Dr. Mitch Ghen is the OG of IV Therapy — The Truth No One Else Will Tell You! Ep. 108 Transcript

(Transcripts are generated by AI and may contain errors)

Introduction to IV Nutrition and Methylene Blue

Methylene blue, I typically never will give more than five milligrams. Here is the issue with first thing is it will turn the urine quite blue. You know, there was a study that recently came out there being toxins, microplastics inside of these IV bags.

How do we prevent those micro plastics from going inside our patient? Okay, so we have two issues. We have the true OG behind IV therapy, Dr. Mitch Gen.

Joining us is Dr. Mitch Gen, DO, PhD researcher, international lecturer, and one of the most respected voices in IV nutrition and stem cell integrative medicine.

With four textbooks and decades of clinical work, he's a true pioneer. Of the 37 trillion cells, we have trillions faults or problems. The body typically 99.9% of the time fixes it.

But we 1 to 10 per cell double-stranded attacks. Any one of them could turn into a cancer. Are you able to do a precision vitamin IV therapy based off epigenetic testing only?

Looking at the epigenome itself, there is absolutely no way you can tell what's happening and what IV you're going to give that person. What is the difference between a physician really utilizing IV nutrition versus people go in and they're almost like picking off a smoothie menu type of deal.

I hate that. Welcome to another episode of a healthy point of view podcast. I'm your host Sam Tahara. And as usual, we're bringing experts from all over the world to talk about health, wellness, beauty and mindset.

Today's guest, he's a local here in South Florida. But you know, a lot of you guys always ask me, Sam, how did you and all of your guru doctors learn about IV therapy?

Well, there's people out there that are the true gurus behind IV Therapy. These are the OGs in the industry where everybody really started learning. The ones that are willing to take the risk.

Today, we have the true OG behind IV therapy. You've probably seen him on so many different stages around the world. He is the guy who's not just an expert, he creates experts in IV nutrition.

Well, if I didn't know that you were Sam, but I thought you're my mother. Thank you. Very. Mom's are always nice. I get that. Yeah. You know, everything I said about you in that introduction, it's true to my heart and it true too, who you are as a person in this industry and anyone who is in the IV therapy industry, That's a problem.

That means they really don't understand what IV nutrition is as of yet.

Dr. Mitch Ginnu2019s Background and Medical Philosophy

After this podcast, they will understand truly what you do in the world of IV nutritional therapy, especially being an author of many of the textbooks that are out there, right?

So Dr. Ginn, I wanna start off with people, forget about all this doctor and IV therapy stuff. I want people to get to know who you are and who was that five-year-old Mitch Gann and what was going through that 5-Year-Old mindset to where you're at today?

You're talking about the five-year-old probably thinking about Sally my next-door neighbor to be quite But you know things change as you get older I think when I was up to 11 or 12 I can remember the best gift I ever got for the holidays was actually a chemistry set And they called me like the mad crazy chemist.

I would make this and that and everything under the sun. And I knew at that point, something about this industry was fun. Even had gotten from a neighbor who was a pharmacist, some powder that helped you fall asleep, you know, things that they used back then, not ether, but one of the others.

And I decided to actually anesthetize one of my friends. This is 12 years old, mind you, and I knocked him clean out. Of course, I was a little worried because I wasn't no anesthesiologist, but then he came back and said, I like this, this is probably where I'll go. And as time went on, things changed.

I went through schooling, basically started off with a bachelor's of business administration. Thought I was going to props go to law school and I decided me not for me.

What was really for? Me was getting into medicine, but I at that time I Was phys ed director of the largest Jewish Y in Philadelphia and it was a late one night about 11 o'clock.

I go upstairs and there's a Wonderful, and i hope she's still around and doing well and Secretary and I was like totally down in the mouth. I closed up the place.

He said she said Mitchell. What's bothering you? I said, I really hate what I'm doing She said if you could have done anything now mind you at that point.

Um already 26 years old She's said could if he could done. Anything at. That point What would you do? She said, well, why don't you? I said because, look, I had a kid when I was in college, early college.

My college grades were very fair. I'd have to go back, and have get my science courses. And this woman said something to me, Sam, but I think about it at least once a week.

Something to, the people watching this, it's important to hear. She looked at me and said Mitchell, do you ever want to look back when you're 60 and say you are sorry?

I didn't say a word. I couldn't breathe. Thank God I walked away with a 4.0 average of my sciences. They saw I was a different type of person. There I am.

Went to medical school and that's how it all began. Amazing. What was your upbringing? What part of the states? Northeast Philadelphia. I'm from Philadelphia all through college and also through medical From there, I migrated to Florida for a couple reasons.

My parents were going back and forth, and they had a place down here, when I enjoyed coming. And the other thing was great about medicine, as you know, from being in the healthcare profession yourself, that you can go anywhere.

Medicine's universal, at least in states. I said, mm, thats what I want to do. Got myself together, off I went to florida. Amazing, man. Philadelphia, Will Smith is from Philadelphia.

Okay, so the business degree, and one thing that I've always noticed with you, Dr. Mitch, is that you've It's one of the things that it's talked about in the industry quite a bit in medical industry.

Doctors are great doctors but not great business men and women. But you have that business degree and I've always noticed you always have the business mindset as well too.

Not just to capitalize financially but also making sure that your patients have best experience possible. Yeah, and there's a couple things that go along with that, Sam.

You know, most people that got to medical school, they're young and they really didn't have the capability of sort of enjoying life as a young person, you know going out enough.

They were shadowed, were in the house, studying for tests. So I had the advantage already being a little bit older. The second thing was, I know that doctors have a difficult time, as you know, you work with so many, talking and discussing economic situations.

And they're very poor businessmen as we all know. I do a lot of consulting, i teach a lots of doctors, and the one thing I always talk about is It's okay to make money doc it's alright you don't have to be oh my gosh you know and a lot of doctors are that way unfortunately they feel uncomfortable but the way i look at it sam is this i do a good job i'd do my best i believe that i knew the kind of job that people are looking for.

I deserve to get paid for what I do, like anything else. And I myself personally have been a cash practitioner probably for more than 21 years now. So for me, I go to sleep at night, look back over the night.

I say to myself, Mitchell, did you do a good job? And look up and I said, God, please just give me the gift of understanding knowing what to do and make sure I'd do good a job tomorrow.

And that's me, and I feel I get paid for what I do, it's fair. I agree. And I'll never forget one of the classes that you were teaching that I participated in.

Until this day I actually take what you're teaching in that class and coach a lot of our team members with it. And you put a lot of emphasis about how it's important as a medical provider to connect with your patient and make them feel connected and comfortable.

And, you even literally took a chair next to someone and you sat next them and showed them, like, don't be scared to touch your patients. Put your hand on them.

Look at them in the eyes and tell them that we're working on this. We're going to get Through it, you know in these patients, a lot of them especially the ones that you you work with are Very ill right and they're confused.

They don't know, they've seen multiple doctors by the time they get to you So, seeing those things and another thing I remember you saying as well too was when as a physician you see so many patients and we have a Lot of physicians that tune into this podcast and this is why I want to bring it up is You even mentioned that when you're taking your notes, your patient notes.

Don't just use it for the medical stuff. If they're telling you, hey, I'm coming in and I've gone on a vacation with my kids or going to Disney World, jot that down inside of the patient chart as well too so when they come back, you remember that and you can ask them about it.

But these are the little things that I feel like most doctors don't even you to recognize or do any of this. There's a whole psychological component with what you're doing.

I think there's no question, medicine is a good portion, a psychological component to it. Look, the day of the EMR has made a mess of that doctor looking at the patient talking, they're looking the screen.

I always took my notes, Sam. Now I use something that literally transcribes, listens to the conversation, AI, I get permission from the And I can spend my time looking at the patient.

I think in the same conference that I talked to you about, I also taught that in a first 14 seconds of meeting someone, that patient already knows if they like you or not.

If you're on a scribe or you on this or your doing that, it doesn't show very good. you know, manners or conduct to that patient. You get up, shake their hands, say hello, and you're right.

I always thought, I still do, that you should treat your patient as if it was your mother. That you be nice to them. They're having a problem, they came to you.

And they need your help. Now I see, as you said, the very, very sick. A good portion of my patients are referred from other physicians throughout the country.

These people are really looking to me as the last ditch effort that they have. I think it's worth the time. It's work the effort You don't have to sympathize, but you do need some empathy in this space You need to take your time Some people need a little more some people to know that you're there some People need you know to let them cry and let him go through this and I always ask similar questions one of the first questions I asked someone after I know their name and so forth is tell me if I Mitch can do anything for you by the way I don' do this doctor stuff.

I'm done I don't care. I'll say if Mitch could do anything for you.

From Biochemistry to IV Therapy

What would that be and So I let them tell me I'd be quiet and I I left them Tell me well if if you can help me this get rid of this or do this I said, okay Well, you know what?

God's given me a great gift and God will be with us. And yes, I think it's okay for me to say that and I don't care if it is not, they don' have to use me.

But I believe that there's something extra and greater than the physician themselves and with that help of that extra terrestrial being, whatever you want to call it, care, plus what you know and what study and if you always keep studying, then you're doing really the best.

So like I said, when I go to bed at night, always think back of the day, What could I have done more? What can I've done less? And sometimes I'll even call a patient back and say, but like I said, you need to treat human beings like human banks.

That's what you're in the world. I'd been doing this over what now 44 or 45 years now. So for me, it's a pleasure to do it. Do it because I believe I.

Have a purpose in life to be there for these folks. Amen on that. And is that I know how you feel, and I how I feel about bringing faith and God into the picture, especially dealing with patients.

And when I worked at the fire department for 12 years out on the road as a firefighter paramedic, it was something that I would always, I wouldn't even pray over patients if they allowed me to.

Good for you. How important is that, including faith in God, into this realm? Well, I'm cautious. When I teach, my physicians, there are two subjects you never should really broach with a patient unless you're on the same side.

That is politics and religion. If you say something to somebody and they're totally in opposition to what you said in those two areas, all they hear after that is blah, blah blah.

They don't hear you. But it's very rare when someone is really sick that they don't want someone to bring that in. Look, everybody used to, you probably remember when you were started, had the triangle of mind, body, spirit.

It's a very nice triangle. but do you practice it? And maybe you do know, I'm not sure if you know. I was in medicine for several years and I knew I missing a component of this.

And I in South Carolina at the time I had three practices there and said to one of the priests, you I Jewish, said, read certain things and it says just do it.

Why do I have to do something it said? And he said listen my son you know there are things you have to do

because it says so so i said okay i'll ask the minister i asked the ministry pretty much the same thing and then i ask a very religious rabbi one of the kabad rabbis and they told me basically same three of them i should you what.

yeah i'm not buying it because i have a logic system and i went back and did three years in a rabbinical seminar seminary while i was still a physician oh wow so because I needed to find my own space in this because, I realize what you think is what, you get what.

You see is, what? You create. and you know very well, and from being in this space so long, a patient with the worst disease imaginable, whatever you want to call it, that knows they're going to do good, has a great attitude, says, I'm going and they have it great, they do much better every single time.

So, yes, that's how this all crawled into space with me, and I realized that it was something, if I wanted to purvey the best medicine and be the better mentor and guide to these patients that come to me that are so ill, I need to first find myself and feel comfortable in this space.

And I'm not uncomfortable talking to a patient about pretty much anything. I am not, but I've been doing it too long to be uncomfortable. But at the same time, i want that patient to say they're comfortable when they leave too, Yeah, I think I'm gonna be okay.

Yeah. And that's the best thing. That's powerful. In what you just mentioned about the patient having that positive mindset and how that can feed to even a more powerful outcome with their health.

Dr. Joe Dispenza speaks about it quite often, about how powerful the mind is if you have the mindset in the right place. So, Dr. Gannon, IV nutrients therapy and regenerative medicine.

No one goes to college medical school and says, oh, I'm gonna be the expert in IV nutrition. How the heck did he even get there? Oh, I could tell you the good story.

You want to hear the truth? I want it here. Um, 45 plus years ago, was the chief intern of a hospital in Florida. That's no longer there. I think it's been torn down and made into some sort of nursing home.

Uh, chief in turn at the time we were 11 in my team. So I noticed, um, that there were certain individuals. getting out of the hospital much faster than others with the same exact disorder.

So I started looking at who the internal medicine group, family medicine, group that were handling these people. Makes sense because here I am. I just want to know what's going on.

And so it came, and so often, so statistically prominent in my head, that they were using, the group that was getting the people out of the hospital much faster, they we're using back then, 50,000 milligrams of vitamin C intravenously in a hospital.

Don't think. It was true. So I said, wow, that's certainly different than the way I was trained originally, because in medical school, and pretty much the first week or two when you're doing biochemistry and physiology, one of the either, they would get up there and say, you know, all this vitamin C, it doesn't do any good, only a little bit you need, so we're gonna do an experiment, go urinate, call that one, take 500 vitamin c, check again and you see a lot of it's in the urine.

Yeah, that that's far fetched from what it really does, but that something we can talk about later if you choose. But then I saw this happening. I said something I didn't learn in medical school.

And that what started my journey so long ago into this. You know, and then of course, the more you study it, I started to say when you realize there's something missing from your armamentarium and taking care of a patient.

Look, i was a child basically at the time just coming into this and I wanted to do the best I could from my patients and i said hmm there are two areas and you know I teach this that need to always be looked at.

The patient's individual biochemistry and certainly their physiology. If you don't know bio chemistry or physiology, You will never be good in the integrative medical space.

I don't care what degrees that that person has, they just can't. You have to know it so well. So when people say to me, oh, Mitch, what should I go read?

I say, when you're on the toilet, read biochemistry and read your physiology over again. If you understand that, you can think out of the box. You know, when you start looking at, and it's not important for this podcast, you look at how do we get the medicines we have, it is not a great story.

And a lot of the stuff we had, especially today when we see what's happened with everything in the past three, four years, It's downright in some respects disgusting.

So I have a real problem with it. Then I realized that it was nice if we wanted to use if-then medicine, if then medicine. If you have something, we're going to give you something for it, but they were telling us from the departments, from medical schools, what the if was.

Like for example, if you have high cholesterol, you should give a medicine. But really, cholesterol is put there for a reason, and that's a whole conversation itself.

And then if have this, then you do that. With total disregard of whenever to take a medication off, doctors never train to remove a and total disregard for the most important part which is your biochemistry you know the glucose this your cramp cycle the electron transport system without knowing that like the back your hand you have no idea what these drugs are doing and there are things for most part the body will correct on its own if it's given sort of the.

cement and the bricks. If you don't have it, then there's no way to repair the body or the cells. And so IV medicine's an important part. It's a hundred percent absorbed with a minor deviation, which is extremely rare if they have a nutrient transport system problem.

You wouldn't know it anyway. But for the most part, you have 100% absorption of most of the water soluble vitamins, et cetera. And whereas in the probably the best day of your life, you're maybe absorbing 30, 40% of an oral type of vitamin or mineral.

And by the time you get to a birth control and water pills and you to blood thinners and proton pump inhibitors, and it goes on and on, maybe getting three or 5%, let alone the fact that most women and men by time they're 50 have hypochlorohydria, exact opposite of this hyperchlorohydride that everyone seems to be put on a proton pump inhibitor or the old h2 blockers for and There's things that we should know about what we do you can't you?

Can't get the nutrients when you're on that it's impossible you need acid in your stomach So very interesting what you brought up about understanding, as a medical provider, understanding biochemistry, right?

I remember Dr. Willix, before he would actually get on stage at the AMMG or A4M, I remembered the first time I went to go watch him, there was like a lot of people in the room, probably a thousand people on the And he said, Sam, watch when I start how at least about 15 to 20 physicians are gonna get out of their seat and walk out.

So what the heck is Dr. Williams talking about? The first thing he started talking was the Crip Cycle. A lot of these doctors that have already gone through school, they just don't want to listen to it.

And me personally, I believe that the best doctors, start off with the metabolic pathways. You know, you see the crib cycle and all of the different gear wheels on there.

But when you go into that whole biochemistry, the big chart, which one I'm talking about. If you're a physician who understands that, man, Oh, no, it's not.

Your opinion is 100% correct. Um, when you look at the Krebs cycle, now there isn't a cell in the human body with

the exception of the red blood cell because the Red Blood cell has no mitochondria.

They're the only group that doesn't. So in with all the other cells, you're going to put the sugar eventually through, hopefully with, uh, glycolysis, which makes a little bit of ATP and we'll send it through to make 36 ATP net.

in the best of situations. It goes through Oxfas and electron transport eventually, for the folks listening that understand biochemistry. The Krebs cycle, if you ever break it down, and I pretty much, whenever I teach IV, I always will bring a slide, the Kreb cycle.

I said I want you to see, If anyone ever says, oh, what's a vitamin, What's this? All you need to do is put up the Kreb cycle because the kreb Cycle has no medication in it to make it go.

it starts with a molecule of glucose, And it needs manganese magnesium central fatty acids you know it got calcium magnesium it goes on and on. And i can show the different i show different areas in that cycle where these nutrients and substrates are needed so without it.

You're not going anywhere and you will not make the energy now. Pretty much everyone knows today and probably most of the people watching the podcast, and if you don't, you should, that pretty much everything, if it doesn't start off as, it will become a mitochondrial disorder.

Right end of discussion. So it will become that eventually so if you go to the mitochondria, what makes what is the Mitochondria? Okay, so it's these powerhouses the batteries of the cell for the lay people watching.

It's they're anywhere from Several hundred to thousands, you know the more active a part of a body is like the heart the kidneys the liver they require more mitochondria and the end result is our exchange.

And the exchange is the triphosphate bond known as adenosine tri phosphate. If you don't make enough, several things will happen. A, the person will become fatigued, etc.

To the N result, which is where I teach currently, if there's not enough made, that body will apoptose that cell, will exit out and kill it, or it will allow it to hijack and begin using the warburg effects, it's every single cancer cell does, and that is using lack of oxygen to produce lactate, which eventually, if you remove a proton, you'll get lactic acid.

But that's so important, but here, using these nutrients, we're capable and able to maintaining a lot of that long before it becomes a problem. So don't know the Krebs cycle.

You don' know really how to treat that patient. And you know, most of those nutrients, you'll see it there. What I always have found very strange is a lot of physicians or nurse practitioners or PAs in the allopathic conventional medicine, when you start telling them about vitamins, minerals, amino acids and the importance of it, They totally just trash it.

Oh, none of that stuff works. And I just tried thinking to myself. I remember when I first got into the IV therapy space, I started thinking of myself, you know, looking at the protocols that you're teaching us with, and I'm just like.

These are a lot of the stuff we use at the fire department for emergency medicine. Sodium bicarbonate, magnesium, we used potassium, calcium, you know, like we're saving people's lives, utilizing.

Nutrients sure even though people are looking at it people in emergency medicine said they're looking that as a drug Right because it's a sterile form and it can be injected but these are nutrients that your body runs off of You know, I correct a cardiac dysrhythmia with nutrients, of course So what is it that you can say to the people that are listening?

right that Basically downplay the importance of nutrients and Oh, it's very simple. First of all, ignorance is ignorance. You have to realize first of where they're coming from.

Years ago, and this is true, many doctors in the community thought, hey, Michigan, you're crazy. I was giving, let's say, for example, bacteria that people are swallowing, probiotics.

Who doesn't give them? And of course the gastroenterology association in the last couple years focused on the microbiome, so all of a sudden it changed.

Many, many of these doctors ended up my patients over the years. Things have changed now. Why did they change that they changed because it was a monetary issue?

I don't know. Maybe they just realized what they were doing didn't work and you know doing podcast and having Talking to a lot of doctors. You know, if you ask them, what are the things that you can cure?

That's my first question. Well, okay. Let's have an honest intellectual discussion. I have no problem Tell me what you create what your cure. That start with okay, let's start metastatic cancer.

Oh Oh no no that's only part of it okay um what about severe coronary artery disease what will put stent and i said yes keep going well though eventually fail.

What about heart failure same thing we go right down the line autoimmune disease eventually you know it's renal dysfunction and failure and every disease simply has its final common pathway so i say look.

You say nothing to the two or you believe that the nutrients don't have a place well let me show you first the place and that's when i open the Krebs cycle so let we show that all that you learned in your second day or second week neither medical school and ppa school whatever you want to dental school that that was there.

But it's pushed aside because your education is being sort of driven by another force. And you know what I'm saying. So you're being moved to that if-then.

The Rockefellers. Right. You're moving to an if then conversation. Look, that Flexner report that the Rockefeller's had Fort had done, got rid of pretty much the natural medicine in this country, homeopathy, everything, was pretty wiped out.

Not only was it wiped, but they prosecuted doctors back then. It's a pretty good thing when you want to have a monopoly. Sorry, that's what happened. You know, and then it's not easy when you're when your when, you go to a school and you spend a fortune of money and every day you sit for eight hours and You hear this is the disease.

Here's the pathophysiology. here's anatomy. And here are the drugs and here is a surgery. That's all you know. And you become sort of egocentric to it and then comes along someone who says by the way do you know that vitamin c could have or did you no that be complex or magnesium it's like.

There's no way the truth is. I have, and of course across my career, have seen so many goodbye disorders, because that's basically what I see mainly. I get the most complicated cases where everyone's given up and waves their hand.

It's just like someone comes in with an acre pain. You're getting older. What do you want? You come in with a lack of energy. Uh, you got older. What do you want?

Well, that's not an answer. I always say there's no such thing as a normal symptom.

Precision IVs, Testing, and Clinical Assessment

There isn't, there is something going on. And the point is, can we do something about it? In most, the majority of the cases we can, if we'll guide ourselves and use all the things that are available to ourselves.

An IV, of course, nutritional repletion is a major component. It's a measure component of mine because I know I

can get to where I need to go much quicker when it comes to nutrition.

Nutrition is one thing, Sam. Another is energy balance, you know, that you have like whether it's meditation like Joe Dispenza does, which is excellent that mentioned it.

I think he does a great job. If you're looking at, for example, hormone balance. Hormone balance is two cells need talk to each other. That's how intercellular communication typically occurs and there's something about psychosocial which we call mind-body.

There's no question the person who thinks they're bad or sick, they are sick. We alluded to that earlier in our conversation. All those five areas and some detox are all mutually inclusive.

You can have perfect nutrition but you tell everyone you don't feel good. You get a perfect mind body, perfect nutrition, but your hormones are poor. You still feel lousy because you have no intercellular communication.

So all these things must be looked at. They need to be examined, they need be repleted as you start to fix it. And IV sits right in that area of several of those areas where you can help out.

and actually enhance the therapies that you're doing, no question. It's my firm belief, and of course, look, I'm in the space. I started the Space, that if you don't use IV nutrition, you might still get to where you wanna go with oral, maybe, but a lot less, lot longer, But you are very much making a huge mistake by not addressing intravenous nutritional repletion, because it is a center of much of the things we just mentioned.

Right. Doc, right now you see a lot of IV clinics popping up. A lot retail IV clinic where they're not really doing what you're doing and treating very sick patients.

They're more doing it for wellness purposes. People come in, get the Myers cocktail. What is the difference between a physician really utilizing IV nutrition as a clinical treatment versus what you see all over the place right now where it's more of people go in and they're almost like picking off a smoothie menu type of deal?

Right, I hate that. I think you know that already. That's why I'm asking you. You know what's going to come out of my mouth. Well, it's probably atrocious medicine, in my opinion.

And I always use the example. Let me ask you, would you go to, because you thought you had a lump, you'd go into the pharmacy and pick out some chemotherapy.

Would you do that for cardiac medicines? Would do you that anything else? It's so ridiculous, nonsensical. It really is sad to hear that and to me it's surely it is not in a space that I would ever want to occupy.

There is a right way and a wrong way. Look, no one has to be or very few can be in the space. I take very complicated cases. It's not for everyone. Not everyone has either the capability, the understanding or want be that space, I don't blame them.

And then the other end is I you just walk in and pick out something you hardly have even a practitioner there. Sometimes you do some places as you know, don't it's a serious thing.

I don' think an IV should ever be given to anyone without at least doing some minimal amount of biochemical I don't, because I can sit here all night and we can talk the rest of ourselves out on all the possibilities and problems that can occur.

And I'm sure you might have some of those questions for me, but I think it's right to start something because at the end of the day, the whole thing about IV is goes back to our Hippocratic oath.

You do no harm. You're out to help the patient. If you're doing something and you can't clearly tell me two things, a that what you did was safe and B that there's efficacy to what.

Why are you doing it? Now, if I do something, I give something to a patient, Two cocky and then doesn't sound good so i stopped it i used to say to a patient by the way if you ever when i give you what we are protocol today you come back six months i'll tell you the same thing because.

I won't recall what i said but you can hear the reason but that's true to large degree if u can't have a reason that shows that this is for efficacy for this patient.

I miss one thing if you want to get you're giving someone some hydration that you think there are dehydrate it's maybe that's out of this but what you start mixing materials together once you trying to fix something or you try to have you have a goal in mind so how did you get to that goal.

what history, what physical, and what at least minimal biochemistry led you to what you put in that bag and gave that patient. Let's talk about that because I think it's important for medical providers to understand some of the basics when it comes to the diagnostics that you should utilize when you're assessing your patient to treat with some these IV nutrition therapies.

What does that look like? Well, for me, it's a very comprehensive look. You know, I use the example, that I like analogies. I think people understand analogie very well.

So the very first thing I say is, look, years ago, you're much younger than me. But years, ago you may recall, You took a car in, they looked under the hood.

They looked at the air filter, They changed the oil filter. The oil lubed your car. they didn't see anything. And they checked the carburetor. Bye bye.

What happens now? You take your car and they hook it up to 150 cheque. So you should be hooked up 155 cheques. The more comprehensive, the more in depth without becoming ridiculous, you're gonna find out more about that person.

I do a very in-depth look because of the type and patient that I get, but the I look, I know how to adjust that IV and whatever other program, whatever I'm using, oral or not.

So I tend to give the example. Let's see if I could do this example for you, like I did in front of a group, how different we are. I spoke in a front a of group about four months ago, about 400 people.

And I said, is there anyone here tonight that's going on a plane for the vacation this summer? A bunch of people raised their hands. Great. So to tell you what, I have great news for and they're just looking.

I said, I've been watching a lot of podcasts. I'd been watchin' a lotta YouTube and things of this nature on the mechanics of a plane, how to fix a plan.

And I actually read five reference books on it. So you don't need anyone to fixed your plane. If you call me, i'll go out and I'll check the plane for you.

Everyone starts to smile and laugh. Listen to that. You laughed, and you should. There's a million parts to a plain, average million. The human being has probably somewhere around 868 trillion chemical reactions, give or take, per second.

So as ridiculous as that is, how could I call myself a biohacker mechanic of an airplane? and so you're listening to this person over here and this personal here in this percent over your trying everything in you make a milkshake and you think that's the right thing to do doesn't make sense let me take it a little further i tell them you have thirty seven ever take trillion cells depends who you read let's call thirty-seven trillion of the thirty 7 trillion sales we have trillions of faults or problems to single-stranded DNA every day.

The body typically 99.9% of the time fixes it. But we have one to ten per cell double- stranded attacks, which is a

hundred trillion approximately to the double stranded DNA.

So you're literally, any one of them could turn into a cancer. So if you're not maintaining nutrition and perfect everything across the day, you can use all your words that you like.

I eat clean. And I never know what that meant, Sam. It means that it means you sterilize or eat, I don't know. You wash the food under the seat. That's what it is.

We clean, we do this and all that. Hence what I do is to be able to make sense to the patient. Now the minimum for IV Before you even do a little bit should at least be a complete blood count a CBC and a metabolic profile You don't wanna hurt anyone's kidneys.

You wanna to hurt anybody's liver. Right. Ya know, you don' wanna dilute them. If there's anemic, ya know. There's simple things that you could do. Minimum to do that.

Now, I go well, well beyond that, that I look at, y'know, inflammatory markers. I wanna see as much as someone's biochemistry as I can. So I'm looking at the hormones, so I looking the inflammatory marker, looking nutrients.

Um, So, i'm really in pretty much every category because I could get a smattering enough To look at this with that and some physiologic tests that I do to give me a hint of Mitch.

This person would do good in this or no Mitch go further into their biochemistry. So yeah, well, you know, not just for the safety or even the course of treatment portion of it, but.

getting that baseline, running all of those biomarkers, how you just mentioned, is what you're doing working? And do you have to adjust it mid-treatment when you two, three, four, five weeks in?

How do know? You can only know if you had that base line. Exactly, you need a benchmark. And these are my benchmark. And like I said, I always teach biochemistry physiology, so in my case, i'm always looking at the autonomic nervous system because pretty much nine out of ten diseases either initiated them or completed it in the autonomic nervous.

The only thing it does in this trauma because it's immediate, there's no time for regulation. I mean, everything from cardiac nervous to all are intimately involved in the autonomic nervous system.

So if you have both ends of the thing, of a spectrum, physiology, biochemistry, you'll have your history. You've done a good physical. I think you're as prepared as you could possibly be.

Will we know more when you and I are long gone and our great, great great grandkids are here? Of course they'll know a lot more. But you will have to work with what you had.

In my opinion, You have do the very best you possibly can for these individuals, for this patients that are You know, coming to us, they're looking to, us they expect us.

They, you know they, don't know what else to go to. And that's important. So I think skimping in that area is the wrong thing to do. I've told Sam, many patients, Oh, I don, want to know do that.

Do this. Okay. It's no problem. Really? I said, yes, there's other doctors. Yeah. I don't need another patient. I said, I'm here to help you. Think that's important and you started to see that in a lot of different health care settings that even with chiropractic right you had all of these Facilities these franchises opening up the joint.

I'll just say how it is. They're not doing any x-rays They don't touch it that you just go in with back pain and they just ahead and adjust you and for me it's just like man, you don't even know what's going on with this person.

If they just had some kind of injury, an accident, like you could make that situation a lot worse. So I agree. You

know, baseline, getting that baseline and doing some diagnostics is very important.

Dr. Mitch, I wanna debunk a few things on this podcast as well. I'm going to you as the guru. This is a true or false, and then you can elaborate a little bit on your answer.

True or False. Are you able to do a precision IV, sorry, a Precision Vitamin IV Therapy IV based off of epigenetic testing only? No. Okay. I know you didn't finish, but I answered it already.

I can elaborate for two seconds if you want. You know, the epigenome for the folks watching is pretty much the environment in which the genome sits. Everyone has single nucleotide polymorphisms, every single person.

Yes, it will change the way we do, but the epigenome controls that genome. The genome itself may never do anything specifically as far as reproducing itself or not doing something.

So knowing the Epigenomes, and yes, there are tests that sometimes that can look at the Epygenome and see, you know, where it's at, so you might do things that maybe stabilize it, But it is not enough to know what IV to do.

The best way to stabilize the epigenome is do the meditation that you were talking about earlier with Joe Dispenza. It actually changes the gene expressions significantly in literally an hour or less of just thinking and making things happen the way you want to.

I use the brain tap, Dr. Porter's brain. Something works very well for me. So this is one thing that I got into a little bit of a debate in the industry, where people are creating these so-called precision IVs based off of an epigenetic test.

And I'm thinking to myself, it's like, you're not even gonna do a micronutrient test to even see what nutrients are actually going into the cell, or what the body's actually lacking?

How are you doing a precision I. V. just based of the epigenetic tests? You can't, but it's a good gimmick, don't you think? Look, you know, there are so many gimmicks out there.

I've been around so long. Every new nuance that's come in. And I'm sure there'll be more that will bypass me. But for sure, knowing and doing and looking at the epigenome itself, There is absolutely no way you can tell what's happening and what IV you're going to give that person.

Now you could use an algorithm of your choice. The company that's doing the testing, I'm sure are the ones pushing it. The companies that do it probably can make an algorithm that this is this nutrient is best in here and here.

Uh, it just doesn't work. And I hate to tell you neither does micronutrient testing work at all in my opinion. Okay. So this, this where the question is going now.

How would you, as Dr. Mitch again, create a precision IV? What, what would do you utilize? Yeah, that's a great question. Number one, it's my huge comprehensive biochemistry that I did and the physiology functioning that i find.

That's how I create all the data points. They're real, they're reproducible. There's something I can watch. I look at it again and again. Like you said, I could go back.

The epigenome may or may not change, you know, in me, it may, or me not changed. You're not going to change someone's, they do these, these genetic modeling too, makes me laugh too.

I used to teach it, but there's not much I can do as far as I give you a perfect example. I have lots of patients that will come in, you know, the same.

Oh, I've an MTHR problem. So I usually, first thing I'll say, is it heterozygous or is a homozygus? They don't know

what I'm talking about. It doesn't matter.

Well, then I explain to them, look, First you should be aware, there's nothing wrong with using methylated bees and to begin with, a methylated folic acid anyway.

You only use it anyway, but here's the thing. A gene does not have to express itself. You can have a SNP or you can do these gene testing that suggest you have the loss of the MTHFR or have Mthfr and means that you won't methylate properly.

But it doesn't mean it's going to actually express itself. So they said, what do you do? I said very simple. I never do the test. Well, how do, you know, then I sit simple, I look at your ad, watch the homocysteine and I track it over time because I know the entire pathway.

of the biochemistry of it. I know that the homocysteine will start to rise. If it's not that, then it is the level below it that's a problem. But the key is, if the homosexuality is fairly within normal range, it isn't going to and be outrageous, and I've seen this lots of time.

I have gotten patients from the University of Miami, a kid had 180 homocysteine, that's insane, when 6.5 around is normal. And we brought it down to normal, took us about three months, I got it to down normal for him.

Methofolate was kind of the primary nutrients you were given to bring that down? What's that? I use methyl folate, I used B2, B6, the things that belong to that.

I also accentuated the secondary pathway to have methyl donors occur. You know, i used that as well. i made sure they didn't have a sulfate deficiency or one of the other deficiencies in the pathway.

And I just slowly because sometimes when you do things too fast another problem with these clinics that like to jam things and we can get to that makes a huge difference huge different and he's back to normal to young fellas back work doing well and but that's the kind of thing that i'm always concerned about i wanna know.

What's actually happening in real time that I can affect? You know, you want to affect it doesn't matter You can even have a BRCA gene which of course depending on you read it goes from 32 to 85 percent that that woman or male will have A breast cancer or ovarian or something of that nature and the truth is there is a percentage that don't the worst of all of them is an MU I Can't remember the total one gene dislocation, which actually 99 percent.

They'll have colon cancer So there are a few of them so i always say why do you get this and when i talk to doctors or health care purchases why you getting these things we can do about it.

Oh, then you're gonna send them for a genetic, you know, talk to talk, to a genetesis? How's that gonna help? That's not gonna make anyone feel bad knowing they have a 45 or 50% increase in pancreatic carcinoma, or you have marked increase and colon, Or you an increase impress, what are you gonna do about it?

Well, at that point, yeah, I think about stabilizing the epigenome, that's important, but the best way to stabilize it is by giving the nutrients that it requires, the IV.

that could be specified as well as then you're doing meditation and other things along with it. That's what you do. You prevent the cells from going bad basically.

It all comes down at the end of the day to cellular medicine. Cellular medicine So guys, you heard it from Dr. Mitch again. You cannot create a precision IV based off of epigenetic testing and not even the micronutrient says, these are good tools to use as a guide as you're treating your patients and get that baseline.

But the stuff that we're seeing out there, it's a gimmick. There you go. I wanted to get out of you and I appreciate that. Dr, again, when it comes to IV therapy, Going back to a lot of these clinics just offering these IV drips out there, I want to go to the basics.

I wanna start talking about the solution that's being given to these patients because you got some clinics out that use lactated ringers, others are utilizing only normal saline.

You know, but I've seen people give high dose vitamin C and normal sailing where this is like a crazy hypertonic solution. Let's bring it down to the IV therapy 101 here.

Okay. Hypertonic solution versus hypotonic solutions. Okay, so the first thing we need to go is to back to biology 101 when you're a kid, probably high school biology, you realize that fluid will tend to move on its own to where the greatest solute is, where most material is.

So if you think of the red blood cell, for example, and you the space next to it where fluid's going and where there's fluid, fluid would move where's there the most amount of solid material.

It's the best way to think about it. So, if there's the most amount of material in the red blood cell, then the water will go in, what will happen? The red cell will blow up and eventually break.

The opposite is, there is less in this area, more of soluteness, and the cell begin to squash, which we call crenation, will give up its fluid to the outside.

Now, which is safe? Neither. But, there is a but. The hypotonicity is the most dangerous. the hypotonics solution is that one that will go in, go to where the solute is, blow up the red blood cell, and cause haemolysis.

That person can have a hemolytic anemia. Uh, the other one, if it's given slow enough, you probably can get away with pretty high hypertonicity solutions, um, where the osmolarity is quite high.

Now you normal osmo Larry's call three 10 is normal sailing. And you're probably the, the closer you could get the better, but typical solutions I give are probably 800, 900, a thousand I have in the past.

I don't typically anymore. It's given 16, 17, 1800, But it's the time the body does regulate to hypertenicity much better than hypotensia. So if you go slow enough, which you should do anyway, then the body will accommodate that type of fluid.

If you don't, Then you expect what's going to come from having fluid overload and, you know, shortness of breath, chest pain, headaches, and everything else that goes along with these side effects.

When you're talking about osmolarity, there's no question, whatever you are going put into someone, You better be aware of it and what you doing. Because not only you shifting solute, but you could be shifting electrolytes too.

and cause an electrolyte imbalance simultaneously as well. You have to be very cautious with doing that. That's 101 answer to using it. There's more to it, there's no question higher concentrations of let's say vitamin C will go into a cell better than lower concentrations because there is a gradient to make that happen.

but in general from the safety perspective you want to make sure that you're not causing massive fluid shifts in someone because the body that's not young supple ready um liver damage or kidney issues is not going to tolerate it that well and then you run into issues maybe not why they're in your clinic but later on and you may not even know about about the problem but it should always be as we said it Would it be safe to say that any providers that are looking to offer high dose vitamin C to their patients, they should really consider not just using normal saline, but utilizing sterile water and other type of foods, correct?

Yeah, I'm sorry. Absolutely. You know, if you're going to use high dose, If you know the osmolarity, it's very, look, you never give sterile water. you don't see steril water in the hospital, You didn't use it when you were a paramedic.

No one gives it. It's too hypertonic and it will cause problems. However, the minute you move material into that, that sterile water, you're changing the tonicity instantly.

There are only two things that change tonicity fairly regularly, because each individual item has its own sort of set osmolarity. Vitamin C is the one.

Magnesium, myself, but you never can't use that many, what, four, five, six cc's. But vitamin C you are using a lot, and the liquid. So if you want to raise the tinnicity of a solution, Drop the fluid or you add, you can add more salt or more sodium ascorbate as vitamin C.

If you wanted to lower it, either add or lower this. That's really the key to maintaining it. So using sterile water is a fine thing as long as the practitioner who's ordered that is quite aware of what am I dealing with.

IV Safety, Osmolarity, and Preservative-Free Formulations

and how much it is. I normally, when I teach I, teach one thing to keep in their mind, a simple one. When I call a mini, uh, you probably, I trained you on it.

Um, and from that, if you know the tenacity of the mini you, know how, much vitamin C is in there. So, very quickly if any other IV, what you're doing to it, You know, how to adjust it?

I mean, no one sits in and runs it on each one, but you have to have a very good sense of where you are at and what, It's not only that, tonicity, but you also run issues with the material you're giving.

Vitamin C is the mainstay of a lot of the nutritional. People are not aware, perhaps, that there's 64 milli-equivalents of salt for every cc, for ever 500 milligrams.

You give, you know, 100, your giving 100 times 64. So you are giving 64 hundred milli equivalents salt. That's like eating at a fast food store three days in a row.

A french fries with salt all over them. And there are certain people that have no problem with it and they're elderly that you can put into heart failure from it.

Right, right. Is that from the hypernutremia from? Yeah, you. Can cause hypernatremias because vitamin C is a salt base. Yeah. I actually I have your osmolarity calculator that.

You develop and I still use it till this day. So which if you're comfortable with that, I can share it as a link on this part. Of course. Yes. All right, so we're talking about high dose vitamin c.

What is high dose vitamin C? And the reason why I asked that is, in the industry, yeah, some people say, oh, well, 10 grams is a high-dose vitamin c. Oh, no, 50 grams of vitamin is C.

What IS high dos vitamin? Well, we go back to the basics. Vitamin C is actually a twin edge. You have to be aware of it. It either is an antioxidant. All vitamins are antioxidants.

At most levels pretty much every vitamin name it's an antioxidant of some sort by definition meaning it is willing to give up a electron from its outer field to pretty must stabilize a free radical which has only one electron of the out of fear.

that the basis of free radical medicine, but So vitamin C is an antioxidant by definition at some level Vitamin C. Is going to become oxidative now What are you trying to do should be the question because it's again goes back to what I said What's the purpose of what you're doing so for me if I'm treating for example a cancer patient?

I want oxidative doses, I wanna reduce the glutathione intracellulite, which high dose vitamin C does. I wanted to create hydrogen peroxide which the cancer cells do not have catalase and where the good cells and it will disperse it and make it into water, et cetera.

So the answer to it is not that easy, but I will tell you. If you look at vitamin C, to get to levels that are basically

tumoricidal, which are oxidative levels, is somewhere between one and 10 micromoles per milliliter.

What does that mean? So you're looking for somewhere, anything after five to 10,000 milligrams. It starts to become oxidated. There's a caveat to this thing.

But for sure, If I wanna be sure, I'm going to be above 50,000. Now in cancer I use 1.5 milligrams per kilo, so I'll be in the 7,500. I know I am oxidative, because I want to maintain the oxidate of levels and I now that if I put, you know, give 100,00 just for example, for the most part I will be running, 1 to 10 micro moles per milliliter, 24, 25, 26, 27. If give it quite slow, which is the only way to give an IV, that for the four hours that I give it, or four and a half hours, I'm way in that, and I know that when I turn it off, because I use so much at the degradation rate, which is about two, two and half hour for vitamin C, that in eight hours then will start to be below.

So for 12 hours I mean that tumor cytol event. For those that don't know, vitamin c orally can never reach tumor cyto events and not be cytotoxic. So I'm trying to run the range in that.

So if you're trying, for example, you want to try to be anti-viral, then anything around 20,000 to 50, 000, I find that range to oxidative enough to anti viral.

at the same time to be immunologically stimulating I want to beat oxidative like certain cancer specifically like sarcomas need a lot of oxidation then I'll use much much higher levels and I go that 1.5 and then you're on the other side so.

Again, it depends, I told you there was some caveats to it. There always is. So if you had to, and I hate putting you on the spot like this, but I know what a lot of the viewers and listeners are probably thinking.

If you were to have to pick a specific number, grams or milligrams for ascorbic acid, for the vitamin C, For it to be considered high dose vitamin C, what would that number be?

More than 50 grams. More that 50? 50,000 milligrams or more. So now when we start talking about, you know, someone getting high-dose vitamin c should get a G6 PD test, are you running the G-6-PD test 50-grams and above, or are doing it also for the person getting 20 grams or 25? I do it before I give them an IV of vitamin-C.

Okay. Now, here's the deal. For the most part, you know, look, the Ashkenazi Jewish population does have that problem. The Mediterranean people do. 10% of the American black male population also has G6PD.

So… What happens with that? Just so the people don't understand. Okay, so if you have deficiency, You're not able to degrade vitamin C well enough. And, um, what happens is you can actually bleed.

It was known originally as father ism if eating father be a father beans or broad beans, people in the Mediterranean found that when they ate this, they would bleed that you could actually cause someone.

Everything you don't want, meaning they can take it. If they have a G six PD, that go to the bathroom and they could literally urinate and bleed the whole toilet, toilet up.

Um, you. So getting him a g six pd, excuse me for me. really regulates how much I can give to that person. Now normally you can get a little bit Orally, it's extremely hard to cause hemolysis and cause RBC breakage.

But when I'm using doses that I am using, I wouldn't dare give it to someone without having a G6PD in my chart to prove it, and I put it in notes and so forth.

You know, if you're around 5,000 milligrams, they say even up to 40,00 in some studies that i've read in the past are okay. I would not recommend physicians that are watching this to do it.

at 40,000, I would recommend if you're going to see a patient, you are going use IV nutrition. You're gonna use intravenous and get a G6PD. Should be put on your baseline.

It's a baseline test, it's bottom line test. it tells you a lot and you know, now I have patient now who has cancer, who had a very low G 6PD, and I said, okay, we use something else.

I didn't use that. And by the way, for those of you out there that are doing methylene blue, Be careful because G6PD deficiency will also cause that person to bleed too.

If you're using intravenous methylene blue, you better have a G 6 PD in your chart. I heard even ozone. Oh, yes. Yes. You if you don't have G six PD, all these there's these things are not tolerable for these people on certain levels.

And everyone's you know, everyone is different. What five, ten thousand will do to one. It may do it. Five to another or 30 or 40 or not. You don't know, but why would you take a chance?

It's all about what I said. Safety and efficacy. Why would I, why wouldn't I compromise that any patients make any sense? The point is you have to have the capacity.

Like we said, I'm going to tie it back to what we set earlier. the physiology and the biochemistry, so you know how to build a bridge five different ways.

So if the first bridge you can't use, use another one, build another. That's the big key to all this. Now, Dr. Beatrice, I remember you telling me before when it comes to, we're talking about high dose vitamin C, and you were telling about how patients, when you're giving, let's say just 25 grams, 50 mLs of this vitamin C, and sometimes you going quadruple that with some of these patients.

The importance of utilizing preservative-free ascorbic acid. I want to talk about the importance preservatives- free nutrients, especially when going to these high doses.

And I know the typical preservate is benzo alcohol, which we all know that Benzoyl alcohol is a known toxin, if you will, right? It can cause oxidative stress, could cause inflammation, which kind of really makes me think that's kind counterproductive of what we're trying to achieve, Right?

You think? Well, first of all, let's go back to why someone would even use a preservative one. There's a couple reasons. One, certain elements, the smaller ones come You know, the ones that you use less of, they come with benzoyl alcohol.

Benzoyle alcohol typically is nine milligrams per cc. To give you an idea, once you get close to a thousand milligrams, you're in a big toxic troublemaker.

Tell me more about them. Yeah, so nine kilograms pretty much per CC, a 1000 milligrams you are already toxic. Babies even less, by the way. The point is, why would you want to put a toxic material regardless?

Even if you using a lesser amount, if someone can answer that, And then, okay, I'll listen if they give me an academic answer. The other problem is like, if you use preservative vitamin C, you have nine milligrams per, let's say you're using a hundred thousand, a 100 CCs and you.

A hundred CCS for 50,000. You're doing 50 thousand. Well, 100 times nine is 900 milligrams right from that alone. Your on the edge of this being toxic.

So how in the world are you creating improved cellular activity? Now, I understand why most do it. The reason that most, do-it. And I'm gonna say something, and then I hope I don't offend any of the others out there.

But, the reason they do is because, once you stick a bottle with a needle, it's a single-use bottle, there's no preservative, you need to use that bottle up in that day.

So, for those that need you to stick the bottle several times, end up the 30 days once, with pencil alcohol in it, You

know, can use it over and over again for IVs.

If you can't use the single vial, you cant use enough. A, ask the compounding pharmacist to make you smaller vials instead of 30 or 50 cc's, number one.

And number two, if you cannot use a smaller, don't want to pay for that, then don' t be in this space. I mean, I tell people, okay, you know, it's here.

I'll tell you what, i'll put benzo alcohol in a cup and here iI'll just give you the thousand million to have a drink. And there's not a doctor watching that would say, what are you nuts?

But you're okay putting it in the vein, but you can put it In someone's vein. It reminds me such ridiculous stories. Can I Tell you a funny story? Well, my brother-in-law at one time, because it reminds you of this.

He's a dentist and he graduated first in his class at one point as years ago. He said Mitch I need to fix this tooth and put you have a cavity drill it I'm gonna put him I want to put we're gonna Put it.

I wanna put amalgam and I said you are not putting mercury in my tooth He says Mitch the ADA says yeah, it's the right thing to do. It's not really I say, okay I Want you to explain me one thing and then do one for me and fill it with a amalgram.

Okay, Mitch. What do you say? I said, explain to me how that amalgam's toxic when it comes out of the machine. You put it in my mouth, it becomes non-toxic, but when you take it out, OSHA suggests that you better take out the way they say or you'll be fined $10,000 for the removal of that.

How's it possible it goes from toxic, non toxic for 15 years to toxic again? He's looking at me. I said, but that's the only the first part. The mother part is I want you to take out the amalgam you're going to put in, take your glove off, put it in your hand, close your hands around it for 10 minutes because then you can put them in my mouth.

He goes, well, Mitch, I can't because it's I say, what? It's toxic. Yes. Now you get it. So you. Can't put. It in. My mouth, you know, the next day he stopped, he read, sent him papers to read.

Never used it again. Really? because i mean it just was logic i said you're going to listen to your association i'm sure whatever the reasons it's not for me to know i don't know but how are you going do something that's so illogical it there's no logic to what you are suggesting to be done and that is what it is same thing in this case where is the logic of using a toxin and it goes also to one other story that i will tell you oops sorry and is that the argument it only a little bit that what others will telling me No i had that once i was doing a talk show i have my own show is in north carolina time.

I was saying how there's toxin and apples and blah blah and i want my kids eating organic so i get a call from a farmer. No doctor mitch. What you're saying is not right okay talk to me man okay we talking here.

He said to meet you know that the that you for me to be a grower and make a living. We use these toxins it's only a little bit in each one. So i said okay man want you to listen to make.

I have kids. My kids, they have found that studies show that if you have an apple a day, you usually have about 14 toxins in your system by the end of the year.

I said my children are young, their livers are not. a capable of handing all this, but you want me to do a little bit so that you have your living. I got it.

Oh wait, wait. What about the guy who makes the asparagus? Oh yeah, a bit, it's okay. And what about this one, little? I said, you know what? You can take your little.

Of course it is radio. You know where it can go. Great thing about radio is you can click, goodbye, guess what, I

don't think you ever called me again.

But it s the same thing. Why are we not doing the best thing for our patients? If you cannot afford it, then why be in this space? And look for something else.

And if you really wanna do this, I tell people, you wanna learn something, don't put your foot in the water. We don' teach our kids on deck how to swim.

we get them in water, we got them used to it, We teach them how put their face on, and we teach on the swim, When it comes to ivy adamant as you know sam about you need to learn how to swim in this field you to know these things i mean you don't know every nuance to it nobody does i don either but i'm learning everyday.

And the point is I live and breathe this. So, and you know, in my career, I've given hundreds of thousands of them personally. I want to know that I'm helping patients.

We've created a particular product with NSAO where everything from the glutathione, the B vitamins, from ascorbic acid, it's all preservative free. Smaller vials, how you said.

That's what they do. Exactly. Just give the patient the best quality product. Something that's not going to cause further issues. You're spot on, continue in that direction.

I'm proud of you. Thank you, thank you so Dr. Yen, we're talking about toxins, right? We all know, especially with the big movement that's happening right now, Make America Healthy Again, about all of the toxic chemicals in the foods, toxic, chemicals and our environment.

There was a study that recently came out about there being toxins microplastics inside of these IV bags. Did you read about that? Yes, I'm very aware of it.

So study came out. How do we prevent those microplastics from going inside of our patient? Okay, so we have two issues. The prime issue of the article is pretty much a no issue.

It's what I am going to say, secondary. Okay. Primarily, the micro-plastic that we're seeing, 95% of them are larger than a 0.22 micron filter. So you could put an inline micron, you know, the filter set where the stuff will drip through and get 95% out.

Do you run all your IVs with that micron? No, but some of them, well, I'll come back. The answer is no, because none of the IV's I use, they have no microplastics in them.

You used to use glass, there are some. Braun makes a few that do not have any of those microplastics in it. So you don't have plastic. But anyway, so EV, like EV the ethylene vinyl does not do that.

It doesn't leach. And it will come back to leaching. Yeah, I know there's like the DEHP free. Well, that's the one you want. PVC free, right. Because that the plastics, the A, bisphenols, okay.

So the problem is not that part. Here's the real problem. It's something called nanoplastics. So for every ML that comes out of a bag that's like that, you have about 1600 microplastics, which we could probably get off with the filter.

But there are millions per ML of nanoplastics. And guess what? You can't get that with a filter..22 micron can get to it. There's not a small enough filter to grab them.

Millions per ml so it's the nano ones that are the problem and of course you have other things that will that Will help if you for example if that you left your bags in the heater in a heated room They're going to leach more heat makes it leech much more Anything that we'll change the pH specifically more so towards the acetic side.

What are we using vitamin C? So if make a bag and keep it for several hours before you're giving it to the patient, you doing them a disservice. You should make the bag as the person walks in and give it them so that you are also reducing that potential.

The more things you have in it, the more chance of leeching. We try to find which I use when I started. You may never have seen it. I don't think you probably saw it on the trucks, which was glass.

Years ago we used glass, but the glasses need a vent to the drip set or you have to put a needle in to vent it or nothing drips. It's pretty embarrassing.

Yeah. And I've only seen the glass bottles when, when i've gone back to Dominican Republic. But actually it's the best because there's no leaching of anything.

Or you you change the bags to the ones that don't that totally now do we know everything that's reached even in those and yeah we don' and again it's always about a benefit rate risk so let's go back to sort of.

Put this conversation together a little bit. If you're just taking a substance and you already have the tenacity messed up and then you put in vitamin c and it switching and its warm and if you know.

I knew, but you preserve the pencil. You could be doing it. I did the extreme for a reason. you're really gonna be doing a disservice and actually causing a lot more problems just because you don't see it at the time of the IV.

It doesn't mean that person's doing well, you help them. So all these things must be taken into consideration. They're good questions because these are things that, as infusion centers are, they need to address this too.

Do I believe the infusions centers that are like you pick out the milkshake like that you said earlier or however you put it was great? I don't think so.

And I think there's so much that's going on, it's a problem. I want to give you one other example. This just happened two weeks ago. and they were have, they had a nurse that was working for them.

The nurse is taking her course and becoming a Nurse Practitioner. She has a friend that's a Nurs Practician who says, come on down, I don't know where it is, and I'm not gonna say even if I knew, but come one down.

It was to the south of Boca. That's all I can say. On a weekend, let me give you an IV. gives her an IV, I have no idea what, actually uses a pressure cuff to put it in, puts ozone in it too, everything that I would consider you could do wrong, this Yahoo did wrong.

And this is what happened. I got to meet a woman. She gets up after the IV, goes totally blind and falls to the floor, has a CVA stroke and a heart attack all the same time.

Ends up, of course, intensive care. Thank God the woman made it. Her EKG looks like something you would go nuts if you were still in paramedic. Total inversion of all of the T waves across the precordium and everything else.

Is never is not the same. I don't think she'll ever be the thing because they probably damage so much tissue, you know, by definition. Am I and stroke or necrotic tissue?

I mean, she's never going to be perfect only because the person who did it was a in a hurry. We never knew how to add mixture properly. Probably didn't follow, you know, the main USP 797, which is what we're regarded to follow as doing moderate level type of compounding work in giving IVs.

And these are the things that will happen. Again, I can't emphasize enough, and I just got done teaching about 84 doctors last weekend in an IV. And the emphasis at the very beginning of the lecture is, if you don't know how to do the safety and you want to take the time to learn what works, whatever, learn one or two IVs.

Use what I use. It's safe. Don't do anything else. And because otherwise, what are you really doing? If this is about money, I probably can give you 10 other fields you can go into to make more money.

Let's be honest. But if you want to do something that's good, it will add some additional remuneration to your practice. It will, of course, really help people when you use it, utilize it properly.

If you wanna be a headache institute after someone drinks too much at night, and you want to just give them lactated ringers, okay, God bless you, that's your thing.

It isn't mine, but there's a whole gambit between this and me. And just whatever, at least be safe. So you were talking about some of the heat, making the bags leach off plastic and things of that nature.

You know, there's always been a bit of talk about the nutrients going in the bag being sensitive to the light, and people buy covers for it. What's the 411 on that?

It's a great question, Sam. The vitamin C particularly degradates in a light. If you want to be a purist, you should probably use either a life-proof bag, or you could even use tin foil and put it around.

The key is the same, as I said earlier, if you choose not to do that. Make the bag no sooner than when that person is there and in your clinic. Don't make it sooner, because you do have two or three hours by, I think, USB 797, then you have X amount of hours to give it, but all the things that we've talked about tonight are going to be occurring, which doesn't makes any sense.

And not only that, there's, again, an economical perspective. You make a bag and the person doesn't show. If you think you're gonna keep it overnight, if you do, you should be whipped, so to speak.

So make it when someone comes in, even if they're not using light-sensitive bags. Like in my office, it's dim. I don't have real high… fluorescent bulb and UV light hitting it.

I don't typically cover it, but if I feel it's being delayed, I will tell them to go ahead and cover. Most of the time, it won't degrade that much, But vitamin C does degraduate in light.

So you want to get it started, make it put it in. That's why it comes when you see vitamin Z comes in a real dark bottle. There's a reason for it and but again, if you wanna do it perfect and I encourage everyone to do a perfect either by lightproof IV bags, which you can put over it, or just can tip foil.

But you want to be able to have what's in that bag to seen by any nurse and they want it walks by immediately. So if you're going to use tin foil, you'll have to do some other tape measurement that you could tell what is in the bag instantly.

So earlier you mentioned about the woohoo nurse practitioner that made the lady go blind. And one of the things that people bring up in the industry is, oh, these are just water-soluble vitamins.

Microplastics, Compounding Risks, and Infusion Complications

If you have too much of these vitamins, you'll just pee it out. But as we know, and I've learned from you, there's certain nutrients, minerals, that if you give a patient too much of, it can cause things like irreversible hearing loss.

So I wanna touch up on that, about some nutrients that you can really harm the patient if give too of. Well, let's go back to the base. Theoretically, Sam, and too much of anything definitely could kill you.

That hypotonic water, hang a bag of sterile water. I'll count one hour, the patient will be gone. They'll have severe homolysis. So any nutrient in any inappropriate toast could cause a problem.

The one you were suggesting and talking about was a zinc. There have been studies that show that more than 10

milligrams of zinc should never be given in a single IV because of the fact that there is irreversible unilateral hearing loss that's been seen in the literature.

You name the mineral, you could do it with any one of them that you give. If you gave too much magnesium, they're called hypermagnesia. You better have an EKG and have someone like you around.

Potassium, lethal injection, right? Of course. All of these things become… There isn't I guess I want to make it clear to the audience that's watching, especially the physicians, healthcare practitioners that are watching the show and certainly appreciate your being here.

You have a great show. We have great way with you. And by the way, I should say that, you know, and I think it's wonderful. But anything can become a problem.

That's why it has to be adjusted for that individual. And that's really the case. So any of these, any nutrient could become, I mean, even too much B12 could actually become an issue with, if you give too of that, you name it.

You could give to much of any them, which will actually can cause a significant problem side effect. Right. Thank you for the talk. So let's go into glutathione, the master antioxidant.

Who should get glutathione, who shouldn't get gluteathion? I've heard things about asthmatic patients, patients with sulfur allergies, glutothione. Let's talk about that.

Great, it is the number one intracellular antioxidant. So you're asking me, Who shouldn, and who should not get it? Okay, so you are right. If they have a sulfur allergy, It's made by recombinant DNA, but a Sulfur allergy can be an issue and you should be very cautious in giving it with somewhat sulfate.

As you said, we, by the way, since we're mentioning mag sulfates. Mag chloride, no, but magsulfate, yes. If they have an allergy, they can have a serious.

anaphylactic reaction to make something so with that being said um… if they have an allergy to it it's something that you should pull off if i'm treating a cancer patient in most of the time with high-dose vitamin c vitamin C robs glutathione so that cancer so can't live why would i be giving glutothione back again so I don't use it for that.

The other extreme is why give it glutathione? Well, as you get older, you're not producing as much. It is an important intracellular antioxidant. it does fit into the cascade.

And going back to the earlier discussion, when you look at free radical chemistry, every time you take a molecule off of a antioxidate, like we're talking about vitamin C, it becomes a free radical.

So it has to be paired with E. And again, E will give up a molecule, but then it become a Free Radical. Then you have alpha-lipoic, and that gives up, that will make an alpha lipo-ic good because it's in both sides of the cell membrane, so to speak.

and then you'll have glutathione. You want to try to stack the antioxidants enough so that you're stabilizing. The whole key is to stabilize the cells.

That's why sometimes we use Taurine because it's a very good cell membrane stabilizer and that kind of that thing too Anyone that's sensitive someone who has poor liver function.

You have to be very careful not to give the Glutathione any large dose. They can't process it fast enough. I've done it been there done. It you asked me a problem I unfortunately have had it you learn from experience I mean, you know after hundreds of thousands you've run into everything I at least could say I was able to correct all the issues but in you but they're god forbid if you can then what if your don't train properly so the glutathione in someone for example has liver dysfunction or has cirrhosis you cant give them a thousand or two thousand they don´t tolerate you have to start maybe four hundred milligrams to start with these people.

And like I said, when you're trying to reposition the cells to be healthy, especially in the wellness market, which many people are in that space, and you want to keep people healthy.

You want keep the levels of glutathione at respectable levels. The question which I know is coming from your mouth, so I'm going to answer it. Well, how do you know you have good antioxidant status?

Well you look at those parameters like for example I do MDA by t-bars which is a basically the gold standard mal and the aldehyde of the urinate looks for lipid peroxidation.

I like getting often 8-hydroxy diguanazine because it looks at 8 DNA adducts and DNA damage but if you have too much M. D. A. as well it will create a peri-oxynitrate the O. O. N.

O free radical itself that can cause damage. I look at hemoglobin A1C not just because Always a sugar in control because it is a very clear indication of protein Choking the red blood cell, you know, it's the sugar rather choking the Red Blood Cell So that's how I know and that how monitor that you asked early.

How do I monitor? Those are some of the ways I definitely monitor. Do I give enough? Did I get too much? did I change anything and That's that the way to fly right, but Now with glutathione, you know, some patients tend to have that flush feeling and have the reaction.

So I want to talk about the difference between a Hertz timer reaction versus potential endotoxin shock. Oh, wow. You're going to go down there. OK. Yeah.

It's important because, obviously, in the years that we've been doing it, especially when we first started, where a lot of these 503A pharmacies were just kind of producing stuff on the fly.

There was times that we received bad product that the patients were going into endotoxin shock, having the full-blown cotton fever. And I remember reaching out to you, I was like, Doc, something ain't right.

We're doing everything exactly how we've been trained and something's just not right. These patients are leaving and having, you know, so, but then as you start growing and you work with a lot of patients with toxin issues, right, and even something as simple, forget about the IVs, doing some of the stuff that Chris Shades does with Quicksilver.

You have patients that have that Herxheimer reaction, which is very similar to the endotoxin reactions as well, too, where you started looking at the symptoms.

So I want you to kind of dig a little bit in those. Okay. So, um, herxheimer, jarash herksheimer named after two, a German and Austrian physician back in the early 19 hundreds.

They actually discover this with syphilis, a spirochete, pretty much any sprochetes. So the way this occurs is if there's a large death either from antibiotic of a Spirochetes, it will give off a toxin.

It's because of cell death, high amount of cells death. That's what causes Jarrish-Herkheimer reaction. Yes, it can occur in a little few other things, but the greatest majority is because of whether you're treating Lyme, some other spirochete, because if there's cell death, It will give off these toxins.

It would increase the cytokine storm. So pretty much self-limited for the most part. it's a one or two day experience. Put that aside for a minute. The endotoxins are very different animal.

Maybe not in the presentation, which you said correctly, But the endotoxin comes from gram negative, um, uh, gram, negative bacteria, toxins, which by the way are in your sinks.

So even though you need to have a sink close to where you're mixing, it has to be six to eight feet away, according to OSHA and everything else. You don't end up with endo toxins.

That's why people tell me i go to people's houses and i mix right it's insane one oh one so i tell them okay so endotoxins are pretty much everywhere so.

The human seventy kilo male let's say healthy can handle up to about three hundred and fifty and toxic units per hour just keep that in mind to get a feel for it.

Smaller woman a child no. So, everything has endotoxins. So the fluid, the diluent that you're using, regardless of what plastic bag it's in or not, has about 0.25 to 0,5 endo-toxic units per ml.

That starts the problem. Now, now you take things. Vitamin C can have anywhere up to.5 to even up the 3 or 4. You should be asking once in a while, your compounding pharmacist that you're using, give me your endotoxic testing.

I want to know what it is because you need to have in your head. So here's an example of knowing how much you are putting in the bag to get that endo toxic shock that.

And then the toxic shot goes from that rigors and chills and things that look like gyroschirm or to something that could be intensive care worthy. Right.

You got to be careful. The endotoxins, by the way, can also be cumulative. So for example, if you give 325, 375, they handled the 320, the 50, there's 25 left over, not enough to cause a problem, then the next hour you're given again, it can accumulate and you can go over the amount that can be taken care of by body.

Everything's gonna have that. You should get a handle of how much you gave it. What is the key not to get endo-toxic shock? Very simple. Slow the heck down.

Yahoo work does not work in IV for many, many reasons. Cells do not take a good drink of this fluid unless it's given slowly. My rule, you know, is no more than 1 to 4 mLs per minute unless you're rehydrating because of an emergency like you guys would do.

But in a clinic where you are treating chronic disease and you want to get a net result that has efficacy associated with it, 1-4 drops. Now, most clinic want turn the chair if they don't have enough.

They want it to go and the nurse wants it go home. The person's in rush, they turn it up. I'm sorry, that's what causes endotoxic shock. And here's, what happens for the doctors listening and for folks listening.

It is severe chills. You get a fever, it's not maybe as high as the Jarosz-Herkseimer reaction, but you will get fever. Cramping and all kinds of stuff.

All stuff, and the chills are so bad, you can pile on these folks blankets and, and break every hot pack you have in the place and all the things that you.

You just have to wait it out with the knowledge that yes, you need to keep a cavio, keep the vein open. Yes, You probably should take that fluid off and have it tested for it.

Yeah. So you should put some other fluid on that's low that, which fluid is low and just keep it dripping very slowly. Cause remember you're keep adding even from the fluid, your adding more and more.

of the endotoxins into the system. So the key is just go slow. Don't be stupid. It will happen to everyone who does enough of them in their career. I remember the call with it.

And I told you, I know what this is, and this what you do. You hit the nail on the head. Then I started like reading up more about us. How does Dr. Mitch know so much?

Appreciate the compliment. And, and the key is basically go, if you go slow, wait it out, the person will be okay. You

know, you can give them hot liquid, You could do all of that.

The problem is you're still going to wait until that body handles those endotoxic units. After you lose the patient, cause they won't come back to you because they'll think that you poisoned them or something.

If they do come by some wonderful means, Realize that you need to go much lower. That's why I said, keep one ML to four MLs an hour. You won't get to that endotoxic level.

I know because that's what, that how I keep people safe. Absolutely. Okay. Methylene blue. Yeah. You have something to issue. You know me, again, I go safety and everything else.

I think, you know, methylene blue is anywhere from one to two milligrams per kilo. Some go even higher, five, six. Intravenously, it's mostly anecdotal data.

It helps the mitochondria people feel good. it is a die. And yes, i do believe that it can improve the Mitochondria in certain areas of the mitochondria complexes.

And orally, I typically never will give more than five milligrams and but here is the issue with intravenous other than the factors, you know, the literature scant.

The first thing is it will turn the urine quite blue. It's not a bad thing. But it does. it was meant for methemoglobinemia. You know that. We use it as an emergency.

Outside of that, It can actually, especially people taking SSRIs or anyone, it can cause a serotonin syndrome. Right. That can make someone nuts. It makes them hot.

You can, actually they can convulse. Why? Why would you do that? You could make them mentally foggy and everything else. When you'll probably get the same result using a much smaller dose, you actually can caused liver to be damaged as well.

And because we don't have and we know the right dose. And again, to repeat earlier conversation, if they have a G6PD deficiency, no amount is known to be safe.

At five milligrams, could it happen still? Yes, but it's on the very low end. You start putting in the arm without a g6pd, again I'll go back to, I think that person should be horsewhipped.

So guys, you're listening here. I know a lot of clinics are offering IV, methylene blue. Be very cautious. There's other alternatives. Maybe you don't have to go that aggressive when it comes to that.

And one other thing, Sam, it's a gimmick. It's new. it can help. But again, I would ask the same clinics, why'd that person need methylenine blue, IV?

Oh, because it'll help in what? Well, help their mitochondria. And I said, okay, how'd you know they're mitochondria bad? Now I do, just so you now, I sent a screen to California.

I know what someone's mitochondrion are doing.

Advanced Therapies: Methylene Blue, Silver, NAD, and CBD

Who do you utilize for? Me screen. Yeah, we were using a lab out of Germany, man, the IGL test. It was the best test that our doctors were utilizing where it actually showed all of your mitochondrial clumping, mitochondria potential.

This test, which is interesting, I'll show you a sample after we're done with the podcast. It actually would test for over 900 different toxins, but it would show that DNA adduct and what gene it was actually bonded to.

Oh, interesting. They gave you a lot of information. Yeah, a lotta people. Sometimes too much information, so, But I'd love to see it, I would. But the guy, the owner, he passed away, and all of a sudden, everything's gone.

Well, MeScreen is a very good test. Look, you know, do an awful lot work with them. As a matter of fact, was on the phone with the owners today, they like to check in with me, what I wanna do, I'm in that cancer area and i'm and I know what things to look for in the area but you see does give me a set because.

People don't realize the mitochondria is. responsible for 80% of the reactive oxygen species. So if you are very low, giving more antioxidants may not be the best thing.

If it's very high, you need to give more antioxidant. It changes my IVs and my approach. And for example, I can get a very good result, because I use a lot of molecular hydrogen.

I'm the chief medical officer for the BESC molecular hydrogen in the world. And I know I'll get amazing results with it because I can look before and after in these screens.

But the question is always, why are you doing it? Again, I always beg the doctors to be able to tell me why you're doing. If it's just nonsense, like because they need more energy or something.

I'm not buying that. if you could tell my specifics physiologically or biochemically while you are doing something, Then six months from now, like I said, you'll be able to tell me again.

Nice. I like that. So now that we're talking about some of these different IV treatments, right, not your typical just vitamins, minerals and amino acids, I want to talk about the silver, silver hydrosol.

You've utilized it. you've actually have taught when it comes to utilizing silver for certain viruses, et cetera. Yes. Let's go a little bit deeper into the silver and how it's utilized.

Yeah, I will. I can quickly do it. Silver is an antiseptic. It's antibacterial, antifungal, and it is also antivirus, like alcohol. Basically, it kills everything.

No antibiotic can do that. None of them sit in that antisceptic category. That's number one. The silver has been used, in the Bible, to purify water. Astronauts purified their water, Um, so silver sits in an area, some people will say, but isn't that a, um, heavy metal?

Well, first of all, it's a you miss, you misnomer nomenclatured it. It's actually silver is a transition metal anyway, and a heavy middle is not necessarily toxic and the toxic metals, not necessary.

Heavy metal, uh, probably a discussion for another time. So silver actually, acts against pretty much everything and the viral capsid will break. It has no just it has, no tachyphylaxis.

You can use it over and over again. it will kill the bacterial wall. I mean, just, it just is that good as an antiseptic. And unfortunately, if it's topical and you want to have like, you have a daisle, or you a sinus problem, and put it in, Nanoparticulized silver will go right across the bony ridges, go in, it's nanoporticularized, will do a great job, you're on a sore throat, that kind of thing.

Holding in your mouth for several times will end up going into the organ systems, but about only 5% of that will get into actual general circulation. You need intravenous to do that.

Now there are different types of silver the only silver that you can use safely intravenously and well and again i probably talk pretty much anyone that using in the country is my student the one that can actually you safely is a nano particular i silver for several reasons.

It usually has, there's only a couple I would ever use, it gives a very smooth appearance and coverage when you look at it under an electron microscopy.

So that's the first. Other silvers cause dot and blot. If you looked at silver chloride, for example, It would be dot-and-blot And that's the kind of thing that causes Argeria, which causes that blue smurf that can happen.

With nanosilver, I use 25 parts per million. That's really 25 milligrams per 1000 cc's of it. You can't become, you're nowhere close to the LD anything.

Let's put it that way. you are not even close anything that would cause a problem. And you so far from it, so it's very safe. The problem is it's extremely hypotonic and as we discussed, hypotenesis is an issue.

So because it is so hypotonic, it extremely irritating also to the vein. Little bits are okay, large amounts require a pick line or a board to be able to give it effectively, you must give slowly.

I absolutely maintain the rule that you must only give it one to four ccs per minute maximum takes time. Too bad. This is not a race. You want to get better.

And yes, I use it against different things. I was I've lived in Africa, you know, across the world in several places and doing work. sat with the former prime minister as close as you and I are on a, on the G four going back over to when we went and we were talking about Ebola and stuff like that.

Meanwhile, I'm there and there's an Ebola breakout, which really didn't worry me really to be quite frank. I've been in, there was an ebola breakout in Sierra Leone after I got back and literally was talking to on the ground to the people and i don't know if this is gutsy or downright stupid i said i will come i'll bring a team i bring all the equipment i'l bring everything and I think we can save most of these patients by use of very high dose vitamin c which definitely works in hemorrhagic disorders using silver and I was going to do it around around the clock and Everyone around me said Mitchell.

Are you out of your mind? You would go where there's Ebola because Ebola as the former prime minister told me Kills everything in the forest except the mouse And that's how I thought that Syria wait the Mouse doesn't die that rodent That's because it makes its own vitamin C Some I got it.

I've got this so I said I Got this I would do a literally talking, you know You know that guy you would see on a movie like I was there on Mars and I'm on the ground I Said I'll put the whole team dealer.

Oh get the all of it donated I what I I get people that are not afraid will get hazmat so we'll do the right thing You think I ever got there? No Never got their and i will leave it to the imagination because you are so intelligent you'll get it immediately the other people out there I will tell you Politics doesn't care about life or death.

I'm ending it with that. No, enough said on that one, for sure. So, Doug, I got another question here for you. We've covered primarily all of the topics that I wanted to discuss, but there's a huge trend right now that's happening where people do the NAD drips for the brain reboot as it helps them with cognitive health.

But now there is, True Nigin came out with an NRIV drip. What they claim, based off of their clinical research, is that the NRIV drip, number one, you can do it a lot quicker than the nad.

That's true. And number two, that nad levels intracellularly are much higher than doing nad by itself. So the question is, Is that true? I'm not sure.

The literature is very, very poor. Part of it stairs and is it true maybe but do you do what we probably don't realize is when you increase the plasma level using any d plus to begin with.

You will get a shift that shift take several hours it doesn't go directly and so but it will happen if you're using this cup subcube for example any plus directly.

Excuse me it won't also go in over several hour. So I'm not sure that's totally true, but here's the problem. We make and hold, we make the equivalent of the NAD.

Our stores are about 3,000 milligrams a day. So we try to maintain, when we're healthy, We don't need NADA. Well, stay, you get older, whatever. You may need more.

Obviously the mitochondria, it's needed for mitochondrial ATP exchange. The problem is you're using, you know, NR, which is part of the salvage mechanism.

There are three mechanisms for making NAD. The price handler, there's direct de novo synthesis, and there is a salvag, e which probably does the most of it.

NR does a very good job in the Salvage. I'm actually also a CMO of pretty much the number one NAD in the country. It's literally the best, it comes from Korea, and has only two components in it that are not, or contaminants I should say.

All the rest that we use in United States have nine to 11. Oh wow. Its a much better, its 30% more effective. Where can people find this by the way? They can find it.

The product is called Nadvit and I don't have problems sharing anything. You know me, I'm an open book. I know you call me that. And I will share that with you if you need to share with your folks out there.

And, uh, not if it's an amazing product. I actually just made the oral formula. If you notice any of the old formulas, you probably take them. There's two, three things in them, some NR, the NMM, but this product that I'm making has 13 because it hits all the pathways.

It will be out in two weeks. Wow. Is not good. The best, nothing. You want it and you want to give it to your clinics and stuff. And I make you and I will talk about, make sure you get it.

and whoever else is listening can get it. And by the way, folks, I don't have any interest in what I'm telling you. Yes, they pay me, paid. I am not saying I do not get paid, but I get payed more because I develop it, it's my IP that they get.

Which is fine, there are great guys and they are doing a great job. So here is my issue to your question, and I will answer your questions. When you do take a lot of NR, There is a potential for liver toxicity.

Yeah, takes a lots, But there is potential. When you have a lot of NR, you use up methyl groups. So if you someone who's a poor methylator to begin with has high homocysteine, we discussed, they're gonna get even higher homocistine.

And every point's pretty much that you're over 6.5, I've read in the past how true this is. I think it still is, it holds. It's no question it is a factor for heart disease by itself.

But over 6.5, pretty much for every point, you have six times more heart disease and stroke risk. So if you're using up even more of this, of your methyl groups, and you had that issue, when you can when have too much, it often doesn't hit the salvage pathway again, I'm not sure I am ready to be in that space.

I would rather use the oral form which has NR in it. Right. Um, but using an IV, is it a gimmick? Yes, it is faster. You're correct. It is less painful.

it does increase cellular levels faster, But I don't know over time just because you increase something in two seconds. Doesn't mean what happens five hours or 10 hours.

There's no study on that. So, um, so me, I'm still into the NAD. Would I throw it away and say, oh, It's not going to happen. I would never use it, Mitch.

No. I may look at it later on, but for now, I have such great results with this NAD that we use and with his new product that's we've made. It's just that good.

I would say always be cautious what you don't know enough about. And if I just said something that didn't make sense to you, like you've never heard, that that pathway uses methyl groups and hence the product I'm putting out has a methyl donor in it.

Yeah. You need that. So, and since there's so many people that have this MTHFR that has expressed itself with elevated homocysteines, you better think three times because you could fix one thing and you make another bad.

Make no, that make wouldn't make no sense. It is an independent risk factor. So with time, we'll know if, you know, with more research, right? Give it time.

It's not, We're not in a rush. We want to do things right. Especially if you got things that are already working, why reinvent the wheel? So Doc, one of the things you just mentioned is like, if don't know enough about something, that brings me to the next topic.

So we know about CBD. There's a lot of research on CBD, oral, topical, et cetera, there's lot FDA approved companies or big pharma companies that have synthetic versions of CBD for different illnesses.

There is a company that recently came out, they pride themselves as being the first sterile CBD for intravenous use. And they've created it to the pico molecule, which is smaller than the nano molecule.

To really get into the cell in different parts of the body, like the brain, et cetera. They have a group of oncologists that are actively utilizing it, and they're seeing some tremendous results.

Do you know anything about CBD being utilized intravinously? No, I've never used it intravenously. Of course I'm very aware of CBD patients take it and so forth.

Much like THC, CBD has some very positive things. It will lower interleukin 6 to a certain degree, tumor necrosis factor alpha, which are transcription factors for inflammation.

it does help people relax, help them sleep, you know. But they're the opposite side of the spectrum. I also know that, for example, cancer is fought in a T helper cell one state and actually use of large amounts or using if using one to twice a week, I don't care, using it ongoing, it actually can change that state.

and decrease the T cells and the t helper cells. Now I try to improve that situation when I have a cancer patient.

Closing Thoughts on Prevention, Purpose, and Great Medicine

How do I do it? I may use the old tagamates, I medidine in large doses, and they use rapamycin once a week. In other words, all do things to prove that I don't wanna use, why would I things that are counter balancing each other?

So again, it's not something I would say, would never use SAM, but it was something, like you and I agreed on earlier. Look, we have other things right now, Let's wait and see everyone's looking for the next gimmick and the thing which is okay sometimes are very good and sometimes me too and some times they're downright probably dangerous so.

I'm gonna hold on that and don't get me wrong i'm an innovator i use products i put together i made the form is a but i always have to understand the biochemistry of a perfectly.

Yep, pico scaler is very small. It's in billions. See, it's tiny, tiny something. And yes, we'll get into the cells. So does that mean it is going to do damage?

Does it mean as a toxic metal? Doesn't mean that it will displace something? It is gonna make them sluggish? Is it going turn down my immune system for these patients that require it really good?

I don't know. Until someone shows me that literature, I won't use it, but I'm not throwing it out. I just saying, caution, let's step close. Let's get the data.

In God we trust, everybody else produce data." Yeah, that's exactly good, I like that. So, Doc, the next thing here, and I want this to come from the heart.

Okay. And I'll want you to take the minute or two and let the world know What is the problem and what is potential solution for the problems with everything you do?

Okay, so let's do that. Thank you for asking. I think that's a good question. We have a major global health issue. The United States is way beyond the rest of the world when it comes to longevity.

If you look at the longevity figures, it's not good. And yet we're the most technologically advanced country in the world and yet we can't produce that why is that.

So are we approach medicine the wrong way have we really looked at prevention from really a healthy way we have really look at those cycles that you and i sam spoke about tonight and we've looked them scrap cycles have looked the mitochondria.

Have we looked at making sure that our biochemistry is imbalanced? Have you looked into foods we eat? have we look at the things that we've injected into our bodies?

Are we doing what it really takes? Using buzzwords like, let's eat cleaner, this type of thing. That just doesn't work. We really need to get a good handle on our Biochemistry.

we really needed to use things to make a difference. And the only way you're going to know Is by doing a good enough work up to be able to tell we've got to do we need to go back to the future if we go pack to future reinstate the concept that there's something about indigenous medicine there something a bad herbal medicine.

There's some thing about night nutrient therapy. That really really makes a difference that this is our cement this our basis of life. And then once we realize that, as practitioners, we'll be able to change the global problem of healthcare and we will be to give life to our patients, not just in the form of quantity, but the most important, is quality.

Amazing, amazing. Doc, last thing here, you know, one of my favorite podcasters, Stephen Barlet, with a diary of a CEO, he came out with these conversation cards.

So I want you to go ahead and open it up. Okay. Grab one from the middle. Read the question and answer it. OK, this is like a fun game. We're playing here.

Yeah, a little fun time here, right? Oh my gosh, one of the the cards. No. Where's the questions? How it works? Which one? You got you got the you get the Joker card.

Pick another one. Oh, I thought now I can answer whatever I. All right, all right. I felt I I though that was like weird. Is this a test for me? I'm going to have to take that one out, actually.

Right. Diary of a CEO. What was the most valuable lesson you learned the last year and why? Okay, so I've got to keep it to last years. Is that the idea?

I'm not allowed to go beyond it. Most valuable less than I learned from last here is that you have to take time to smell roses. You know, more workaholics Sam.

I am working harder now than at 75 than when I was 31. I recognize that I'm needed. I need to help. Um, I realized that. Need to start handing down the stuff that's in my head to others.

People say, look, Mitch, if you're not there, no one else is going to be able to do what you do. Yeah, there is. Uh, just need. To hand that down to someone else.

Have an amazing wife. Got. Eight children. My 10th grandchild on the way right now. There's something that you never ever can. take out of the medicine and your life space in that is you need to take care of yourself to be able to care about others.

I've learned that lesson and because I had a little bit of a scare this year which turned out to B nothing thank God and with that I realize how important it was to communicate with my kids my grandkids specially my wife and realize you have to laugh every day laugh.

It increases your immune system. I'm actually very dear friends with the people that did all the work on laughter therapy and then increases the immune systems for the next 12 hours in every area of the system and area.

And I realized that that's what I need to do. I like to stop and laugh. If I made a agreement with myself this year and I'm asked to lecture and do and teach constantly.

You know, I have a company that teaches doctors and am I allowed to say my website? Would that be all right? Oh, it's genmed.com G-H-E-N-med, all one word, G H E N M E D dot com.

But I, but I realized that I have to keep myself healthy. I've to think about it. And I had to create in my head that ongoing communication, just like anything else, you want something to be good, what the flowers to beat.

You have the water them, right? I'm going to water my relationships and there's no question. Look back at the Harvard's med study, the longest running study.

What was the one thing in common even after 70 years and it's still running. was your social interactions. Having things like this with amazing human beings, having a nice friend in you and over the years, these are the things sitting here with a community.

Community is so important. Yeah, that's it. That's what I learned. And Doc, is that where people could find you? The website that you provided? Yeah they can.

That's the best way they can contact me, easy to write me that way, and there's an info section there, it's called genmed.com, also for physicians and training and things of that nature.

And Doug, as we wrap up here, if there is someone that's listening or viewing the podcast that resonates with today's message, what is that one thing you can leave them with?

Well, the one to leave with in the IV space, I think you're asking? Yeah. Don't be afraid of it. If you really want to do what's best for the patient, which I thought we all did when we went to medical school.

We might have gone astray, we need to make money, need repay, whatever. But if you want really to be the best physician that you can be, not a good, a great physician, then take yourself three years, even while you're seeing patients, to incorporate one of the most important modalities there is for helping someone's Normal body mechanisms to work properly and that's IV therapy Reach out.

I'm here. There's other people Sam's here reach out and begin learning it properly do it Properly it will come back to you. It's like anything else what you give you get back ten times So give to your patients help them and you'll get that That's my word of the day doc.

it was a pleasure having you on a healthy point of view podcast Thank you my pleasure. Thank You. God bless you Thank Guys, you heard it from Dr. Mitch.

It's not about having a medical provider or being a provider who's good. Shoot for great. Find the greatness. And

the way that you get there, it's just not one thing.

Number one, understand the body, how Dr Mitch said. Go into the biochemistry of the Learn about the things that we were talking about, about The Crib Cycle.

Make that part of your medical practice. Find a medical provider, if you're a consumer, who understands these things. Guys, we all know that you have some kind of friend or family that can benefit off of today's podcast.