Introduction to Lynn Patrick

Welcome to this episode of the Mycotoxins and Chronic Illness Summit. I'm so excited to have with me today, Doctor Lynn. She is a pioneer in environmental medicine.

So this is a big treat. You're going to really love this interview. Lynn, I'm going to have you start by introducing yourself to our audience. Sure. Just briefly.

My name is Lynn Patrick. I'm a naturopathic physician. I specialize in environmental medicine. I was in clinical practice for about 30 years. I'm no longer in clinical practice.

I spend my time, creating education for physicians. But I'm so happy to be here because I love educating, everyone, especially health care consumers. I have also had a history in, working in hepatology.

So liver disease and, I also talk about metal toxicity when I teach about environmental medicine. But the broad range of subjects that include all of the toxicants that we're exposed to on a daily basis.

So I think that's that will suffice for our conversation today. Thank you for the intro. Thank you. And and, Lynn, you do teach doctors a fair bit. So tell tell our audience, especially the doctor, about the I.

I am part of the MI which stands for environmental medicine education International. The MI Global project, which is a project that offers postgraduate education to clinicians in the field of environmental medicine.

So we have a yearlong clinical training program that entails monthly grand rounds meetings and, hundreds of hours of online education to help physicians, literally make the leap into environmental medicine so that they can feel confident in, addressing that.

And once the the docs go through the program and they take a final exam and they're certified, they end up being on our website, which is Mi global.com, where health care, consumers, patients can find them.

That's very, very important work because we're not taught this. We're not taught environmental medicine in general. Medical school not in not little bit in not your path of medical school.

But but not not what we need to be out there in the trenches, working with patients who are, who are sick, from the toxicity. So.

Environmental Medicine Training for Clinicians

Right. Historically, toxicology, which is the closest specialty to environmental medicine, was created to deal with, factory workers or, people who are occupationally exposed to toxins or, or people outside of children and adults outside of that occupational exposure, who were poisoned with large amounts of a substance, you know, accidentally or on purpose.

What we deal with now, today in our clinical practices is, you know, sometimes we deal with that. We have occupational exposed patients, but for the most part, it's people who've been exposed to air, water and food toxicants throughout their lifetimes and have a body burden that is greater than their capacity to eliminate.

So, and we're all pretty much in that boat, right point. I fully agree. When will you tell the audience the difference between the toxic and and a toxin?

Sure. It's just a definition. So toxicant is just a way of defining a non biological toxin. So for example, we've got

pesticides that are synthetically produced that are not manufactured by nature.

We call them toxicants. There are other chemicals like PCBs, polychlorinated biphenyls or hornets that are now a problem, for, drinking water contamination.

And those are called toxicants. No toxins are biologic. So mold toxins, which we are also a lot of us are exposed to. Those occur in nature doesn't mean they're good for us, but they they are found naturally.

And so I'll sometimes go back and forth between those two terms, depending on what you know, the origin of the of the problem. Thank you. So we have our organs of detoxification, our our liver, our kidneys, our gut, our skin.

And oftentimes people might say or ask me, you know, I have my body is equipped to detoxify, so why do I need to detox? Or why do I have a load the tie in my system?

Tell us about that. So we are all individuals. This is not a commonly acknowledged concept, but every human being is an individual where individuals genetically and we're individuals because literally every one of us has been exposed to a different combination of toxicants throughout our lifetimes based on where we grew up, where we were born.

The, toxin load of our mothers, which is sometimes passed on to us in utero, and jobs that we've had that may have exposed us to certain toxicants. So, for example, I'll take myself because I think I'm a good example.

I was born with a genetic abnormality different than genetic damage. We call these single nucleotide polymorphisms, or snips, where my body cannot utilize the scion very efficiently.

Glutathione is the major antioxidant in all mammals. So humans and all mammals, we use this protein to help pull toxicants out of our body. Some of us and that, you know, is a significant amount of the population up to, you know, 40% of Caucasians, less African-Americans and Hispanics and Asians have this problem utilizing glue to thiamin in order to grab on to toxicants and pull them out of out of our bodies.

So we have to do extra work in order to make that gene effective, right? To make that gene, make an enzyme that is effective at point toxins out of our body.

Toxicants, Toxins, and Individual Detox Capacity

So again, following this example using something called sulforaphane which is found in broccoli sprouts and other, you know, brassica family vegetables that upregulate the gene that makes the enzyme.

So if I get broccoli sprouts in my diet on a regular basis, I'm much more well equipped to get to get that really important molecule, glutathione on to grab on to pesticides and metals and other toxicants and literally drag them out of my body, either through my kidneys or through my liver.

So that's just an example of how we're all different, how we're all individuals. So you know this because you look in your patients for these single nucleotide polymorphisms and a good doc who's working with somebody who's been environmentally, affected, affected by environmental toxicants will actually look for this because it's an important thing to know.

Right? It really informs what we need to help us detoxify. Right. Supplements. We need, what botanicals we need, what compounds from food we need to help us detoxify more effectively.

And this is a huge problem. You know, I, have been so fortunate, doctor, papaya in my life to have wonderful mentors, just like you have. And one of the doctors that was a mentor of mine was Doctor William Ray, who practiced environmental medicine.

He was a cardiothoracic surgeon who also practiced environmental medicine in Dallas, Texas, and had a huge

clinic. People would come to him from all over the world.

And one of the things that he recognized after 40 years of treating very sick people is that the chemically sensitive people and those are, you know, folks who have high body burdens of chemicals, who are made sick by exposure to things like cigaret smoke or perfumes or diesel exhaust or, you know, gas at the at the gas pump, at the gas station.

He found out that they all have similar SNPs and, that those similar SNPs need certain types of, nutrients support. And so I learned from him, he wrote, I'll just show you four volumes in his spare time right there about all this, that right now read about this.

But, this doctor, Kalpana Patel, another amazing environmental medicine doctor of their observations of people who've been exposed to environmental chemicals and made sick by them.

And a good portion of these volumes are about the nutritional needs of the varying nutritional needs of of all of us who've been affected by environmental toxicants.

Right. And that includes each one of us on the planet today, because there are more toxins on the planet now than than there were, of our, of our predecessors and, and our genes did not evolve to live on our bodies and not evolve to how we need.

And, well, a we need another million years, right? That evolution. Right? Right. We don't have a million years to evolve you. No, we have to have other strategies and other plans to, to avoid those toxicants.

Number one, there's good strategies for avoidance. And number two, to get rid of those that we haven't been able to, export out of our bodies. Right. And so that's why we need active detoxification.

Not not everybody the exact same way we're talking about just now. It's different based on the genes based on exposure. But just by virtue of being on this planet at this point in time, I see I see loads of toxins in my patients, that's for sure.

Every single one of them. Well, it's very difficult to avoid them. You know, the probably the best example because we've historically had so much experience with that is led to led to the downfall of an entire civilization, the entire civilization of Rome, which had become big and spread far throughout Europe and Asia, literally fell apart because they were using lead in cooking, cookware, you know, bowls and utensils and, and pitchers that they would pour wine into, which would pull the lead out of the pewter.

And, and literally they lost their capacity to function mentally. That's what happened. They literally became mentally, I don't want to say retarded because that's not the appropriate term deficient enough that they're civilization fell apart.

Now, we have historically seen, when you and I were younger as an example, the average blood lead level was in the 30s, if you can believe that in the 60s and 70s it is now, because we've taken the lead out of gasoline, in the lead out of pay, it's now down to two.

You average blood lead levels below two. But guess what? Those of us that were alive in the 60s and 70s, we didn't urinate away all that lead, right? We didn't defecate away all that lead. We didn't sweat it out.

It's in our bones. Right. So for those of the like myself that are older, we have to actively do something to decrease our risk for cardiovascular disease, which is the big risk.

About a third of all deaths in this country from both stroke and acute heart attack. We now know since 2018 are due to lead. It is still a huge problem in our population, in America and in Canada and the rest of the world, right?

That's something that's not spoken about very much at all. Well, you know, in regular medicine it's avoided. We

might have avoided entirely. Right. But there's an 18 lancet, which is a renowned medical journal.

Lancet Public Health published a 20 year review. So they look back 20 years in a huge database, that the center for Disease Control creates, where they looked at that 15,000 people.

So this is not a small study. And they looked at the blood levels of those 15,000 people over 20 years, and they followed them and identified those that had died from strokes or heart attacks and looked at their blood, blood levels.

And guess where the risk was? At what blood level do you think the risk for dying of a stroke and a heart attack started 2.5 micrograms per deciliter of blood, which is considered perfectly healthy, right?

And that's close to the average of the population. Yeah. So when a doctor, if they have the acumen, if they have the insight to do a whole blood lead level on their adult patient who has a risk for stroke and heart attack, the lab will say to them, oh, normal is ten microgram per deciliter and below, right.

That's what the CDC says. Nowhere on that laboratory report will it say, oh, by the way, you know, get patients got a blood level of 3.6. They have a significant increased risk of dying from a stroke or a heart attack.

And this is that blood lead level. And this is the importance of, your class that you're teaching because doctors do not get this education. So unfortunately they don't, you know, health.

And I would include sadly, chiropractors acupuncturist because I've, I've taught all of them in post-graduate education, naturopathic physicians. We're trying to change that.

But right now there isn't sufficient time in the, you know, the medical curriculum to put in it. And definitely because I teach a lot of medical students, MDS and doctors get none of this in there.

Standard four year medical education and exceedingly little in their residencies. Right? Right. And then I know there's a lot of wonderful places for for doctors to get further education.

And in those places as well, it's not, it's not treat us in a lot of the functional medicine or quote unquote, alternative medicine postgraduate courses.

They don't they don't focus on this really important, information related to, you know, how do you, as a health care consumer, know what toxicants or toxins you're exposed to might be making you sick?

How do you know which ones go in and out of your body within a week? Because there are a lot that, well, you can avoid them and you're good. A lot of the toxicants in personal care products, a lot of the water, plastic toxicants like phthalates and BPA, they're in and out within hours.

All you have to do is stop putting them in and you start getting sick.

Lead Exposure and Cardiovascular Risk

And then they're the ones that go in and they can't get out. So let's talk about those which are the most concerning ones. It's going to take you. Yeah, yeah.

The way that I talk about this is by actually looking at the data. So the center for Disease Control, our big, you know, public health federal agency that's supposed to kind of lead the way in all of this.

They actually do have some really amazing data. So what they've done is they've looked at over 200 toxicants and toxins, and they've identified which ones are the worst.

And the way they did that is they put they have an algorithm. So they look at which ones are your patients. So

they're speaking to health care providers.

Which ones? These toxin toxins are your patients most likely to be exposed to it? And the way they figured out they looked at all the Superfund sites in the country.

And, you know, there are millions of Americans that live within, a mile of a Superfund site. You just don't know it. You know what advertises that their town is a Superfund site or their county is a Superfund site?

And then they looked at how likely are these toxicants to make your patients sick. And then they listed them from 1 to 200. And I think we're up to 230.

And the top four toxicants are metals. Arsenic is number one lead mercury. Oh and then cadmium is number seven. Sorry, not number four. But then the top seven toxicants.

There are four metals. Those metals concentrate in the body and you can take our soil. Arsenic is kind of an exception. Let's talk about arsenic because it's number one, the number one toxin that your patients, the FSA, are most at risk for is actually a metal that's found in drinking water, probably about, 7 to 15 million people in this country.

Now, arsenic is one of those metals that goes in and out really quickly. It's only stored in the nails, in the hair and in the skin, but it can be stored in the skin and it can increase risk for basal cell and squamous cell skin cancers.

So it actually can be a problem there. I would say a handful of doctors in this country know this and actually look in their patients urine for their arsenic exposure and then work with the patient to find out where that arsenic is coming from.

Right. And then help the patient not only avoid further exposure, but because that's the problem is if you're drinking water, you're going to get constant exposure to arsenic, which is a carcinogen and is the number one cause of gout in the United States.

Who knew. It's huge. Yeah. So, not only gout but you know, other diseases like cardiovascular disease, peripheral arterial disease, and so many others.

So arsenic is number one and one we want to concentrate on if you can identify that you're exposed to it, and you can stop the exposure and take lots of antioxidants to deal with, the damage of the arsenic is done.

You'll be okay. But with the other three lead, mercury and cadmium, it's not so easy because these metals are stored in the bones, in the kidneys, in the brain, and in the nervous system, throughout the body and in the liver.

So having metals stored in the liver is a big problem because your liver is responsible for the majority of detoxification that happens in the body, right.

Of all the organs. Right. We might be able to argue for the kidneys, but honestly, the liver is doing most of the actual work of getting these toxins ready to be eliminated from the body.

Right? Right. And so I'd like to talk about how we eliminate these from the body. Sure. I'm talking about supplements. Do they work? Which ones work for which people?

Because people come into to my office. New patients with, you know, the shopping bags full of supplements. I remember, remember not knowing which ones to take.

Yeah. So they're just taking whichever ones they see in the store. They're not they're not getting any guidance on what to do. I know well this and this is the problem of a well-trained doctor like yourself is that, you know exactly which toxins are related to which health conditions.

Right? That's the first part is you a patient comes in to you and they say, you know, I have mast cell syndrome, for example. And because of your brain and your knowledge and your history and your experience, you can go, okay, I know which toxicants and toxins are going to be suspect.

So I know where to look and what to look for, right? Once you find out what you're looking for or you find maybe something you're not looking for, but at least look, most doctors look right, then you know how those toxicants are eliminated.

And I'm going to talk about lead because I think being specific is really important. So studies have been done with good old cheap vitamin C off the store shelf.

And I'm not going to recommend that. But studies have been done in pregnant women to show that good old vitamin C increases their ability to release urine through their kidneys, with no harmful effects on the fetus at all.

So they follow these women to term. They had healthy babies. They had lower blood lead levels. So simple interventions like that. Now we can talk for many hours about what kind of vitamin C is preferable, right?

Because I've done a lot of research in this area since I was pre-med. There is a form of vitamin C that is much better than the other forms. It's IL ascorbate.

You know, that chemical form of vitamin C versus DL ascorbate, which is 99.9% of what's on the shelf in the health food store, right. And this Ela score based, is what's found in oranges.

And, you know, it's the form that nature makes, so to speak. Yeah. So with that, but without going into the weeds. So there are some simple interventions that are very effective.

There are some interventions that are urban myths and are not effective at all. And I'm going to be very specific because I teach doctors and they're asking these questions all day long.

Corella chlorella is very effective at helping increase the fecal excretion of certain toxins like polychlorinated biphenyls. We don't even know what they are.

Detox Strategies and Supplement Myths

What's a polychlorinated by phenol there in that top seven of the chemicals that are most likely to make everybody in America sick. But doctors don't know this.

So in Japan and in Taiwan, they had two massive, actual contamination incidents where the rice bran oil was contaminated with these chemicals. It was a big, huge problem.

So the governments of Taiwan and Japan actually did studies where they gave pregnant women chlorella, and they gave some non-pregnant women and men chlorella, and they found out that it significantly increased their body's ability to excrete these chemicals, both in the urine and in the feces.

But what Chlorella cannot do, and there's no evidence that it can do this, is help eliminate metals from the body. And I say that because I have been reading the medical literature for the last 25 years on this subject.

And there is no evidence that Chlorella does that. Now, many doctors believe for reasons that that I don't I don't know because I can't find them in the medical literature that chlorella increases the excretion of metals and so they will give their patient chlorella if they have mercury, lead, cadmium, arsenic or some other metal problem as a chelating agent.

Now, Chlorella does a lot of good things in the body. And so certainly for those research based purposes that I just explained, it's very useful. But chlorella in a natural environment, let's say the ocean or a tank or they're growing chlorella, to make it commercially will, grab onto metals from the water.

And cadmium is the one Chlorella most commonly grabs onto. Unfortunately, there's a significant amount of cadmium contamination of the, food supplement Chlorella.

That's out there. And I know this because I've gathered all the certificates of analysis from the companies that manufacture Chlorella, and I can show them to you.

It is, possible for companies to make cadmium free Chlorella. It's commonly referred to as glass grown chlorella because it's grown in tanks where the water is filtered.

It's more expensive, but this is the kind of stuff that that I have to teach doctors because of the urban myths that are out there about supplements, which is what your question was, right?

How supplements may or may not be effective for detoxification. Now, just to to end this whole, you know, we get into very animated discussions about chlorella when we talk about it.

There is a definite benefit to getting toxins out of your body. And we are all we have all been exposed to, and we will all be exposed to some of these, fat stored toxins, right?

Like pesticides, you know, remember Rachel Carson and Silent Spring and DDT, 99.9% of the American public has DDT and the breakdown product DDT in our blood.

The government has documented that, right? It's everywhere. It's in our food supply. Still. It's still being used as a pesticide in other countries that our food comes from.

DDT is legal as an anti-malaria, you know, as a malarial deterrent to kill mosquitoes. And it's used as an herbicide on food crops, as a pesticide on food crops.

So we have these fat stored toxins in our body. And chlorella does appear to help remove some of them. But if you've got a mercury toxic patient and the only thing you're doing is giving them chlorella, you may not be effectively and efficiently helping them in the ways that you could if you used other agents for which, in my experience, there's more clinical efficacy and more research.

Does that that answer your question? It sure does. It's shown. So what would you say are the most important foods and personal care products that people should avoid?

Oh, boy. So I have about, 24 hours of lecture on that particular topic, but I'll, I'll really try and be succinct. So I just mentioned the number one toxin that, you know, because you find it in the Earth.

It's in the it's in the dirt. It's the number two metal in the crust of the Earth. Aluminum is number one is arsenic. So arsenic is in the water supply of many, many Americans, also Canadians.

Yeah, definitely. If you live in Taiwan or Bangladesh, you're going to get exposed to arsenic. But it's also true in southeastern Nevada, some of the highest arsenic in the country is in southeastern Nevada, otherwise known as Las Vegas.

You know, right. Las Vegas. So, arsenic is in the water supply. It is really helpful for people to go to the environmental working Group website, ewg.org and look through their, searchable database for water contamination.

You can just put your zip code in there and you can see if you live in an area where there may be natural contamination of arsenic in your drinking water.

That's especially true if you get your water from a well. I just got off the phone this week with a doctor in Detroit who said her number one issue with her patients, because the majority of people who live in the surrounding area outside of Detroit get their drinking water from wells, her number one problem is not lead LED is a problem for sure

in Flint and in Detroit.

But their number one contaminant issue is actually arsenic, because they're exposed to significant levels of arsenic through their drinking water. Every day that toxin is coming into their bodies.

And arsenic is extremely well absorbed through the gastrointestinal tract. So it makes it into the blood very easily through the gut. Yeah. I'm seeing very high levels of aluminum now.

I wasn't seeing that. So aluminum this is a controversial topic. There may be some, climate engineering that's occurring, releasing aluminum into the atmosphere because it reflects heat back up into the upper atmosphere from the sun.

And, this is public information, and there's no conspiracy theory stuff here. But many doctors are seeing aluminum as a result. There's also aluminum in the food supply, just like there's titanium in the food supply.

Nanoparticles of aluminum and titanium are used in the manufacturing of processed foods. Thus the continuing recommendation, we have for all humans to eat as little food out of bags and boxes as possible, bags, boxes and, unfortunately, cans.

Right. And destroy as much whole, unprocessed food, you know, and body bags. I'm not talking about a bag of beans. Whole grain organic brown rice. I'm talking about a processed food that's gone through a process of being manipulated and manufactured and is not really recognizable as its original source of whatever it is. Right.

Another toxicant I'm seeing a lot of is perchlorate. Yes, more than I used to see. See, now let's talk about that. Yeah. Perchlorate is a chemical that's a chlorine based molecule that is used in the manufacturing of rocket fuel in, military bases.

Right. So Environmental Working Group also has a page on their website for perchlorate where you can there's a map where you can look up and I think it's zipcode searchable.

You can see if you live in an area in the United States near a military base or near an actual facility that manufactures perchlorate. Perchlorate is, a problem because the chlorine molecule in the perchlorate will alter the way the thyroid gland picks up iodine.

So as we know, you know, most everybody knows iodine is an absolutely crucial mineral for the production of thyroid hormone. And if you can't pull iodine into your thyroid gland, you know, you can't get it across the thyroid.

Barrier. That's the cellular barrier. You can make thyroid hormone, right? Perchlorate also alters the, it's it has some bad effects on fertility as well.

And so we really do not want perchlorate in our drinking water, which is where we're getting it right. And thus kind of especially in California, because I work with a lot of docs in California, MTBE, which is a gasoline contaminant.

I see that for a large, very common in the drinking water, and they're drinking water contaminants. And it is we're getting to the point where we're drinking water filtration is becoming a necessity, right?

Not a luxury. And so we have to figure out how to provide drinking water, point of use filtration. So I'm talking about at your tap in your home and your kitchen where you get your drinking water.

It has to be filtered. There. At that point P and not stored in plastic bottles, because filtered water stored in those big plastic bottles can leach phthalates.

Exactly. And BPA back into the drinking water. Right. So Dutch magic, let's give them some, some tools because right now people might be thinking, wow, okay, so I'm really exposed on this planet.

That's pretty. I know I need to see the right doctor to really have my self evaluated, but what can I do at home? Yeah. So I think drinking water filtration is a necessity at this point.

Reverse osmosis based technologies are the preferable technologies because they get the greatest amount of contaminants out of drinking water. So, I don't know if you want me to name names of specific technologies.

Water Filtration and Household Exposure Reduction

Yeah. But, pure effect filters are ones that I recommend for doctors. This is a scientist who worked in the nuclear industry to figure, to create technologies to remove radionuclides from drinking water, you know, amazing, amazing scientist.

And he now has, left the industry, because he feels that it's so important to create effective filtration technologies for everybody to hook right up to their kitchen sink, right?

Their tap to be able to filter their water. Now, the caveat here, this is very important. If you have high levels of arsenic or lead in your water or your water is fluoridated, many communities have fluoridated water.

You need to be aware of the fact that you'll need to change your cartridges on your filters more often, because you're literally filtering more molecules, more stuff through those.

You know, the cartridges are big. You'll see the cartridges for basically any technology that's good. They'll be separate cartridges and they'll they'll hook up, you know, they'll screw in underneath your sink.

Right? And they're good studies, especially looking at high levels of arsenic in the water that, reverse osmosis filtration systems. The cartridges have to be changed out on a regular basis.

Now, Doctor Malesky, who, I mentioned the pure effect, filter system. He is very, specific about this. He recommends that people actually test their water after they put their filter in. Right.

Because that's the water that's going into your body. So that's the water that you want to test? Yes. You know, your water's contaminated because you already looked it up.

An environmental working group called. Yeah. You want to know is can I get this stuff out? And how often do I have to change the cartridge? So there's, good public health studies looking at these systems, these filter, you know, a bunch of filtration systems.

They actually went into a bunch of homes in southeastern Nevada and in California, where there's high arsenic levels in the water. Yes, there is high arsenic levels in the water in California.

And these folks had just put in a filter and said, hey, problem over, right. Solution. And they found exceedingly high levels of arsenic in the drinking water in these people's homes because they never changed out their cartridges.

So installing the filter is the first thing. Paying attention and changing out the cartridges is the second thing. Now, water check a national testing laboratories has water checked.

That's one of the most cost effective ways to look in your drinking water for contaminants. They look for, pesticides. They look for metals, they look for solvents, they look for everything.

And they'll give you the choice of, you know, do you have a well or do you have city water? So they'll give you a specific test based on where your water comes from.

And then I've talked to them on the phone quite a bit and they're what, like you actually answered the phone. I mean, how often you can you call up a testing lab and they're like, hey, what can I do for you? Right.

To see if I could get specific tests done for specific patients who had specific types of contamination problems, like, they live near a fracking operation and they wanted to test for fracking chemicals.

These guys are on it. They're like, oh, yes, just tell us the chemicals you want to test for and we'll test for them. So we have wonderful resources like Intel, National testing Labs that has water check where we can actually check for the contamination in our water.

Now, talking about drinking water leads to the next subject, which is what about my shower? And what about my bathtub? Unfortunately, many contaminants that we absorb through our intestinal tract are also generally absorbable.

So they come in through the skin. They also come in through that wonderful, steamy hot air that we create when we take a shower. So shower filtration is a little bit, more challenging because we really don't have access to shower filtration units that can take out all the stuff that our big three, you know, just imagine you've got three cartridges this big under your sink.

You can attach something that big to your shower. Nobody makes it. It's not available. There are whole house filtration units that are available that go, you know, in your basement and can attach to, your main, your water main that comes into your house.

They're more expensive, though. You can get shower filtration units that are about this big that just screw on to your showerhead. They're very good for chlorine.

Some of them can pick up some pesticides, not many metals, not very much else. They're also basketballs that you can actually stick on your bath faucet.

You know, they literally hang on the bath faucet. They're very good for taking out chlorine and some of the byproducts of chlorine. You know, we use chlorine basically as an antibacterial agent in our municipal water supplies.

But not very much else. Right. So that's that's the challenge for most folks is how do I get clean water to bathe in and to shower in and with with a whole house filtration system?

That question is resolved. Not everybody can afford a whole house filtration system. They're about $1,700, right? It's a big chunk of change for most patients.

So what I recommend is drinking water is the most important thing. You can get a good drinking water filtration system for, I have to look because I haven't looked on the site in a while.

But for a couple hundred dollars and, that's the first step, especially if you have private well, water, if you're drinking water comes from a private well, you are more, at risk for exposure to a variety of toxicants.

That's just the way it is. And then what else would you tell them to do to avoid? So personal care products. This is a very, very important area. We lecture to doctors about this personal care products contain hundreds of Contaminants that are put in there on purpose and some that just end up there that don't have a purpose, meaning they're not part of making the lotion, smooth or making the product uniform.

Right. So we actually, you know, the the, think dirty app, on environmental working Group is a start. But honestly, we just had a lecture on this in our grand rounds yesterday.

Honestly, what I would say, given the research that I've looked at, we do podcasts every month and we've done the last several podcasts on contamination of cosmetics with performance and contamination of personal care products with Sorry, I'm just looking up.

Oh, it looks like I have to speak. I have to take back what I said. About $200. It looks like those, countertop filtration

systems are now $450, so it's gone up.

I want to be, straightforward about that. And I don't like talking about brands of things because, I see so many doctors who sell stuff. And I just think that's whatever it is, it is whatever it is.

But I don't have any, so I don't have any commercial, relationships with any companies that sell anything. I just can't do that. It's a conflict of interest for teaching doctors.

So back to personal care products. Honestly, this is what I've gotten to my business partner in our education business is a global consultant to the cosmetics industry doctor Anne Marie Fine.

You probably know her. She has done the deep dive in this research. We talked about this last yesterday. And she finds so many contaminants in green and natural personal care products.

I'm kind of to the point, you know, we talk like we need a list. There's the made safe list. You know what made safe? Dot com. Made safe is kind of cool.

It's a bunch of scientists, all women, coincidentally, scientists, moms who got together because they saw this need for, a someplace where you can go that scientists have actually looked for chemical contaminants in products, period.

So I'm doctor fun, doctor. Finest consultant for Made Safe. She's one of the scientists. They're starting to create that list, so I think made safe. Dot com is one place you can go.

But, I will tell you personally, I am getting to the point where I just want to list, but I'm getting to the point where I am simplifying the cosmetics and the personal care products that I use.

I mean, I'm really getting to her. Herbal oil, sesame oil, coconut oil, olive oil, using the the most basic ingredients that I can use. As personal care products.

I mean, we have really trusted all those products that are green and organic and safe. Means what? What I run to. Well, and here's the problem. So just this year, I'm talking 2022, a study came out.

By a group of scientists who looked in cosmetics. So I'm talking about blush, mascara, eyeliner and lip liner. Yeah. Or contamination with performance.

Now, if you don't know about performance, watch the movie Dark Waters with Mark Ruffalo. Great movie and it will teach you everything you need to know about performance.

They're a contaminant in our food and water supply and also in cosmetics that is responsible for a whole myriad of health problems, everything from cancer to infertility to thyroid disease.

And the problem with performance is that when they were made so they would never break down. Every human and every animal that's ever been tested for the presence of performance in their blood has found them.

Right? We're talking about mammals. We're talking about babies. We're talking about adults. This is a huge problem.

Personal Care Products and Chemical Contaminants

The companies, some of the companies that were making the cosmetics had no idea that there were performance in them. Why? They never tested their raw material.

Manufacturers never told them, they literally didn't know. Wow. Oh, well, see, we did a whole podcast on this. You'll see that in the. This was a, a scientific paper published in a technical journal, I believe toxicology and contaminated

Products journal.

Yeah. That, this is pervasive in athletics industry. It wasn't just Maybelline, right? Wasn't just the products we would suspect would have chemicals in them.

It was a whole variety of products, some that advertise themselves as natural. Which means nothing. You know, when a product advertises itself as natural it means absolutely zero.

Right. So is Doctor Fine putting together a list of the natural products that we can. She talked about her challenges in doing this. And they're what you might expect.

That when she actually calls the company and talks them and says I need a list of not just your disclosed ingredients but your undies closed ingredients, they say oh I'm sorry, I can't give you that because it's proprietary.

I see supplement companies will do the same thing. Oh that's a proprietary mixture of botanicals we have. We can't disclose it to you because then people would copy us and then we wouldn't have any, you know, special, ingredients anymore.

And supplement safety is a whole nother topic. We can talk about later. But back to the personal care products. So we had a long discussion about this yesterday.

And Doctor Fein said, I have a small list, and I have been literally begging her for the small list for years, but she is so conscientious about this that she doesn't want to release it until it gets a little, bigger.

But we will make it as public as possible. I'm going to splatter it across the homepage. Great. Yeah. Me I because I as a woman, want to know. And I'm sure you as a woman want to know. Right?

And men who love women want to know what chemicals are in personal care products, right? Yeah. You know, as we're having this discussion, I'm thinking is something that I've already known, but boy, this thought is really bubbling up more and it's that we are really on the cutting edge of medicine here.

I mean, this is not discussed. And we began our conversation talking about this, but but I mean, well, the more I will tell you there are bright lights on the horizon.

This will make you very happy. One of them is a new laboratory, new clinical laboratory called Million Marker. I love these guys. I have no natural relationship with them.

And I tell everybody I know about them. So here's who they're they're doctors and they're scientists and they're analytical chemists now offering direct to consumer a test for the chemicals that interfere with fertility.

Fantastic. So urine testing for phthalates, benzo Fernandez, BPA, BP, SPF, all three forms of the phenols. And a whole host of phthalates. And not only that, but you.

They ask you for a diary of all your personal care products, and they tell you whether those personal care products have any chemicals in them that might interfere with your fertility, which is also your health.

Right. Exactly. Yeah. That's why I love them. They studied they have, amazing scientists, doctor, researchers on your advisory panel, like Doctor Brenda, us.

Canarsie. Who's to. Oh, gosh. Now, 25 years, 30 years has been publishing research on chemical exposure and farmworkers and the children of farmworkers in the Salinas Valley of California.

So they have hard hitting scientists and hard hitting analytical chemists that work with them to do this. And actually, I think Doctor Fine just did an interview with them.

But they're put on their home page. So million marker.com. So it's direct to consumer. You can just give your patient come out information. They've been around since 2020 and just for the last couple of years.

But what what got me excited about them is that for many years I've been following the University of California at San Francisco Research in their, Department of, Reproductive Health, looking at contaminant exposure in women of childbearing age and in pregnant women.

So they've been focusing in on this, doctor Tracy Woodruff and their analytical chemist, doctor Roy Girona, for many years. And I've actually done, I reviewed their research and their articles and my podcast.

And what I find fascinating is this is I think this is the solution. And we have here the brightest scientific minds and the brightest analytical chemists and people who've actually published in this area saying, hello, women of childbearing age.

Well, you know, fathers too, because this affects fathers fertility. Male. Right. All these chemicals for, I think now $300, we can give you all the information that you need to avoid these chemicals that we know because there's just mountains of evidence that these chemicals directly, cause infertility, cause not are correlated with, but are causative for this massive, epidemic of infertility.

We have globally. Not only that, but we're going to help you take a look at all the personal care products. I mean, literally every personal care about your toothpaste or mouthwash, hair, mascara, everything that you put on your body, they've got a database for it.

That's great. Yeah. And then we will they'll give you feedback about it. Now we still what we still don't have is the expansion of that made safe list that you and I want.

Right. We're going to work to make that you and I will. We'll get on a case and say, you know, I mean, literally we had this discussion yesterday. She said, I have looked at every product I have found organic lipstick that is lead free that I can prove to you is lead free.

But right now, especially in the last two years, supply chain issues are wreaking havoc with this industry. Right. And many of these small companies, we're trying to do the right thing, have gone out of business, literally.

So for her, it's like, is this company still in business? Have their supply chains changed? Right. Have their raw material supply suppliers changed. So she literally goes right to the source and, and gets the information about who the raw materials.

I'm grateful to her for doing that. Yeah, she's on it. I am so privileged to be able to teach with her. Yeah. It's fantastic. So anyway, you know, thank you for the reminder.

I will have a discussion with her about sharing her small list with you and the rest of the world, so that we can really start doing this in the interim.

I think there are good, clean personal care products that are out there. You know, here's something I will I will share with you because I just did a podcast on this, do you know the Silent Spring Institute?

Do you know these scientists? The Silent Spring Institute is a group of science artists who were motivated by the life of Rachel Carson to carry on her work.

So they published research in medical journals on contamination in personal care products and in home building supplies. They do amazing research, and they published an article on, contamination of personal care products with bisphenol And what they found is that they because they actually took all these products into the lab and took them apart and analyzed them.

Great. Actually found that there are some products that have bisphenol S in them that don't say so on the label.

Right. And said they don't disclose it.

The FDA is not able to take a close enough look or they choose not to. Whatever, but they found a list that if the if the list of ingredients does not have any of these other chemicals in it, they won't have bisphenol as well.

So, this list, probably about 6 or 7 things that are knows like, just don't buy products that have this on the label. I think that's a good start. It's not the answer, but I think it's a good start.

And so I'll share that with you. I think I'm trying to figure because I, I write lectures all day long. So it's like, what lecture was that? But I'll find that and send that to you so that you have that know list and you can certainly publicize it.

Great.

Finding Qualified Environmental Medicine Providers

If there's anything else that you want to share with our audience, just let me know. And sure. Well, we have we have some reason. Oh, you know what? Will is great.

I'll share this with you. Doctor? Fine. Put together an infographic on all of this. Great. And it's really about contaminants and personal care products, and it's a it's her own no list.

So I send you that. It's beautiful because it's a beautiful infographic, like, it's got, you know, very easy, to look at and understand and read and think that as well.

Thank you. Is there anything else, Doctor Patrick, that you want to share? Oh, golly. What? Oh, my. We could talk for hours. Yeah. I think, yeah, I think, here's the important information.

So because I've spent the last 20 years teaching doctors, I know what doctors know and what they don't know. And and just like me, you know, there's a lot, if you and I had a discussion about Lyme right now, I would learn so much that I don't know.

I don't know, right? I have no no idea where my great big, huge knowledge gaps are around Lyme disease because I don't see Lyme patients. But you know that you can help fill in those knowledge gaps. So there are a lot of doctors who believe that they know a lot about environmental medicine, but it's limited to, doing a provocative urine metals test and using that as the information to treat patients.

And that is so insufficient. Absolutely insufficient and should not be accepted as the specialty of environmental medicine or sufficient for even testing for metals.

Right? Right, right. So what I learned from you, doctor, who does know that let's talk about who knows that. Oh. Who does know that the group that you and I both belong to, Eisai, the international Society for Environmental Acquired Illness is a brilliant and wonderful group of doctors that I lecture to every year.

I'm going to be lecturing in just a couple months. I know. Exactly. And these are doctors who specialize in the identification and treatment of mold related illness, but they are expanding their knowledge base right to include other environmental, exposures as well.

Right. I sit on the board for them. Well, that's all you do. Oh, so lucky them. Oh, that's great. Yeah. I really I'm so impressed with that organization.

Yeah. Another organization, the National Association of Environmental Medicine. So this is an organization that Doctor Walter Cronin and I started about, in 2007.

Doctor Jessica Tran as well. I want to credit her. She did a lot of the work, and it has become a, global

organization, actually, of doctors who specialize in environmental toxicant exposure.

And then there's our, doctors who have gone through our training program, and, and they'll be, listed on the Nam site as well. So Nam National Association of Environmental Medicine, just like I see, I have a find a provider option where patients can actually go and look for doctors.

You and I both know that specializing in environmental medicine is, lifetime specialty. Just like being an orthopedic surgeon, right? You are learning your whole life.

It's never over. And that there, you know, it is difficult to say that everybody who's a member of Eisai or who's a member of Nam, has been on that lifelong journey.

Some are just newly out of medical school, by the medical school, but their minds are open and they're willing to ask questions and they're willing to get help.

And that's the important thing, right? Right. So the other organization I have to mention, because, I respect them so much, is the American Academy of Environmental Medicine.

The ARMM has been historically, and I'm talking about back into the 60s, the organization in the United States where doctors who practiced environmental medicine would join and learn.

And so that still exists and is still a viable organization of both older and younger doctors who, were originally led by such luminaries as doctor Bill Ray.

Doctor Doris Rapp, who were our mentors? You know, and and really were bringing forth the whole practice of environmental medicine back when no one had ever heard of it.

I mean, there were literally like doctor Calpine of Patel, three doctors in the country you could go to if you had pesticide poisoning, who could really treat you and help you.

So I want to honor them. And I believe they also have a, find a provider option, on their homepage. Right. I want to thank you for being a pioneer for us, for being mentors, for the doctors in in my generation.

I mean, you've you've changed. You've helped change medicine, doctor Patrick. Well, you're absolutely welcome. I'm honored. It's a privilege, to have the job that I do.

I'm really very grateful. Grateful for you. Thank you. For.