



Top Takeaways: #297 Chlorine vs. Salt Water vs. Ozone and Oxygen Swimming Pool Disinfection with Michael Geyer

1. One of the most common issues people face when in prolonged contact with pool water is various skin conditions.
2. Chlorine in pool water can also interfere in the production of thyroid hormones.
3. One of the issues with backyard pools is that there is no proper way to monitor the amount of chemicals added to the pool water.
4. Two ways chlorine and other pool chemicals can enter in the body is through skin pores, and through ingestion from accidental drinking of pool water while swimming.
5. Chemicals added to a pool will react with the water and overtime create a buildup of byproducts from the chemical reactions.
6. Michael stays away from any type of stabilized chlorine and instead uses calcium hypochlorite, a non-stabilized chlorine, with a byproduct of calcium.
7. Pets are more sensitive to chlorine and salt water pools, experiencing dry skin and GI issues with prolonged use.
8. Salt water pools may be easier to maintain but are not healthier than chlorinated pools, as chlorine is still used in them, the salt used in them turns into chlorine, and the salt used is not a healthy salt for the body to absorb.
9. Michael developed a hyper-dissolved oxygen system that injects dissolved oxygen into the water; raising the pools oxygen parts per million (PPM) from 7 or 8 PPM to anywhere from 10 to 30 PPM.
10. Michael has seen hundreds of people use this system to help treat many of their ailments, like asthma and arthritis, by absorbing the oxygen from the water into their body.
11. Many people have less oxygen in their tissues than they need, and require a way to absorb more oxygen.
12. Michael also uses an additional system that dissolves ozone in the water, which is stronger than chlorine at oxidizing things in water.
13. To balance PH levels in pool water, Michael uses CO₂, which turns into a light carbonic acid, and lowers the pools pH but doesn't lower its alkalinity.
14. You can learn more about Michael Geyer's Exceptional Water Systems products at www.exwsystems.com
15. To learn more about the technology behind the products go to www.purevtech.com

Wendy Myers:

Hello everyone. My name is Wendy Myers. Welcome to the Myers Detox podcast. You can learn all about about heavy metal detoxification on this podcast and also go see all the free content on my website, myersdetox.com. We have hundreds of podcasts. We're coming up on number 300 pretty soon. It's been just an unbelievable last six years of hosting this podcast and I just am so honored that you guys tune in every week to learn. All the content that I'm producing, it's really all for you guys, is to help you make healthier choices, make those distinctions, make all those small little choices every day that lead up to big changes. So thanks for tuning in.

Today, we have Michael Geyer on the show. He's going to be talking about providing healthier pool water because so many of us, including myself are going swimming in pools this summer. There's chlorine pools and saltwater pools and all kinds of different chemicals that are used in these types of pools, so we're going to talk about all of those chemicals, the pros and cons, and the healthiest pool system imaginable that oxygenates your body, ozonates your body, water so clean that you can drink. Can you even imagine drinking your pool water? I mean it is possible, so we're going to be talking about that. We'll be talking about how chlorine and bromine, that's used in a lot of jacuzzi systems, interferes in thyroid function. It actually blocks iodine uptake in your thyroid and prevents thyroid hormone production. So if your thyroid isn't really working so hot, that might be a clue there for you.

But not only that, but we shower every day in water that's fluoridated and chlorinated, and there's chloramines added to it by municipal water sources to kill all the bacteria and parasites and all the cooties in the water. And that's great, but there's a health consequence to that. So we're going to be discussing all of that on today's show. So many of you guys listening are concerned about heavy metals, concerned about the levels of metals in your body.

That's why I created my heavy metals quiz, takes two minutes to take it at heavymetalsquiz.com. And after you take this quiz and answer these lifestyle questions, you'll get a video series, a free educational video series that will clue you into your relative levels of heavy metals you have in your body. And what are the next steps to take? A lot of people know we have heavy metals in our body, but what do you do next? What's the first steps? So I tell you what those next steps are in this free video series, so go take it at heavymetalsquiz.com.

Our guest today is Michael Geyer. He is the president of Exceptional Water Systems and Pure Vision Technologies. He's a visionary, believer, and teacher. Michael Geyer is all of these things and so much more. As President of two companies, Exceptional Water Systems and Pure Vision Technologies, his vision, belief in teaching is to continually improve water quality for all aspects of life. Michael has dedicated his time and energy in researching water down to the quantum physics level by working with

scientists, biochemical engineers, water treatment specialists, and doctors from all over the country.

Michael started his journey in 2005, where he began his pursuit and passion for water for a local commercial pool and spa distributor. During that time, he learned that fully understanding water was the key to success in the aquatics industry. And after a few short years, he became a certified pool instructor, having the opportunity to share his knowledge about water quality, hydraulic safety, and a little influence from his friends and family. All of this drove Michael to start Exceptional Water Systems.

After two short years of special research and development, Michael then founded Pure Vision Technologies, a company devoted to manufacturing and developing new technologies to deliver the highest level of water quality possible by utilizing only natural elements like oxygen, ozone, and ultraviolet. His intentions were to utilize natural elements for water treatment to provide not only a safe environment while in and around aquatic environments, but also after the water has been used.

Prior to founding these two groundbreaking companies, Michael was a proud member of the armed services where he served in the US Air Force. And after his enlistment was up, he went on to graduate from the University of Phoenix with a degree in marketing. Michael resides in Mesa, Arizona with his wife of 10 years, Ali, and his two daughters, Melissa and Victoria, along with their six grandchildren. You can learn more about Michael and his amazing pool filtration systems at exwsystems.com. Michael, thank you so much for coming on the show.

Michael Geyer: Thank you, Wendy, for having me. I appreciate that.

Wendy Myers: So it's awesome that we're going to be here talking about swimming pools and some of the chemicals in swimming pools and what you want to be actually using to disinfect your pool and when you have your own pool. So let's first start off a little bit about what are some of the health issues that can be caused by swimming in your typical chlorinated pool? What are the problems with the pools today?

Michael Geyer: Well, one of the main problems is people have a lot of skin issues. I think that's probably one of the most common things that I see from people who've been swimming in pools for years, Olympians, any type of professional swimmers, and so for swim school instructors. They just develop these skin rashes and so forth, if they have like eczema or psoriasis, other just like... I know a lot of people have these sensitivities to food allergies and so forth, where for some reason being in chlorinated water, it just kind of makes it worse.

I've got six grandchildren, and probably half of them have skin issues with chlorinated water, so they cannot swim in a swimming pool. Otherwise, they'd break out in all these rashes and so forth. But that seems to be one

of the most common things that I see in swimming normal chlorinated water and so forth.

Wendy Myers: Yeah, and definitely people have thyroid issues as well, whereby the chlorine interferes in the iodine uptake in the thyroid gland and interference in production of thyroid hormone. So that's something also to be aware of if you're swimming in a pool on a regular basis.

Michael Geyer: Right. And The other thing is too is the amount of chlorine that's used in a pool. So it's from day to day because most household pools do not have any type of management on there to say I have one part, two parts per million, three parts. Normally, like let's just take for instance a saltwater pool. It's put it at a percentage. So you're at 10%, 20% 50%, 100%. And it just continuously feeds all day long or as long as the pump is running. But there's no necessarily, there's not a monitor on there to say, "Okay, stop at this point."

Whereas on a commercial pool, it says, "Feed up to X amount of parts per million," whether they're using a metering like a ORP or a PPM probe, but they have some sort of device that normally monitors that backyard pool. You don't have any of that. So you don't know whether you're going to swim in there, whether there's one part per million, or whether there's going to be 10 parts per million in there. And does that make a big difference on you? Absolutely. I can't hardly stand being in a chlorinated body of water anymore. I mean I almost feel sick from being in the water, so I know the difference when you definitely when you get into that type of body of water.

Wendy Myers: Yeah, chlorinated pools, it just it's so disgusting swimming in them, and especially if they're over-chlorinated, and you just reek of chlorine afterwards. And not only that, but what it's doing to your skin microbiome, and your gut microbiome when you're swallowing that water. I mean, there's a lot of health consequences that people perhaps aren't really thinking about when it's summertime, and they're going and swimming in their pool.

Michael Geyer: Right. The other thing is too is most people don't understand is that your skin, being the largest organ on your body, your pores are about 20 microns. Well, chlorine is going to absorb through your skin, Like it or not, it does absorb through your skin, whether you take a shower, when you're getting in the pool. So the longer that you sit in that pool, the more that you're going to absorb that. But that's just one aspect of it. It's not just the chlorine. It's the amount of chemicals that you use in the water as well.

So you take a typical pool, and it's a very simple analogy that I use is, okay, so let's just say you put fresh water in there. After a month, would you drink that water? Most people would say, "No," but you're going to swim in it. And that's okay. You think you're not going to least drink some of that water or your kids or your family and friends. You think they're going to drink? Absolutely, they are. There's a certain percentage of water

that every swimmer actually is going to encounter drinking at some point in time, being in the water. So if you're not comfortable with drinking it, but you're okay with swimming in it, I don't get that. I could actually drink my water.

Wendy Myers: Yeah. And also, when you think about it, some of this pool water is like five years old. It's been in there chlorinated over and over and over. Because they just, so many people I've talked to just... There's no reason to fill up that 10,000 gallons again because you just put chlorine in it.

Michael Geyer: Yeah, exactly. And it's like what's the factor to know when it's time to get rid of your water? Well, what's really neat is if you're never adding chlorine or if you go with a system where it's essentially called chlorine-free, well, you're not really adding much chemicals to it and managing what they call the TDS levels, which is total dissolved solids. That's ultimately your factor.

Because if you look at drinking water, well, what do they do to clean drinking water. So a lot of people like to drink RO water. So they'll run it through an RO system. Well, that's good and bad. Same with the swimming pool.

Wendy Myers: Reverse osmosis. That's reverse osmosis.

Michael Geyer: Exactly, exactly, no different from what you would treat your water in your pool than the way you would drink your water. So they remove all the good stuff, and they remove all the bad stuff. So they bring that TDS level down. So let's just say you're starting at, from the tap water, you might start at 500, anywhere to 1000, depending on what city you're getting it from. So you're removing all of the unknowns. That's your pharmaceuticals, your arsenic, your just numerous different lead, and so forth, pharmaceuticals, all these other things from the water. So you're wanting to take those out so that your water is safer.

But at the same time, you're also taking out the alkalinity, you're taking out the calcium, And you're also removing the oxygen from the water. So if you've ever measured RO water, you'll see that your oxygen level, the dissolved oxygen level is down to like maybe two. Whereas, normal water is at about eight, seven or eight roughly. So not only are you removing all the good things from the water, but now you're going to drink it. And I'm sure you probably heard that before. So now the water actually attacks your bones and your joints and everything else in your body.

Well, it's no different from your swimming pool. So if the water is that aggressive, which it is, now it's going to be acidic. So now it's going to start eating away your plaster and so forth and different things around your pool. So it wants that, so it needs it and it becomes acidic. So it's not good to bathe in it, it's not good to drink it, and it's not good to have in that body of water.

Wendy Myers: Yeah, then it's demineralizing you also.

Michael Geyer: Absolutely, absolutely.

Wendy Myers: And so are there any other concerns with other chemicals that people tend to put on their pool water?

Michael Geyer: Oh, there's such a long list. I mean you use so many different things in there. I mean there's a chemical reaction with anything that you do to your water. You're going to have some sort of chemical reaction in there, whether you're doing an electrolysis process or you're doing... We talked about copper before. People like to use those copper ionization or copper sulfate in there. And I've been told even by biochemists, copper sulfate is just as bad as mercury in the water. So you would put that in your swimming pool? No, I think not.

Wendy Myers: And that's used for algae.

Michael Geyer: Yes.

Wendy Myers: So people go into their pool supply store, and they will say, "Yeah, well, I have some algae. I have some green stuff growing in my pool. Oh, my God, help." And then, they'll give them a big old bottle of copper liquid and just pour half that in your swimming pool. And then, you're swimming in copper. And so any other... I know there's tons of chemicals that can be used for various reasons. Can you kind of list those and what some of the issues are with those?

Michael Geyer: Well, every chemical has its byproduct. So if you went down the list, you got sodium hypochlorite. When you use sodium hypochlorite, your byproduct is, technically, it's partial salt. So you're left with extra TDS in the water. The TDS builds up over time. This is what we were talking about. After so many years or even after short months in there, the more chlorine you use and the more that people use it, you're going to have your pH rises, so you're going to use more acid, which then drops your alkalinity. It also drops your pH. Then, you're adding more sodium bicarbonate in there, which is also adding to TDS and so forth.

But over time, you get all this buildup of all these other byproducts in there. You also get from like trichlor, which is a very common tablet used in swimming pools and has what's called in there stabilizer or conditioner. And the only purpose of that particular stabilizer is to keep the sun from burning the chlorine off in the water. And people have been, they've got so accustomed to, "I got to have one part per million. I got to have two parts per million," and so forth. You technically don't have to have any parts per million in the water. The water will actually tell you what it needs. It speaks to you, how do I say it, more or less visually. So it's watching you. It sees you. You see it. You know it's changing colors and so forth. That is the way that I balance my water. I look at it every day. I hardly ever actually measure it because I know what my water is doing.

But those byproduct there, the stabilizer, it doesn't do any good for the water really. It's only good for your pocketbook. And that's to keep chlorine in the water. Buildup over time, it prevents the chlorine from actually doing its job, which is number one is disinfecting. Number two is oxidizing. So if you have a very good filtration system in there, and you're pulling out the majority of the stuff, the more power that you're chlorine has to do what it was meant to do, which is disinfecting. But nevertheless, as you're using these tabs and you kind of just throw them in, that's what everybody likes to do because it's easy. And they have less issues with it.

But it's also acidic, so it pushes your water to the acidic side because the pH on those tabs is about four and a half, which is extremely low. And most people are going, "Well, when you start to have to balance a body of water, people get upset and they're like, well, I never had to do this much stuff to it before". And it's like that's because your water was acidic, and the pH doesn't rise very fast in acidic water. So that's one of the typical things that they'll run into.

The other thing, you can also use in the water is what they call dichlor. It's basically the same as trichlor. 50% of the tablet or 50% of that product is going to have that same chemical in there. So I always stay away from any type of stabilized chlorine at all if you're going to actually end up using it. My product of choice would be calcium hypochlorite, which is a non-stabilized chlorine. And your byproduct is calcium, which water likes calcium. And actually, that's probably one of the only elements that water actually wants, is calcium, so your buildup in there. But, obviously, you want to still balance it so it doesn't get too high. But it's still manageable.

Wendy Myers: Yeah. So if you have a toxic chlorine pool, that's probably your best option if you're not going to switch it out to a different type of filtration system.

Michael Geyer: Yes.

Wendy Myers: So let's talk about bromine. So I used to have a jacuzzi, and there was an ozonator in there. It was sold to me like, "This is the cutting-edge disinfectant doohickey, whatever. But I also had to put bromine in it, which is the same thing pretty much as chlorine. So it's not better than chlorine. It's still, it's a halide, bromine, fluoride, and chlorine, all halogens that interfere in thyroid functioning. So same stuff, different story.

Michael Geyer: Yep. Yep. And honestly, I couldn't give you a whole lot on bromine because I don't use bromine. And I avoid it. There's there's a lot of unknowns to bromine for me. When I look for answers and certain things, even some chemists and so forth can't really answer the question. So if I'm going to professionals that are actual chemists and they can't answer those questions, it's like I just prefer not using that. So there's too many unknowns.

Well, it's like chloramines. Chloramines is what you smell when you smell chlorinated pool and you go, "Oh, my gosh. They have so much chlorine in here." No, that's the bad stuff. That's the aftermath. So you get that smell of chloramines in there. Well, bromamines are equally bad, but you can't smell them. So I'd rather know when they're present and be able to do something about it, rather than not know that they're there when they're equally as bad and you can't smell them.

Wendy Myers: Oh, great because I had that jacuzzi for about 10 years, so thanks for that info. So are there any concerns with chlorine pools and pets? Can you talk a little about that?

Michael Geyer: Yes, actually, pets are more sensitive to chlorinated water than we are as humans. Their skin is more sensitive to it. So the higher amounts of chlorine in there can really affect their skin. It can actually dry it out quicker. Kind of hard for them, because depending on how much fur they have on them and so forth, will depend on how quickly it or how much it penetrates and stays in there, and the chlorine can dry out their skin.

The other thing is, is depending on what type of chlorine you're using in there, and once again, going back to the evil TDS, how much TDS? How much time has it been? I mean, simple question, would you drink the water? Or would you let your pet drink it? And that's okay for your pet to drink it, but not you. So they're equally susceptible to all of that and actually more so than we are. Some people think, "Oh, yeah, he's fine drinking that water." It's not fine for them. It's equally bad for them in their GI tract and all of that.

And then of course, the salt water, same thing. Depending on how much salt is in there and so forth, depending on how much chlorine and all of that, it can dry out their skin a lot quicker. It can also do... You know how you say you have blond hair and you talked about having green hair, can also change the coat on your dog and change it over time as well if they're using it enough. So it can have those effects on them as well.

Wendy Myers: Yeah, I was talking to Michael earlier about how... Because I have a pool also and when I first was getting in, my hair was turning green, so love that side effect. But I'm in a rental, so I can't go change the the pool filtration system.

Michael Geyer: Right.

Wendy Myers: But I wanted to do this podcast because I have a lot of people listening that are concerned about their pool, concerned about the issues with the, "What do I do? What's the correct thing to do?" But a lot of people have saltwater pools and think that those are perfectly safe, that those are kind of the lesser evil. So let's talk a little about some of the problems, like pros and cons with saltwater pools.

Michael Geyer: Pros and cons. I suppose one of the things is with saltwater pools, people like them because they're a lot easier to manage and so forth. They kind of mask some things in there. Most people think that you're actually not using chlorine, when actually it's just making chlorine. It's a weaker amount of chlorine. So if you took a bottle of, say liquid chlorine, you should supposed to have about 12% in there. When you're making chlorine from saltwater pool, you make about 2%. So it takes a lot more to actually equal up to an actual bottle of chlorine. But nevertheless, you're still getting the TDS in there.

Side effects of having a saltwater pool is if you have nice rocks and nice landscaping, salt is still salt. We still use it on our streets and so forth in the winter and Minnesota and that, where it eats up the concrete and so forth. It's the same salt, so you're going to run into those same issues.

Some manufacturers, depending on what type of equipment you have, they will not warranty like their heaters and such if you have saltwater pools, just because they take more of a toll on there. And if it's poorly-managed water, which a lot of times they are poorly managed, then the whole saturation index... And the saturation index is an indicator showing whether your water is corrosive or it's scaling. And if you're not following that index very closely, it can be even more aggressive because you've added yet another aggressive element to the water. So certain things, it will have an effect.

Now, having a normal chlorinated pool, most people like the feel of the salt water on their skin. So they're like, "Oh yeah, it's softer." And is it? Yeah, it is softer on the skin. But if you want a saltwater pool without the salt cells, well, throw some salt in your water, and you've got a saltwater pool. It's no different.

Wendy Myers: So if you have a chlorine pool, you can still throw salt water in it, right?

Michael Geyer: Yes, yes.

Wendy Myers: Okay, yeah. Because I've been to pool centers and asphyxiating in the process, where I feel like I'm choking because you smell this chlorine. I don't know how the people work in there. But I was looking at the salt water, having a conversation, like grilling the pool lady mercilessly, and I learned that the salt water just turns into chlorine. I'm like how is this any better? And it's not like sea salt. It's not like you're pouring this wonderful magnesium flakes into the pool and getting mineralized while you're swimming. No, it's almost pretty much the same as a chlorinated pool. Correct?

Michael Geyer: Correct. Correct. And you did mention that. It's different salt. It's not the same salt.

Wendy Myers: Yeah, it's just a different salt.

Michael Geyer: Is it in the ocean? No, it's not the same salt.

Wendy Myers: No, you're not swimming in the ocean when you're going in the saltwater pool.

Michael Geyer: No.

Wendy Myers: And so what do we do? So anyone that's swimming every day in their pool or their saltwater pool, thinking that it's healthier for them when we've established that it's not, what is the alternative? What are some of the cutting-edge filtration systems that you are using with their clients so people can enjoy their pool, and still maintain their health, not fighting this uphill battle because they're just enjoying their pool?

Michael Geyer: One of the things we developed over the last seven years is hyper-dissolved oxygen systems. And what it does is it actually feeds in dissolved oxygen into the water. So like I was mentioning earlier, your water typically starts off at about seven or eight parts per million of dissolved oxygen. That's just normal, depending on atmosphere, temperature, and so forth. But what we do is we feed in pure oxygen. We use a medical-grade concentrator for that, and we feed it into the water. We raise that level anywhere from 10 parts all the way up to 30, almost 40 parts per million of oxygen in there. The cool part about it, it stays in there for literally weeks and days at a time. So some of the benefits behind that, it's very similar to being in a hyperbaric oxygen chamber.

Now, they're not going to say any, give you any medical claims on that. But I can say from being in this for the last seven years, I have seen hundreds of people completely change their lives. And I'll tell you, there's nothing more rewarding than seeing a person that's totally suffering from being in water to totally energized and happy and completely changing the way they feel, their health, and everything else that goes with that. And so what we found with utilizing this particular water, you end up with literally billions upon billions of ultra-fine bubbles.

Now, these bubbles are less than a... They're about a 10th of a micron. And you think about how small that is. Bacteria is about one micron, where a 10th the size of bacteria is what we're putting in the water. And then, you've got literally millions of these. So people who suffer from psoriasis, eczema, asthma... Asthma was one of the big ones from even some swim schools and so forth, where we've seen different athletes and so forth. They have their inhalers they have to use all the time. No more inhalers. They didn't have to have that anymore. They had no more rashes and so forth, getting out of the water.

As a matter of fact, none of them could even smell the chlorine in the water anymore. So a lot of them thought that they actually quit using chlorine. It's like no. For commercial pools, you still use chlorine in there. You have to maintain at least one part per million, so we do that. But the smell of it, the softness. One thing, going back, well, a lot of people want

saltwater systems because it's soft on their skin. Well, this gives you that same feeling, super soft, silky skin, except in a different sense, it's more healthy for you. Because now, just as I was saying before, most of those chemicals and stuff are being absorbed into your body.

Well, guess what? The oxygen, because of the molecular weight of it and so forth, you are absorbing that into your body as well. So your body and your skin and so forth is absorbing that. I've seen swim school teachers, directors, because they're in there hours upon hours a day, where it's healed their scars.

So one of our first swim school instructors we put, after six weeks, she had surgery on her foot she had there for a year. And after six weeks, she was so ecstatic. She calls me up and she's like, "Oh, my gosh, you're not going to believe this." And I'm thinking that she's calling up with a problem or something. And I'm like, "Well, what is it?" And she's like, "Well, I had a scar on my foot." And she's like, she goes, "I called it my [frankintoe 00:30:20]." And she goes, "It's completely gone." I'm like, "Wow, did you get a picture?" And she's like, "No. Why would I take a picture of it?" I'm like, "Fair enough." But nonetheless, it's a funny, funny story, but I wish I would have gotten a picture before. But hindsight, I had no idea that it was going to do such a thing.

So there's different people with different issues. We've had people with asthma, I already said that, also arthritis. It's great for people with arthritis. I've had numerous people come in, and we have a spa at our facility. We allow friends and family and customers and so forth to come over and sit in the spa and enjoy that water without any chlorine or any chemicals at all in the water, and just enjoy it for an hour and do a session. So if they're suffering from back issues and so forth, any joint pains and injuries and that sort of thing, I mean they come out a totally different person. But there's just... That's one part of what we do, and that's just oxygen. So you can add that to any commercial pool. You can add it to a backyard pool and so forth. So that's kind of like the stepping stone, the basic baseline.

Wendy Myers: And so that's like the hyper... It's called hyper-dissolved oxygen. And that's kind of like turning your pool into a nano-jacuzzi to a certain degree.

Michael Geyer: Exactly, like a hyperbaric oxygen chamber.

Wendy Myers: Yeah.

Michael Geyer: Yes.

Wendy Myers: So a big problem that people have is they have less oxygen in their tissues because we just have less in our atmosphere. We have a lot of carbon monoxide and heavy metals and toxins and all this garbage we're breathing in. There's just less oxygen for various reasons, and so people

need ways that they increase the levels of oxygen in their tissues. And this is a great way to do that.

Michael Geyer: Absolutely, absolutely. And it's funny you say that too. So it's just like the scars, and I learned this from a dermatologist, was he was saying your body is like a... You have a hierarchy that goes on there. So as you intake oxygen, the first thing that gets the oxygen is your heart. The next thing is goes to your brain. And then, it's distributed through the rest of your body to wherever it needs, to inflammation and so forth. And most of us actually have a lot of inflammation going on and swelling inside of our bodies. So your skin is the last to get it.

And that's why it was kind of interesting when we started talking about how this actually healed that lady's scars. I was like, "That's amazing." He says, "Well, it's pretty simple. That's the last thing that your body is going to send that oxygen to, so it's going to take a long time for those scars to heal because it's the last on the list." It's just enough to get rid of the cut or whatever it is or the sore, but not enough to finish the job. So yeah, exactly what you said. That's good.

Wendy Myers: And then, you use ozone water treatments also, correct? Does that combine with the hyper-dissolved oxygen? Is that kind of like in the same system?

Michael Geyer: Yes, actually. So that's an add-on to there. So depending on the size of the body of water, you can go from anything from one gram an hour unit all the way up to 30 grams an hour if you're going to a large body of water, but we use the same system. And what we find with by dissolving the ozone in there, you get dissolved oxygen and you get the dissolved ozone. So when ozone is done doing its job, it leaves behind the byproduct of oxygen, which is great byproduct for us anyways. And because ozone is 20 to 3000 times stronger than chlorine, it does a much better job of oxidizing things in the water. But yes, we do add in the ozone into the mix as well.

Wendy Myers: And that's what kills the bacteria and the parasites and the cooties and everything else that's in the water, correct?

Michael Geyer: Correct.

Wendy Myers: And what about urine? What's neutralizing kitty urine here?

Michael Geyer: The ozone will knock all of that out. Yeah. When you think about chlorine, chlorine actually is somewhat of a weak oxidizer. It's done its job for years. And there's no, how do I say it, denying that. It's come around, it's been in the industry, it's used for a lot of different things, and it's brought us to a whole new level. But now, we're finding out there's a lot of side effects and too much and too little and not using it right and off-gassing and chloramines and all of these other byproducts to it.

Ozone, and you know this very well I know from the podcast and so forth, is how do these other doctors and so forth, they use it for healing the human body and so forth. I look at water as a living, breathing thing. And if you treat it right, it will treat you right. So you have to set it free. A body of water to me, just any swimming pool, I look at that as a caged animal. You're keeping this water here, you're holding it hostage, and all you're doing is throwing all these chemicals at it daily, weekly, whatever, and you expect it to do something good for you. How is that even possible if you don't even trust to drink it, but yet you want to swim in it?

So my philosophy is, you know what, treat it like you would treat anything else. Well, I shouldn't say that. I'll go lightly on that. Anything that you love in life, and if you treat it that way, well, guess what? We use our swimming pools and so forth. I can actually feed my plants with it. I can definitely let my whole family and everybody swim in it. If they drink it, they're going to be perfectly fine. There's not going to be any side effects or anything from drinking that water. My plants grow. We use it in agriculture. We get three to four times larger plants when we feed it with this oxygen, water, and so forth. And there's a reason behind that. It's because of the amount of oxygen. I can talk to you a little bit about that.

But the extra oxygen is super healthy for the plants. You can actually give your dog a bath with the water. I hook up a hose to my system. When my pool is running, I can water my grass, I can water my plants, I can wash my dog. There's so many different things that I can do with it. It's super beneficial and it's super healthy for just about anything it touches.

As a matter of fact, one of the things is the health department is starting to put restrictions on wastewater. So I know in California, they're saying, "Okay, all these fires and a lot of things." And after you've been treating your pool for a long period of time, they don't want your pool water. So if the wastewater department doesn't want your pool water and you're okay with swimming in it, shouldn't there be an issue there? Shouldn't there be like a red flag that comes up and says, "Wait a minute. What do you mean you don't want my water? What's so bad about it?" Well, most people don't understand water in general. So that's why they're so oblivious to what's actually lurking in their water.

Wendy Myers: Yeah. And so let's talk about carbon dioxide. How does that play into your filtration system? And what component is that? What does it do?

Michael Geyer: CO₂. So we use CO₂ to balance our pH. So one thing is most people actually use, what they call, muriatic acid to balance the pH. So as your pH rises, they'll add some acid to the pool. One thing I never understood was it's a vicious cycle that you create when you use acid. So every time that you add acid, it lowers your pH. It also brings down your alkalinity. Well, alkalinity is your buffer for your pH to keep your pH in balance. It also keeps your water on the alkaline side. So as your alkalinity drops, your water becomes more acidic, so it becomes aggressive. So every

time you add acid, you drop your pH down, you also kill your alkalinity. And over time, you have to add in sodium bicarbonate.

Well, when you add sodium bicarbonate to the water, it's baking soda. You add the sodium bicarbonate to the water, it raises your pH, it raises your alkalinity. So now, you're caught putting in more acid to bring down the pH, which then also lowers your alkalinity again. So I'm like, that doesn't make sense to me. It's a vicious cycle. But of course, everybody uses it. And why? Because they get to spend more. It's going to cost you more to manage your pool like that. And that's just an ongoing thing, and everybody does it.

CO₂, on the other hand, when it's added to water, it forms what they call a light carbonic acid. This acid actually lowers the pH, but it does not touch the alkalinity. The alkalinity will rise naturally based on how much carbon is in the water. So as that alkalinity starts to rise, you're not going to use a whole lot. For our system, it's 100% efficient. So when you feed it through at the right flow rates and everything, 100% of whatever you're dissolving in there gets used in the water, so it brings down the pH relatively quick. But there's no TDS to it either. There's no byproducts.

So once I feed it into the water, I'm not adding any TDS to the water, I'm not adding any foreign chemicals or anything else to it, perfectly safe for my family to drink the water right out of the outlet of the deal. We use that for drinking sodas. It's the same same type of CO₂ when you have your beverages and so forth. So it's super safe to use. And you're not going to use a whole lot of it, depending on, well, the size of your pool. Obviously, it's relative to how big your pool is. But it's been great to use. And that's what we use on a lot of our chlorine-free systems, is CO₂.

Wendy Myers: That just makes so much more sense. All of what you're saying makes so much sense. Why aren't more people kind of clued into this? Why aren't more pool systems and pool guys that come and maintain your pool, why don't more people know about this?

Michael Geyer: Because it's foreign. It's no different from... When I started in this industry, I could not get answers for chemistry in the industry. I had to go outside the industry. I had to go to chemists, I had to go to scientists, biochemists, I had to find a lot of the answers to what I was looking for outside because there's a lot of fallacies in the industry. And people just... It's just, "Well, that's what Bob always did for the last 20 years. And before him, Charlie did the same thing. And that's what we know works." And that's what they stay with. And the other thing is, is a lot of people, and I hate to say it like that, but it's the money. It creates that residual so that you can continue buying more and more products over time. And it just drives me nuts. Because to me, it's not fair for the consumer, it's not fair for my family, and no different from what I said.

One thing that really, that I try to separate myself from is like, okay, what would it take for me to get into that body of water? Would I get into a

swimming pool, a normal swimming pool? Absolutely not, no way. And I let my family know that, and it's up to them whether they're going to do it or not. But I'm absolutely not going to say, "Yeah, go ahead. Go for it." Because I know all the bad things about it. So what's different? What do I need to change so that I can say, "Yes, I would get in that body of water and this is why," so I have specific answers as to why I would get into that body of water? So any of the water that we create, absolutely, I would get in there.

We did a system over in California. It was probably one of the most beautiful systems we've ever done. His pool water was cleaner than his drinking water. And he had a drinking water system. Yes. It was turbidity in his water, bottomed out my meter. It was at .01. And his drinking water was at .02. So his drinking water still had more particulates in it in a closed-loop system than our open-loop system.

Wendy Myers: Love it.

Michael Geyer: Yeah.

Wendy Myers: Are you one of the only people that, you developed this system? Are there other people that have the system? How hard is it to get this type of system in your home and maybe convert your pool?

Michael Geyer: We actually do systems. We have different contractors all through the US. If you've got a good pool contractor, we have people from all the way from Washington to California, Florida, Texas. So we got contractors all over that are familiar with our system that have done installs and so forth. But you can take a new system. You can do it with a retrofit into an old system. It just depends on what level of quality you're looking for, so you can go from mild and you can get all the way down to drinking water quality.

Wendy Myers: Yeah. And so, say if you did like a basic system on a 10,000-gallon pool for instance, what would something like that cost?

Michael Geyer: For a basic system, if you're just going to do like an Aqua Gen or an Aqua Fusion system, it'd be about \$7500 for that system. And then, as you add in, if you wanted to add CO2 or ozone to the mix, depending on the size of the ozone generator and what ozone generator you're going to use, it can add a few thousand dollars more to the system.

Wendy Myers: Now, that's not too bad. I mean, if you live in your home and you have all your family members and your pets and everyone's swimming in the pool and using it for three to six months out of the year or longer, depending on where you are, I mean, there's no price you can put on your health. And we know that the chlorine and bromine and other things used in pools and jacuzzis, absolutely 100% interfere in thyroid functioning. And I think because chlorine and fluoride is also added to tap water, at least here in the US, and copper can be added also, that's one of the reasons

thyroid medications were the number one prescribed medications in the United States and around the world also. But it just caught... Thyroid disorder is so prevalent, and it's the water. The water that we're showering in, that most people are drinking improperly-filtered water, and the water they're swimming in is impacting their health in a dramatic way.

Michael Geyer: Absolutely. Absolutely. And we talk about the oxygen in the water as well. One really neat thing is I've had children with autism in the water. And for whatever reason, I'm not really too familiar with the autism as far as why it actually takes place and so forth but I do see that more and more that more and more kids are coming up with autism. They actually respond really well with the water. I can't tell you as far as why they do. But the mothers of those children, they're just like, "Oh, my gosh. My son is so much more calm. He has a great day for the next 24 hours after being in the water. He's a different kid to be around." Can't answer that, why that is. But we're doing other studies with doctors right now as to the percentage of oxygen that actually enters the body and what the benefits are behind that, so that study will be coming out. I'd love to do a podcast with you on that when the time comes.

Wendy Myers: Yeah for sure.

Michael Geyer: It's going to be really amazing.

Wendy Myers: Yeah. So tell us where can we learn more about your pool, and if interested, get this pool installed in your backyard pool.

Michael Geyer: You can go to our website. It's <http://www.exwsystems.com>. We've got pretty much everything on that website. We also have Pure Vision Technologies. It's purevtech.com. And that's just the specific products to that. Exceptional Water Systems, we have all sorts of different chemical controllers and all this other fun stuff in there. But Pure Vision Technologies is just about the technology itself.

Wendy Myers: Well, Michael, thanks so much for coming on the show and enlightening us on the do's and don'ts of pool filtration and sterilization. There's a lot more to it than meets the eye, so thanks for coming on and enlightening us.

Michael Geyer: Absolutely. Thanks for having me, Wendy. Appreciate it.

Wendy Myers: And everyone, thanks for tuning in every week to the Myers Detox podcast, where we explore all types of topics related to heavy metal and chemical toxicity and detoxification and all types of topics related to alternative health. So thanks for tuning in every week. It's my pleasure to serve you to give you all this information so you can make better choices. Thanks for tuning in. I'll talk to you guys next week.