, my skull decelerating is going to squish my brain against the one side.

And then most of the time, the brain is going to bounce backwards in the opposite direction and get a reverse squish on the other side. So what you see in terms of TBI is you'll see a symmetric pattern front back, you know, side to side where you got similar damage on both sides.

Okay. So one way to think about that is a bruise. So when you squish the brain up you basically damage the vascular system. And so like when somebody hits their head a lot of times the area that's that's injured stops working okay.

So you see people that have had brain, you see personality shifts, mood shifts and then what happens is over a period of roughly 3 to 5 years, the brain will say, oh gee, I can't use that part anymore.

And it will start building pathways to work around what's not working. Okay. So and that's where you get into a lot of the changes that happen as a result of, you know, the TBI.

So the. And then over time, eventually the brain figures out what happens with the blow. Two is like, we've got a specialized protocol that's, you know, somebody that's gets in shape is when you use what we call brain oh two, you challenge yourself very hard so that you can hear your heart pounding in your head.

And what that does is it creates enough pulse, pressure a lot of times more or less, to break through or squirt blood through the areas of the brain that got squished.

And when that happens, it turns the blood flow back on to those areas. And interestingly enough, we've seen those areas actually start working again in two hours.

Wow. That's an, Well, it's amazing because they're not really injured. They're just kind of asleep because the blood

supply to those tissues. So that's one of the reasons we, you know, if somebody is able we always try to take them to the, to the brain or to and the, the recipe for that is they exercise under low oxygen conditions enough to like and hear their heart pound in their head.

Now I realize that maybe beyond the physiologic physiological capacity, a lot of your audience, but there's a lot of athletes out there that have have had a recent concussion where if we can do that, then what will happen is they can often see and experience, a restoration of function, because as soon as that part of the brain gets oxygen, it'll switch back on.

And, but anyway. And that's for, I'll call it younger athletes. And to your point, so what we see is basically a timeline of somebodies recent concussion, meaning within the last three years, a lot of times that you can see them come right back online.

If they're five years, go post concussion. What happens is they'll come back online immediately, but their neurological scores will drop for a period of about three days as their brains figuring out how to unwind all the neuroplasticity.

And then in a week, they're like, oh, like I feel better. So, you know, the first question is really a plumbing problem, which is when you have a concussion, you damage the vascular system and when you hit it or squirt it with enough oxygen, a lot of times that tissue, the brain tissue that's sitting there dormant, can just come back to life.

And what's amazing about that is you see people literally saying, wow, I feel normal. One of the most interesting ones is we had a color pro football player that was I was training in Denver one day anyway, and he I didn't realize at the time he lost the previous season and he reached around the back of his head and I said, well, I feel a tickling or a tingling in the back of his head.

And I told his trainer, I said, well, what's happening there is the injury. Or I wasn't familiar with his history, but that injury was basically healing.

It's time anyway, to get to your point. So number one is there's a time zero or very fast response. And then the other thing that happens is if you take those areas that have had a an injury, concussion or whatever over a period of years, like five, ten, 15, and what happens is that those that brain tissue lives in the low oxygen state.

So when it comes time to grow proteins or full proteins to manufacture, try to heal because the supply chain of nutrients and oxygen is damaged, then those that brain tissue lacks the energy it takes to properly, you know, to heal.

Okay, so if somebody is going to steal injury like now, football players that have played some number of years and then they end up with these amyloid artifacts and various other things once they start to oxygenate the brain.

At that point, what will happen is they'll have the resources to create better recovery tissue. So you'll see sort of the tendency over time, not only for them to I'll call it ten to a well, their brain pictures will start to look more normal, but also their dysfunctions that occur as a result of biological or, you know, injury will start to drift back to normal.

I mean, we've got people that are, you know, five years post major brain injuries that are actually feeling starting to get sensory back.

TBI Recovery and Neurological Repair

And yeah, kinetic movement, back and arms and legs that have been paralyzed for 5 to 10 years. So anyway, that's a question of the timeline. Yeah. You turn the plumbing back on, they get a response that tissues springs back.

But if there's actual healing to do, keeping that tissue in a highly oxygenated state enables it to heal more and more quickly than it would otherwise.

Does that make sense? Yeah. And so there's so and that speaks to your amyloid proteins and various other things I'm sorry. No, no. So the concept here is that it's not black or white right.

There's tissue that healthy like you might see in a child who's who's neurologically still developing. Right. That's really healthy tissue that's going in the direction of learning and memorizing and, you know, getting good concepts into their brains.

And that's that's kind of like what we would want. That's kind of ideal brain tissue. And then there's post stroke where maybe there's been an ischemia event and there's literally cells in the brain that just die.

What you're talking about is some gray area in between where maybe it's not fully optimal neurological tissue and it's not completely dead neurological tissue, but it's somewhere in between.

And what we can do it as we oxygenate it and perfused it with the nutrients and fluids and everything else that needs, and take the trash out is we can go more in the direction of that, like developing youthful, highly optimized brain.

Yeah. So I think there's probably four different categories now. There's one healthy brain tissue that's well oxygenated that works like it's supposed to.

Next down I'll call it brownout where you got tissue. That's quote unquote not mechanically injured, but it's not working to cause the blood supply to it's been compromised.

So it's trapped in a low energy state. And if you can get blood to that. So if you have a stroke, then you usually have a fossil. I have the stroke tissue downstream of that.

Some of it will be killed or, you know, damn irreversibly damaged. But then there's usually a gray zone around that that has if you could get oxygen to it, it would work normally.

And and then another category is like say for instance in as all Alzheimer's condition where you've got a systemic situation where there's a chemical or toxin load across the brain.

So the entire brain's not working right. So it may it's still working, but it's not working right, because that it needs to detoxify. And then the fourth category would be like, okay, somebody that's had a stroke where you've had actual destruction of nerve tissue, tissue.

And as a result the brain needs to, quote unquote, go grow new, new brain tissue. The reality is, in terms of our customer base, we have people and each with each one of those verified injuries, okay.

Like and even the fourth case, I mean, we've got people that are 50 years old that are recovering from stroke. And, you know, the survivor, I'm talking about a guy named Ben Menefee.

He had a severe brain bleed while he was in, in Afghanistan. And the completely surprising thing about him is doctor says you'll never get out of the wheelchair, etc..

But, you know, I think he's 5 or 6 years, and every time we debrief him, he's got, you know, more feeling in his arms and legs that have been paralyzed for the past year, which gives me a basis to assert that, okay, he's not just turning on tissue that lost its blood supply.

His body's actually regrowing nerve tissue that his previous doctors told him he should not ever expect to regain. So, and we see this quite a bit. Almost everybody that that is in here will gain some.

You can't look at them and say, and certainly you never want to make a promise that they'd be able to grow anything back. But I do know, as a matter of observation that what the neurologists say can grow back versus what God says or nature says, or grow back or absolutely not the same.

And if you supply copious volumes of oxygen to the organ or the brain, then a lot more, well, it'll grow back better than it would if you didn't. Which is why you see such great results.

I'm sorry. Please repeat. There's certainly more potential for recovery if you're delivering everything that the body needs to heal. Correct. So like when you go and you look at the research around hyperbaric and stroke care and stuff like that, or, you know, the John Amos story about, you know, his recovery from so many years of football injury.

You know, supplying the brain with large quantities of oxygen always helps. You can't say how much when you begin, but if you know, they were to treat every stroke by, you know, prescribing hyperbaric chambers or something like that, I think the outcome would be vastly better than it is.

And it's just a question of, you know, give the body as much oxygen as you can. And when you do that, you're going to have a better outcome. Or if you're looking to not or to preserve your brain function, you know, if you give your brain as much oxygen as possible, chances are it's going to continue to work better.

So there's two ways to look at it. You can look at it from a recovery, and you can look at it from a prevention point of view. I'm I'm kind of big on the prevention based on my family history.

It's certainly a lot easier to prevent this kind of thing that Alzheimer's, than it is to reverse it. However, a lot of people are not as motivated early on, and it's certainly harder to measure prevention than it is to measure reversal.

So with level two, a part of the magic is actually the CO2 that's generated when you're in negative O2 and oxygen isn't. I know, I know, we're talking about delivering more oxygen as if it's only good, but you can't get too much oxygen, right?

Like, tell me how we balance that here. Well all right, so when you use the word oxygen, most people jump to the conclusion that oxygen is very good. And the truth is it is oxygen is very good.

The challenge with oxygen, however, is that if you only breathe oxygen, then like, for example, oxygen alone is a vasoconstrictor, which is a big word that says okay, it actually causes the body to compensate for axis oxygen by shrinking the arteries and reducing the amount of blood that it moves around the body.

Okay. So that's a that's a misconception. So like for example, if you just give somebody passive oxygen then it's it's helpful. If you give somebody oxygen while they're exercising then you've got the exercise basically increasing the blood flow through the body by creating demand, which also causes it to create carbon dioxide.

So the vaso constrictive effect is offset by the demand and the production of carbon dioxide though. So you end up counterbalancing it. So you will end up with a much higher level of oxygen than the third level of that is we actually developed the technique of, you know, using a low oxygen mixture mixture to vaso dilate the entire body.

So like for example, if you mix low oxygen mixture, then what happens is the body will adapt to the low oxygen mixture to just open the pipes up and maximize the blood flow.

And that's where we kind of came up with, you know, the brain protocols, just for example. And this is what we did with my son and I do routinely myself, I invented the adaptive contrast technique when I went up in the mountain skiing, and all I could hear was my heart pounding in my head.

When I researched that, the heart pounding in the head was because I was at, I don't know, 14,000ft or something like that. My body was like, oh, well, I guess it was more like 12, but the low oxygen mixture says, wow, I need to get as much oxygen out of what's left of Mark's brain.

Okay. And then when that circuit opens, by the time you hear your heart pounding your head, your body's approximately squirting four times more blood through your brain than normal, okay?

And four times more blood is when you hear your heart beating your head. Okay, so it occurred to me that just like, okay, if I could get that flow pattern active and throw a switch and send more oxygen to the brain, to the brain, while there's four times more blood, then that could be significant.

So I tried that and I did an IQ test before and after, and I have no obvious brain damage. And what happened was that when I measured my IQ on Monday and I did this protocol, and then I measured my IQ on Wednesday, my IQ went up by 17% between Monday, Monday and Wednesday.

And I'm like, wow, that's really interesting. Okay, so when I go to work or if I have to manage or solve hard problems, you know, having my brain work better because of that experiment and being able to just maximize that oxygen.

Number one, it like the chances I'm going to develop a, you know, I'll call it Alzheimer's or whatever are lower in my perception. But the you know, the principle there is about the oxygen using the low oxygen tricks the body.

And if you rapidly switch from low oxygen to high oxygen, you can supercharge. And that supercharging of the brain, for example, is easily measurable and has improvement in cognitive and neurological function.

I hope I answered your question. Yeah. No, absolutely. And what I get excited about as a clinician and as a, you know, a cheerleader for people doing this kind of thing is like, imagine if you start combining that with then good sleep and great nutrition, really good food and a great environment and loving relationships.

Like all of a sudden you just have this recipe. You have this formula for really, really improving cognitive function and just like well-being, right?

Enjoying life more. Well, and that's interesting. One of the places we went next in the scenario, which is, you know, now that we had this ability to like, like if you take the brain example, there's oxygen, the brain, but there's also the process of quote unquote, flushing the brain fluids out the lamp, etc.

by, you know, basically exercising in a way that turns the fluids over. So like, for example, if you're trying to do help somebody that has an Alzheimer's or some toxic type of problem, all right.

If you preload the organ that you're trying to detoxify with, agents that help with detoxification, like it EDTA or glue, thiamin or DMSO or whatever, then you can actually use the combination of the detox agent, the flush process of the high flow, plus the oxygen process to expedite any sort of healing process.

Oxygen, Exercise, and Mitochondrial Energy

So, you know, with respect to Alzheimer's, you know, what we've done is we build out, you know, a program that actually creates a daily cycle of, okay, use these detoxification supplements, followed by a workout at a particular time, followed by a food or a meal that is very rich in substances that the body will use to, you know, grow back or heal brain tissue.

And we call this or what we call it neuro fusion. We've used that with a few people with, Parkinson's and Alzheimer's, etc. so that's another point, which is once you've got this oxygenation tool, you can combine it with literally any other healing tool to help people achieve their goals or recover or whatever they'd like to do.

Oh, okay. So, I did. So then as you combine these things together, it seems like we're going to get more and more and more potential for healing, right?

It's not about just one thing on its own, although oxygen is one of those things. We certainly see this with people who have sleep apnea that when they have sleep apnea, we see quick degradation in cognitive function and in energy levels.

I mean, in mood. Everything is affected when you don't get enough oxygen to the brain. So we know full well just

from seeing what happens with sleep apnea, that not getting enough oxygen is going to cause damage.

And then this is incredible because what we do is we go to the flip side of the extreme right, let's super oxygenate people and see what kind of healing we can get.

Yeah. So I think the way to generalize the healing function is really just by looking at the concept of quality of life. So like, you know, we spoke with my dad a few days ago.

And, you know, the thing that was novel about him is he's 85 years old. He still has three girlfriends. You know, he still lives pretty much by on his own.

And if you take a look at, you know, other members of my family that turned 85, by the time they were 85, they they really had lost their quality of life or enough of it to say, well, you know, you know, what's what's life about.

And so most of our users, by the time they've used to for a couple of months, you know, then that their list of health issues will go from this long to about this long.

All right. And if they look at that as a clock that turn backwards, they'll usually roll back their health issue set by 10 to 20 years. Okay. So back to the concept of health is like, you know, we look at aging well the real you know, I wrote once that the definition of age is when you start to measure time.

Is that interval between doctor's appointments. And once you regain your health and your body starts working like it did before. Okay, not only do you feel younger, yaki younger, you're less likely to get sick.

You got your vitality. And life is about living, not about, you know, managing. You quote unquote long, extensive growing list of health problems. And, you know, I was like, that's where I'm really at.

Which is like, look, man, I want to live and kick ass as long as I can. I you know, started having kids again when I was 40. You know, I'm, I'm 60 now.

I was like, well, you know, we had a big party yesterday. We're chasing Easter eggs. And yeah, the point is not about the Easter egg was like just feeling like, oh, there's nothing wrong with me.

Let's go have some fun. And, you know, just to have everybody in that deal, like, yeah, getting older is fun. Let's go. Pardon my French, but kick some ass and have some fun.

There's so much freedom in that. Right? And also I think as a society we think of our first of all, we don't really acknowledge that we're going to get old and there's a lot of denial around what's going to happen.

And then when it does sneak up on us, because we haven't really thought through what that's going to look like in a realistic way. Now, we at this point, a lot of people are just moving into homes and hopefully have the financial capacity to be in a nicer home.

But if you're in one of those homes, they're you're getting fed just cake and ice cream. And right, everyone's saying, well, just enjoy yourself, kick back, watch some TV and and enjoy some carbs, right.

Because they're inexpensive and and our brains are programed to want more of them. But that isn't what sets us up for success or health. And and if we can re-imagine a world where, okay, you do need some extra support, you go into a place that really is supporting your health so that you can engage with your family so that you can show up for Easter egg hunts, so that you can garden, so that you can engage in relationships, whether that's with your family or in your community, in your church and government systems. Right.

They can you can be maybe even in work if you want to keep doing that. So it's just an exciting thing to imagine that as we age, we don't have to become a drain on our families or our communities, but we can actually continue to contribute.

We can be an asset. That's one of the perspectives I'll offer, which you'll probably recognize. And I expect a lot of the people listening could, would too, which is, you know, there's, you know, if you're in my time alive for your time of life, you know, you have parents and you got kids, and, you know, something happens to one of them, all right?

You end up with all the stress of trying to take care of them, okay? And, you know, like, for example, if you've got a parent or grandparent with Alzheimer's and you're the care provider or the person who's responsible for getting them taken care of, the fact that they're losing function, you know, creates stress on you.

All right. And even if it's impossible for you to help them with the product, one thing that's the most important, it's just like when the little oxygen mask pops down from the ceiling in the airplane, you know, the instructions are you put the mask on yourself before you take care of anybody else, because if you lose it, it's like in my world, if I lose it, everybody in my family loses it because everybody looks to me and they're depended on me to take care of them.

Okay. And if you're that care provider or the anchor that, you know, keeps your family and keeps it responsible for making sure if you go down the the damage and the the loss of quality of life to everybody in your world.

So I would, you know, as a, as a footnote to anybody that's listening is like, if you're responsible for other people, then the other thing that you owe to yourself and to them is to take care of yourself first.

So a lot of people that I run into that are in this process of trying to take care of somebody else is like, please, please, please don't forget to take care of yourself first.

And that's one of the reasons, like, you know, I'm I really committed to, you know, this, this whole the VO2 thing is because it was one of the tools that not only I could help other people, but, boy, I could protect myself from so much.

And now that I've kind of aged into it, it's like, you know, that is really, really important. And so, you know, please, if you're listening, don't forget to take care of yourself.

Another two is a tool, a tool for that. A year or so ago, I heard from a couple, they were up in Oregon, and she reached out because they were interested in Marama.

And feasibly they just. You know, wasn't going to work for them to move down. But they asked before we got off the phone, she said, well, what's the one thing that I could do to help my husband?

Her husband was starting to go through pretty rapid and scary cognitive decline, and she had been disabled for many years and unable to work. So he really was her caregiver.

And she was again, like understandably just sort of panicked. Like if he drops out of, you know, awareness that he's not able to care for me, I can't care for him.

So they were feeling pretty desperate. And I said, all right, give me two things that I can do. And I the diet, of course, is one, but the other was level two.

And so over the course of the next few months, I didn't hear much from them. I think you guys at level two to hear it a lot from them. But, you helped and supported them.

And then three months later she wrote back and said, you wouldn't believe it. We've been measuring his cognitive function, and they used brain HQ to measure it.

And so she said, you know, and spatial awareness he's here. And it had gone from like 80% to 95. Right. So just incredible in in terms of math, he was here and now he's at 97.

Right. Like it was just really, really neat to see that. That was I don't know how they did with the diet, but I know that

they were in touch with Rob at level two, and they had done a really good job getting on the system every day.

They were very committed and they got the benefits from it, and she did as well. So it wasn't just him with his cognitive function, but I think both of them were healthier after just a few months of consistent use.

Well, I think there's two points there. Number one, in that case of her taking care of him illustrates my point, which is it's always very important to take care of yourself.

But I think it brings up another feature of I'll call it the simplicity and convenience. So I designed the book two as a do it yourself at home platform.

You don't have to be super technical. It takes 15 to 30 minutes to set up. But the whole thing about having it at home as an extension to your workout equipment, where you can get on and use it every day, and it's price to be, you know, competitive with high grade exercise equipment, that convenience that makes it possible.

And easy for people to take care of themselves. Like, you know, for example, we had 20 guests in the house yesterday. One of them says, hey, I've got a problem.

I said, here you go. Here's the tool you need. And the fact that I was able to guide my family and tell them what to do, or how to do what they needed to do, put me in a position of being helpful not only for myself and people, but also the people that drifted through my world.

So one of the other things that happens to many, if not most of our customers is they end up becoming a go to resource for anybody in their world who needs help simply because it's so easy.

Hey, I mean, you know, like I've had people having strokes and I didn't, you know, I could say, here, let's do this. And I was able to help them without even knowing I was intervening with something that was a, you know, a challenge.

And I didn't want to cause stress by letting them know what was going on. But it was, you know, they were in a remote location, etc.. So the, you know, the personal power that comes with having your own tools where you can help people that need it when you see they need it, is is a blessing beyond words, you know?

And that's I mean, I can't tell you how many young people have come through my world because they hit their head playing football and being able to, you know, kind of do things that help them recover without them even really knowing they were injured in the first place.

You know, let's me feel very good about what I chose to do with my at this phase in my career. And, you know, just kind of like, yeah, I help that person.

They don't even need to know what I did. But I did like, for example, two of our guests yesterday, they were sitting at a stoplight and a tow truck plowed into them at 40 miles an hour.

Collapsed his lunch. And, you know, they were, I mean, near death. And so, they're they buy eggs from us. And so when they came by, I trained their son, who was also here yesterday.

Long story short, they, she was 77 as of yesterday. So we started working with them when they were. She was 75 and he was 68. The point was, okay, here's a couple of neighbors that were in trouble.

Okay. Within the day. And certainly within two years. Like, for example, we poured 1400 square feet of concrete in a day. They went from being unable to walk and to quote Eric, circling the drain to being able to come over to our house and spend the full ten hour day finishing concrete.

Right. So that's exactly this, the this reimagined sort of aging rate, where you are engaged with your neighbors, engaged and, and pouring concrete and whatever it is that you're excited about building and doing that you can still

show up and do those things versus sitting in a home in front of a TV, kind of wasting away, feeling like there isn't much to look forward to.

It's so exciting. Before before I let you go, I do want to dive into a little bit more of the mechanism here. So we've talked about cerebral blood flow, certainly perfusion getting more oxygen and more blood flow to those tissues, getting more trash out.

The mitochondria play a really big role here too. So mitochondria are the energy powerhouses of our cells. They help turn whether it's glucose or fat or whatever the fuel source is into ATP or that that almost gasoline that drives our cells and allows it to do the work that needs to be done.

So tell me what the effect of liver two is on mitochondria. Okay. So every cell has mitochondria and mitochondria have two well-recognized energy production modes which boil down to with oxygen and without oxygen.

Senescence, Hormesis, and Resilience

So if they're running with out oxygen, if I use an engine metaphor, they get two miles per gallon or two atps per glucose. Okay, so if you're driving a car that gets two miles per gallon, you're not going to go very far in a pack on a tank of gas, and you're not going to go very fast.

If a cell is able to manufacture energy with oxygen, it gets 38 atps per glucose. And let's pretend I got 38 fingers, so 2 to 38. So when a cell is able to run at 38 miles per gallon, its energy status is 19 times higher.

Okay. So that's the net of having oxygen. So like for example, in this case if somebody hits their head or they've got a damage or some sort of injury that interferes with oxygen delivery, and what happens is cells in that area end up being trapped at the low energy level, using only as much resources they can get.

So like when you take a look at aging and all that, in the process of loss of quality of life systemically from mitochondrial energy production is as more your body loses the ability to deliver oxygen, your ability to produce energy falls.

Your ability for your immune system to fight off infections falls. Like, for example, when you get the cold or the flu, your systemic energy budget drops to less than half of normal.

If you train on live O2, your systemic energy will go back to not only normal, but about 30% above normal. Because you've restored the oxygen that the lung injury interferes with.

So that's one mechanism. The second mechanism is that as we get older, the same mechanism of energy. Basically like when you get an injury or you have a stress event, what happens like first like you go through your divorce, you ever notice how people get sick after they have a big stress event at t plus six months?

Well, this is like, kids in school. Well, maybe not kids, but, like law students and medical students I've seen, they go on vacation and after exams, you know, they're not getting sick through exams, but the second they're on vacation, they get sick.

Read that. Cortisol drops. Yeah, the cortisol drops. And then your body goes into retirement. Basically what happens is that whenever you have a stress event and you know, first thing your body does under stress as you stop breathing, because in response to a start, your body start, you stop breathing because you want to silence the airway so you can hear what's threatening you.

If you're sitting at your office and you're being threatened. So you know the body protects itself or, you know, by suppressing arrest, suppression of respiratory reflex, that's one element.

But the second element is that as we get a stress event, we can stay in this low respiratory state so that the oxygen in the bloodstream actually falls low enough to call, cause what I call tourniquet injury.

Okay. Tourniquet an injury is if you put a tourniquet on an arm or a limb for 90 minutes, the limb will use up all the oxygen in the the blood. And then the capillaries that are in that structure will actually crash.

And then the cells that are in the capillaries will blow up so that the capillary capillaries basically the inner skin on the vascular system. So when the cells in a capillary blow it up because they've been in they oxygen depleted state of state for a long period of time, the capillary will actually shrink.

And when that happens the cells that are fed by this capillary more or less have to survive on whatever sugar water as in low oxygen, can sneak through this little hole.

The principle here is this is sort of a progressive effect where as we get older, the aggregation, it's the mechanism by which the aggregation of stress that we experience interferes with our metabolism and shuts down our body's ability to produce energy.

One way to describe it would be the creeping crud. You know, just people that are under a lot of stress, their health goes downhill. That's because this mechanism of inflammation is a consequence of stress.

Okay. So like, oh, you know, somebody's wife dies six months later, they end up very sick and die. That's because it takes about six months for this mechanism.

So anyway, the point would be in terms of liver to what's happening is you're setting up the body into the natural circumstance where this injury about the tourniquet that closes down the vascular system as a function of stress is reversed.

So like when we train people on the VO2, we will usually see this effect within the first 15 minutes. You know, we'll see a lot of that reverse because you can actually watch the vascular system open up and their metabolism kick back on or turn back on as the capillaries open up.

So like, have you have you ever trained somebody and smelled, toxins come out of their breath. Yes. Yeah. 8 or 9. Well actually it was like session 12 is when 1213, 14.

So it was after people had been doing it for a couple of weeks, you know, coming in three times a week or whatever it was. And then it would be around session 12 that there were a couple times we had a woman who, she smelled her mom's perfume coming out of her skin or other.

I don't know exactly where it was, but it was in the room. She was like, my mom's been dead for years, but that is so bizarre that her, like, I don't know if she had absorbed her mother's perfume over years.

And then all of a sudden it was coming out. It was a really, really odd, scenario. And I don't really I didn't have a great explanation for it. Maybe you do.

Well, this is part of the like, the turn get injury. So what happens is we get older, you know, and our vascular system ends up with this progressive closed down effect.

Okay. When you smell those things coming out here's what happens is you've increased the metabolism enough. And the heart rate that the vascular system is starting to open.

And like if you get a fatty compartment in the skin or something like that, that doesn't have really good air or blood flow. So once you get the blood in the capillaries open up like to this.

Let's just assume that on my on my hand right here, I had some mom's perfume. Okay. Once the capillaries to that tissue open up, the blood will wash through.

And any volatile liquid volatile fluids that are substances that are there will get picked up by the blood. And they'll be carried back through the arteries to and through the lungs.

If they're volatile, like an odorant, like a perfume that volatile will diffuse into the air in the lungs and you'll exhale it. So when you smell stuff coming out of people's breath, you know that wherever that came from has been closed off so that those materials couldn't wash out for a very long, you know, for as long as it was until they were exposed to that substance.

So like, for example, a lot of times will people smell people blowing off, insect repellent or perfume or anything that they haven't used for 20 years, which lets us say they're like, well, whatever opened up hasn't had good blood flow for 20 years.

So, I mean, you can see this in real time. And if somebody is more aggressive about training, you know, you can often see that with a minute that usually happens between minute eight or minute 12 of somebody that's doing a more aggressive workout.

I know you're working with patients and you're easing them through and it but once you start to really see this perfusion and the tissue opening up, stuff that's been hiding in there for a long time can come out.

And if you're in front of them, you can smell it. We even have doctors when they're training, people that have been on chemotherapy. The doctor will wear a mask because they don't want to inhale the garbage that's coming out of the breath of the person they're training.

Fair enough. Yeah. There was another guy where he smelled paint like really noxious fumes. Paint smells, paint chemicals. And then, yeah, he was like, oh, I painted my house by myself, you know?

But that was years ago. That was nothing recent. And that that story you hear over and over again is like, no, that smell that couldn't have been recent.

I don't know, you know, and we're all kind of struggling to explain it. But this is a great. Yeah, that really fits well to loop back to the Alzheimer's to, you know, create a tangible I mean, there's some pretty good data out there that says Alzheimer's and many other disease factors are a result of the body accumulating toxins.

So, I mean, you've done this enough times to offer personal confirmation that, yes, you we personally do see things. But the same effect I'm talking about also happens with other toxins, metals, etc..

So like for example, the lungs or how the body will vent, volatile toxins that like gas. Yeah. Things that can be aerosolized, right. Aerosolized, but also the liver and the other kidneys.

So the point is by opening things up and flushing them out, that gives the puts a body in a state where it can get rid of stuff that can have been caring for a lot of years, which is why I talk about live though too.

And this exercise process, especially the adaptive contrast as being such a potentiate or an amplifying factor for driving whatever process to detox. Which is why I was talking about our other protocol, which is, you know, if you combine any detoxification agent or any other therapy, Levo two will almost always, if not always help it work better.

So one other piece of this puzzle is senescent cells. And how what's happening? Part of what's happening is, that you're putting a little bit of stress on the system now. It's a, it's a good amount of stress.

So this is called often referred to as the Hermetic effect. So this horn so is the concept that if you put some stress on the system, you actually get more adaptability and a stronger, healthier system.

Now very obviously with oxygen, just as with food, you know, if you don't get any of it, at some point you die, right? And we're not going there. But what we want is that kind of first initial stress on the system so that your body adapts more.

And part of that adaptation is the triggering autophagy. So can you talk a little bit about kind of the culling of those

cells that aren't optimally working and how that works?

Well, let me go. Let me go up to senescence for one thing. Okay. So mostly a senescence is basically to be asleep, right? Or not not functioning at an optimal level.

And so a cell can be in a senescent state for multiple reasons. Number one, it's never called on the challenge, which is never experienced a demand which would be atrophy in a muscle.

The other is that cell can basically be in a nutrient or oxygen deprived state.

Closing Thoughts and Where to Learn More

And it's senescent because it doesn't have the resources it needs to do what it's supposed to do. So like I'll offer a basic benchmark when we work out, you know, people workout with the VO2 and I'm training somebody who's reasonably an athlete.

I will watch their power during sprint. Okay. And so like a muscle soreness or something like that, like the muscles will be fractionally able to produce energy because they're overtrained or something like that.

And so the muscles that are not supplied good oxygen because of inflammation in the capillaries and the muscle beds will not be able to do work. So by the time they've done their third or fourth sprint, I'll often observe that their horsepower has gone up 30%.

Okay, so you could argue that those muscles are some that are those cells are senescent because their supply chain is compromised. Okay. And that's just a matter of opening things up.

But then that then the other side is, you know, you have a cell, it's basically asleep or, you know, fractionally performing because it's not experienced to demand.

And so part of nature is, you know, it's just like with the high intensity interval training, you know, the body is designed to adapt. And if you train something hard and the recovery from training basically wakes up the system.

And as part of that flow, get the heartbeat going, get, you know, get things stirred up and that stir up and make it happen and make it be is part of the life process.

And so, you know, back to the I call it very basic notion. Life is for living. And part of that is to, you know, well, just in the live model, go out and have fun, but also to, you know, aggressively exercise.

You remember for years people talked about go do your aerobics, go out and run five miles. And then the guys that came along, they started talking about high intensity interval training and what they saw is like, for example, high intensity interval training by creating the pattern of massive exertion and lactic acid from exerting and an anaerobic level basically hitting the pituitary.

And then when they did that, they started seeing many, many anti-aging effects as a result of the human growth hormone release that was triggered by the lactic acid cycle, which is, you know, another dimension of the VO2 is an anti-aging tool.

But when you get into this whole high intensity thing by activating the system and triggering that challenge, you're teaching the body, you're you're compelling the body to recover.

And the other thing that happens in the in the mitochondria, which is a derivative of, some other language or some other technology, is basically when you breathe and you challenge the body and you use it, use the tissue in a maximum way, you're going to kill off part of the mitochondria, and the strong ones are going to survive and the strong ones will reproduce.

And this is a technique developed by what they call it the Iceman. Or he popularized it where he'll do a breathing technique that basically if a mitochondria is weak, it will die.

And over a period of some number of years, he's got to the point where he can swim 100 yards under water, ice water. Wim Hof yeah, Wim Hof right. But that's the whole principle, which is, you know, challenge is a good thing.

And if you're able to do that, then that will make your body stronger, which is the I'll call it one of the primary principles of training. But to this audience, it really doesn't matter how old you are, the more you can do to challenge yourself and keep, the more your body's going to adapt and the higher quality of life you're going to have for the rest of your life, and the more resilience as well, right?

If you do get sick, or if you do, you know, at this point, as people age, they there are falls and there are things that come up, there are things that happen.

And so the more resilience you're going to have to recover from those faster and easier. It has been so wonderful having you share all of this, these wisdom, this wisdom and all of these insights with us.

I want our listeners to know where they can find out more about Levo to leave letter O, digit 2.com level 2.com. Lovat is in the process of expanding our services.

We have another site for watches for customers where people can go to look up our, I'll call it state of the art protocol library that includes programs to deal with neuropathology.

We have customers that have used Levo to with Alzheimer's, Parkinson's, ALS, various other neurological disease. We've got protocols under development for top level athletes, and any number.

So we're publishing a protocol about every 60 days. And what we find is that most people that do these things end up solving or certainly improving their health issues.

And so our our mission is basically to make it so you never need to go to the doctor again with well, except for Heather, you know, no, my mission is as well to, to not only reverse Alzheimer's, but to prevent it from happening in the next generation.

And I think that I sincerely believe that contrast oxygen therapy is a huge part of that and very underutilized. You know, I feel honored to be able to be introducing our, our summit guests to live out to, in contrast to oxygen therapy, because I think a lot of them have just never heard of it.

And being in the biohacking neuro hacking space through neuro hacker and a couple other things that I'm involved in, I'm always shocked that more people are not aware of Levo two and these concepts around, contrast oxygen because it's, it's common sense but uncommon practice.

And again, very short. You know, you don't have to put that much into it. It's a relatively affordable, especially compared to a lot of the other things on the market.

And very little time. You do have to you have to show up consistently and put in the work, put in the effort. But the rewards are great and so Mark, thank you for making this available.

Thank you for inventing it. Thank you for your time explaining it. It's been an absolute pleasure. Thank you. Heather. Of course.