#606 Nontoxic Home Design: Mold, Lighting, EMF, Nontoxic Building Materials With Brian Johnson

Dr. Wendy Myers

Hello, I'm Dr. Wendy Myers. Welcome to the Myers Detox Podcast. On this show, we talk about everything related to heavy metal and chemical toxicity and the health issues caused by these toxins. We also discuss anti-aging, bioenergetics, and more advanced topics in health than you'll find on other shows. Today, we're gonna be talking about non-toxic home design. We talk about mold lighting, EMF, air and water filtration, and non-toxic building materials. My guest today, Brian Johnson, is an expert in non-toxic home building from the ground up, but also consulting with people on their current homes and how to improve them based on their priorities and their budget.

We discuss things like non-toxic building materials and concrete base construction methods, such as ICF and ICCF that offer superior fire, earthquake, hurricane, and mold resistance compared to traditional wood framing. We talk about how mold grows so easily in most of the materials that are used for traditional construction in our homes today. We talk about proper EMF mitigation and how that requires addressing electrical fields from the wiring in your home, AC magnetics, and how the DC is converted to AC. We talk about radio frequency and dirty electricity through design and technology choices. We talk about lighting and how advanced LED lighting systems can support circadian rhythms without the EMF and flicker issues of old technologies. When you have a dimmer switch, you get a lot of flickering and high EMF output from light bulbs, strangely.

We also talk about how lighting systems like color beams use low-voltage Cat6 wiring to eliminate EMF. We also talk about whole-home water filtration and restructuring devices, and how new power management systems can automatically cut power to unused circuits, which means less EMF in your environment where you're sleeping and less stress on your nervous system. It is a really good show today for anyone who's looking to build a home or who is looking to get ideas, looking to improve their home environment to make it healthier. It was a great show today.

Our guest, Brian Johnson, is a licensed general contractor, project manager, healthy home builder, and building biologist with over 23 years of experience in the construction industry. He's an experienced general contractor with a deep understanding of building science. He's also earned triple certification from The Building Biology Institute, an achievement that underscores his unwavering dedication to creating healthy and sustainable living environments. Brian's passion for building performance is rooted in his lifelong commitment to health, athletic performance, and wellness. He's an elite, top 1% all-world athlete, so he intimately understands the crucial role that both physical and environmental factors play in achieving peak performance.

Brian's holistic approach to construction seamlessly integrates natural lighting, indoor air quality, and ventilation, as well as the use of non-toxic building materials. At the core of his philosophy is the implementation of advanced water filtration systems that transform ordinary water into healing water. You can learn more about his work and hire him to design your home or fix your current home at senergy360.com. Brian, thank you so much for coming on the show.

Brian Johnson

Thank you, Wendy, for having me here. Good to be here.

Dr. Wendy Myers

Why don't you tell us a little bit about yourselves? You've been building homes that are fire, earthquake, hurricane resistant, which is a big bonus, and mold resistant, and some of the most energy efficient homes that you can build. How did you get started in this business?

Brian Johnson

Good job. You nailed it on all of those, and some on the type of construction methods that I do. My background is pretty much right outta high school, got right into the lumber industry, and then from the lumber industry, I faded into construction. But in 2000, I went into home building, and I worked with a builder who actually signed for my license as a general contractor. I became a general contractor, 2003. But he opened me up to the world of concrete. I was always fascinated with concrete, and I worked in the lumber industry for so long. I went right into building homes, but concrete homes.

Back in the day, I used to build these homes, what we refer to as ICF. It's pretty common in the industry today. ICF stands for an insulated concrete form. Basically, you stack these homes up like Lego blocks and you fill 'em full of concrete. Fast forward today, now that I've learned about everything about healthy building, well, these ICF forms are foam. It's a fossil fuel. It's a petroleum-based product, and of course, it catches fire. Then it becomes toxic. And the goal is, we'll talk about this, but is to build non-toxic homes.

ICF no longer fits that bill. It has a lot of great attributes. However, manufacturers over the last 20-plus years have manufactured composite versions of these ICF blocks. So now we are truly building using a very similar technology, which we refer to as ICCF, insulated composite concrete form construction.

I was always fascinated with concrete and building these robust structures, 12-inch walls. I didn't look at it when I got into the industry back in 2003, of actually building these homes in California. I was fascinated that they were fire-resistant and that they were hurricane-resistant. I guess we didn't have hurricanes in California, but we had earthquakes.

Dr. Wendy Myers

People are happy if they have your home. They're happy about that with all the regional beds

Brian Johnson

In 2003, it made a lot of sense, plus it was energy efficient, but where my career shifted was in 2008. I quit building, and I just went into concrete. I was doing concrete chemical containment, chemical exposure, and waterproofing systems. I got to learn a lot through understanding the importance of waterproofing and how it translates into mold and things like that. But the reason why I got out of ICF back then was because people were looking at it from an energy efficiency point only. That was it. But at that time, lumber had dropped, steel had risen, and concrete had risen, and it really priced ICF out of the market. So I just put my eggs into a different bag and went quiet in that industry until I knew that I was gonna come back full force and build the homes that we're building today.

Dr. Wendy Myers

I never really understood why we're building homes out of wood. It doesn't really make any sense because they can be eaten by termites. They catch fire and they just go up like a cinder block and it gets wet when you're building. That's a problem. I just don't get the drywall. I like it but it's prone to mold. There's just so many different problems that can occur that create health issues. There're so many people living in sick homes and the doctors are not really thinking about that or thinking about mold typically, or all the issues that can come from living in a toxic home.

So why build a healthy hub? What are some of the reasons why some of our sales pitch for building a home like this and going to the expense and that kind of design?

Brian Johnson

Why are we into health? Why are we into biohacking? Why are we into functional medicine? Naturopathic as these alternatives to a western approach is to optimize ourselves and find the underlying root cause, so we can heal and then we can thrive. Well, I come from that industry too, at the same time. I was really big into health. People are talking about circadian lighting, people are talking about air filtration, people are talking about indoor air quality. People are talking about VOCs and all these things. We're dealing with all of the issues working with functional medicine and medicine and we're taking the pill, getting the subscription, getting on great diets, but we're not fixing it within the home.

Everybody's putting a bandaid on it. Like, well, I'm gonna switch my light bulbs out, or I'm gonna do this air purifier here. With my backgrounding and building, I'm like, no, there's definitely a solution. And it's definitely not going back to wood framed because I didn't even start off with wood framed homes. I started off with concrete homes. So I knew that bringing this forward to build a healthy home was going to focus on indoor air quality, climate control systems, and water filtration systems. We're gonna work on safe EMF environments on how we wire the homes. We're gonna work on good design of how we design the home and where we're putting the home, and all these different facets.

Again, non-toxic buildings started stacking and basically put all that formula together with my background on concrete construction. I'm like, Hey, I'm already building a mold resistant structure that's gonna withhold earthquakes and hurricanes and all these fires and all these other things. It was a no brainer. Five years ago when I came back into the building industry and built several spec homes of my own., I spent my own millions. You hear the stories of people spending millions biohacking their health and things like that. Mine was literally my own money of building my own spec homes to literally create on my own dime, on my own budget because I knew these homes were gonna be over-engineered. It was probably the start of the biggest success for me because I actually built it.

I proved that it could be done to all of the builders and people that I showcase these homes to actually see it, touch it, feel and understand. I'm focused on everything outside of the home, but I really want to focus on health within the home. And that's the goal. We wanna build homes that are safe and sanctuaries that we can actually heal in. So we're not going outside of the home to heal only to go back into the home to get sick. We're actually going into the home to heal.

Dr. Wendy Myers

Let's talk about mold, because mold is estimated in over 70% of homes. You build a new home, usually within a couple years, it's gonna have a mold problem pretty soon. What is the genesis of that? Why are homes so prone to mold?

Brian Johnson

Going back to the stick frame methods, paper mache homes, if you will, in the eighties, that's when we were focused on energy efficiency. Homes started getting built tighter and sealed in plastic. It's plastic on the outside. It's plastic on the inside and we're not climatizing or controlling the humidity within that environment. So it's like now you have this environment that the ecosystem is so thrown off. When I say ecosystem, I'm talking about balancing the humidity levels and the temperature levels and how we're insulating it from the outside in the delta swing to the inside of the home.

If you ever see the dew on the windows from taking a shower and it's cold outside, well imagine that that's just sweating inside of your walls. So, in a wood framed tome, you're gonna get a lot of that sweating in the walls because it can't breathe. Moving forward on my method of construction, as far as building these concrete homes or a rammed earth home or an Adobe home, even with all the building materials within the home, we still have to frame up walls on the inside. We still have to use forms of drywall or plaster or what somebody wants.

But the goal is that all the materials that we use are breathable. We wanna do a design where we can control that microenvironment within the home, the humidity levels, temperature levels, and ventilation. But we also want to use non-toxic building materials that have a high permeability rate, that are breathable. So when moisture gets in, it's not if, but when it gets in, then it's gonna go back out again and not hold onto that to create a moldy environment. I know it's kind of a long-winded story, but basically you want a breathable home. You don't want a home that's sealed up because if you have a home that's sealed or even your lumber.

Lumber comes to the job a lot of the time moldy. They're framing the home up moldy, and then they're framing it up into the rain. They're really not using any good practices to dry the home out before they dry it in and putting the roofing on, then insulating,, doing their siding and all these types of things. They're just literally embedding that mold right into the home before it's even completed.

Dr. Wendy Myers

It doesn't make any sense. Every time I drive by some place they're building homes, the wood is wet, or it's getting wet for weeks and weeks and weeks during the

building process, even if it doesn't show up moldy. And then the insulation drives me nuts when I think about the pouring insulation or, you see the rollout insulation that's full of fiberglass. I just don't understand how people put that on their homes.

Brian Johnson

The market's cleaning up and it is getting better, but a lot of your older installations, even like just five years back, had formaldehyde in them. They had all kinds of different chemicals. They would absorb water, hold water, and then they were full of paper or cellulose, which is a food source for mold. So as soon as it gets wet, not only is it holding that wetness, but now it's inside of a wall cavity. And then when it reaches that right humidity level, which it will, then that's when you have the mold growth.

Ads 15:27

If you're taking protein powder, you need to stop and listen to this. The Clean Label Project recently tested 160 of the top-selling protein powders in the US. They tested 83% of the market, which is 70 different brands, and 40% of the products tested exceeded Prop 65 safety thresholds for lead. 21% had more than two times the Prop 65 safety thresholds for other heavy metals and toxins. 65% of chocolate protein powders tested over the Prop 65 safety thresholds, and 77% of plant-based protein powders tested above these thresholds as well. That's definitely not what you want from products that are supposed to support your health, particularly. It's something that you're consuming daily.

What the study found was that Puori PW1 protein powder was awarded the number one cleanest protein powder out of 130 different brands. The choice is clear. That's why I love Puori's PW1 Wave protein powder. Every batch is third-party tested against 200 plus contaminants. They don't sell any product unless it passes these tests, and they make all of their third-party tests available via a QR code. You can scan this QR code and see exactly what is in this product and what this batch tested for. No other brand is doing that because they won't pass the test. Each serving gives you 21 grams of minimally processed, clean, high-quality whey protein powder from pasture-raised cows' milk. So, no hormones, no GMOs, no pesticides, nothing to worry about. I personally love the bourbon vanilla flavor. You get real vanilla seeds from bourbon, vanilla from Madagascar, which is known as the best vanilla in the world. It's

high quality. It tastes amazing. Even my daughter mentioned how she loves the vanilla flavor in it.

I worked with Puori on an amazing deal for you. You can get 20% off, or if you choose the already discounted subscription, you get almost a third off the price. But you're only gonna get this deal if you visit my exclusive link at puori.com/wendy and use the coupon code Wendy to get 20% off this amazing deal of the highest quality whey protein powder that's been tested for 200 plus contaminants. You can bet on this for quality. This is my number one recommendation for protein powder because the results are in. Puori is the number one cleanest testing protein powder on the market.

Dr. Wendy Myers

Let's talk about EMF because this is something that I think a lot of people don't really think of. People are dabbling with EMF mitigation here and there, but it's interesting to think about starting from the ground up, thinking about what you can do to mitigate EMF before even starting to build. So how do you approach that?

Brian Johnson

My goal is I would like to build homes for anyone across the country, no matter where their environment is. Now of course, we're not gonna build under a power line, but the goal is one, is to know your surroundings. Look for the power lines. I know a lot of people do this 5G cellular search. You need a meter for that because it can throw misguided information. We wanna know what the external environment is, and then we find this location, well again, whether it's urban or rural, it doesn't matter what the types of building that I'm gonna share here.

The mask wall, which I refer to by the ICF construction, or Ram Earth, or Adobe's is considered a mass wall construction technique. And so when you have a mass wall of 12 inches thick, because the walls at minimum are 12 inches thick, you don't get the radio frequency wave from like a 5G or a cellular antenna through that wall. It stops it at that wall. Now it's not gonna stop a bunch of power lines, and there's other ways to mitigate that. But again, we wanna know and be familiarized with the external environment now when building the home from the ground up. As far as an EMF, let me share this. There's four types of EMFs and I wanna break it down. You have an

electrical field and that's the 60 hertz cycle of how all of our power comes into our homes. We can't get away from that. That's what brings the electricity in.

Dr. Wendy Myers

I think people don't realize how EMF, the dirty electricity, can emit from their walls into their bed while they're sleeping, like nine to 12 feet out from your wall.

Brian Johnson

Well, it just depends. Typically the field is about 24 inches, so it can easily extend to nine feet. And here's how it can extend a metal bed frame. Metal's a conductor. We're 80% water or plus. We become a conductor of synergy. It's not that the energy's bad. It's just we conduct that. So if you have lamps plugged in with outlets, you have your arx, your wiring in the wall, you have a 20, 24 inch kind of a space around that, that emits a field, but now goes through the lamps, goes through the power cords, goes into the body, goes through the bed, and now it's reaching out to that nine feet like you're talking about.

That's what we refer to as the electrical field. That's the one form of the EMF. It's electrical fields. The second form, and this is the deadly one. This is the silent killer, and it's AC magnetics. It's the electrical field, the magnetic field that if there's certain circumstances on how wiring is done within the home or even a big power line, the big distribution lines and the transformer lines that you see, or even a transformer within your kitchen in your refrigerator or solar panels. Well, we'll swing back on that big topic, but these put out what's referred to as an AC magnetic field.

That could be caused by MS wiring in the home, and that's the silent killer. That's the one that most of the research is done through, like the bio initiative report that launches thousands of studies on that. For children, it is linked to leukemia and all these types of things.

Dr. Wendy Myers

What's the third form?

Brian Johnson

That's the radio frequency. So your cell phone or a wireless phone. Not very many people have wireless phones anymore. A wireless router within the home, of course 4G, 5G, and all the different cellular activity. Microwaves put out a high amount. That's why the microwaves are bad. That's an rf. And then the fourth one, and this is the elephant in the room, it's talked about a little bit. People don't quite understand it. This is gonna set us up perfect for solar, and that's dirty electricity, referred to as micro electrical surge pollution, MEP. That is caused by technology.

Power supplies that boot up your computer, power your tv, power your router and, the inverters, this is on the solar. There's a big misconception. Solar panels do cause the photo tic the process. It's pulling in the energy from the sun and it's converting it to a dc, which is a direct current. There's no field from a dc. It's a direct current, but through the photo tic process, there's a small field of a slight radiation to it, but it's a narrow field. Where the misconception is, a lot of it is how that power is being distributed from DC to ac and it's what we refer to as the inverter.

This power gets changed to ac to power the home. Then what it does is a lot of these inverters, they put out dirty electricity, high levels of the MEP and what happens is it rides the whole electrical system of the house. And so you're talking about coming through the walls? That's because it's riding onto the electrical field of the wiring. So your whole house is just full of all of this dirty electricity. We can control that. And so when I'm designing a home, I'm good with solar because I already know what solar does. And the cleanest waste to get clean energy and be off the grid if you want, is all through the inversion process.

I can put out the cleanest AC electricity that's in the industry hands down, period. It's easy to design it. But now here's the caveat. You have neighbors, say you're even in a neighborhood and you decide to build on a lot and there's homes around you. Your neighbors have these solar panels and they have dirty inverters and pool pumps and all kinds of technology. Well, there are dirty powers going onto the grid, going right into your house. And so there's ways that we can mitigate and do this for the whole house. It's like a very large surge protector, specifically geared to absorb that energy of coming into the home.

There's things that we can do to mitigate that, but from the wiring infrastructure of the house, then we're just very mindful of where we're routing the wires, good design, making sure that the power panels are away from sleeping rooms. Getting back to the power piece of the inverter, I work with several companies that have power management systems, and this is really cool for your audience. This is a huge takeaway for everybody that listens to this right now. Before I used to do a kill switch in the bedroom. You could go into your bedroom, you could just hit the kill switch, and what that does is it turns off all your one 10 circuits to your bedroom. You're completely in this non-EMF environment of your bedroom.

Assuming we built this concrete home and it's protecting us from all these different things and good design and we can mitigate other things if anyone has questions, but now with these power management systems that are putting out clean power, what it'll do is it'll detect if a circuit is being utilized. They look at it more from energy management and savings, but by default what they've created is a low EMF environment because it kills the power to the circuit automatically.

Dr. Wendy Myers

Oh, what an amazing idea.

Brian Johnson

When I approach these companies, I'm like, do you realize what you've just created the healthy home building industry that you killed the circuit? They're like, yeah. We're just doing it because we're saving power and it's a smart management system. So if you're on solar, it's gonna detect if it's wasteful power and it's just gonna kill the circuit. I'm like Yeah, but now you just killed all the EMF to the environment.

Dr. Wendy Myers

Yes. It's great. People don't realize when you have an appliance plugged in, but it's not even on, you're still getting that dirty electricity that's leaking.

Brian Johnson

There you have it. Yeah. A good point there too, because, say we've cleaned it up, we've built this great infrastructure and we bring in our Viking refrigerators and whatever technologies are out there. Well, even a refrigerator will put out a little bit of DE. It can but not all of them. Now we have the sit situation with induction cooktops. I've measured induction cooktops that measure higher magnetics and radio frequency than a microwave. You really have to be mindful about it. I'm switching from gas because I'm gonna go to an induction cooktop because it's safer, the air quality, because the gas puts out carbon dioxide and monoxide into the environment. I don't have the right proper hood that's pulling all the fumes out from cooking all the oils at 180 degrees

That's still gonna happen on an induction cooktop anyways, sorry, digress from that whole aspect, but the technologies create some interference. Even though we still are filtering it, and in this perfect environment from a DE standpoint, there's techniques that we do to actually help clean up the power within that, based on the technology or just identify the technologies and put them on a kill switch. Well, with the exception of your refrigerator

Dr. Wendy Myers

Can someone get it if they say their home's already built? Can they get technology like that to stick to their environment?

Brian Johnson

There's a lot of stuff out there now in the healthy home building industry and the building biology industry and the EMF world of micros surge, protection filters and things that we can do. But you gotta really know what you're looking for because even the manufacturers, what they'll do is they'll sell you a hundred dollars meter. You plug it into your wall and it's just giving you one form of a frequency. It's a broad range of frequencies. MEP, sorry, I should have said this at the beginning is harmonics, it's line noise. It's literally noise. What's a byproduct or how is de going to affect us? It's going to stress the central nervous system. That's what it does, because it puts out line noise and it's like the flickering light you can't see.

That's exactly what DE is. It's the audio audible sound that's riding on this wave that we can't hear. But the central nervous system picks up on that and it creates a stressor. Some people that are very sensitive can hear that. They sell these meters that you plug in and all it does is it just gives you a low frequency. More than likely it's gonna tell you there's dirty electricity in the house, but it doesn't tell you the full spectrum of that. So, like for example, when I go do my assessments, I use an oscilloscope with a very advanced meter that measures the full scope because I want to know if it is coming from an AM radio, an FM radio, is it coming from a certain technology?

With more sophisticated equipment, like a building biologist or somebody like myself, we can go in there, literally pinpoint every device in the home that's creating that MEP problem. So you want to consult with somebody instead of just plugging a meter and start popping all these filters in all over you. You want to consult with somebody to understand that. But yes, there's definitely solutions.

Dr. Wendy Myers

What about those smart meters in the home? Nowadays most people have replaced an analog meter that someone comes and checks every month with a smart meter. So how do you address that?

Brian Johnson

The smart meters for me again and good design, you can try to opt out. But some cities don't even offer the opt-out and the opt-out is you keep your analog meter and you pay $20 more a month than they manually read the meter. If you do have a smart meter, ideally it's away from the home. So hopefully, if you have the luxury of designing and building your home, more than likely your power panel also is gonna be up the garage or a service area. So it's away from home. But what it does, it has a radio chip in it and it sends out every, they're all so different, like, say every 30 seconds, it'll just send out a very high powered blip of a signal. That's RF. I drove by the other day to meet a friend, and unfortunately, the person that lived in this one apartment had the bank of all eight meters on a wall.

I was just hoping it wasn't a livable wall behind that. I wouldn't think that they would do that. I don't think they do. But every 30 seconds or one minute or whatever, they're getting blipped at all kinds of different times. That's not too healthy because you're getting the RF going right through the wall back into the home, and so you're constantly hit with these blips. It's a short signal. It's like a millisecond long, but if it's distanced from the house in an open area, the RFgoes out. It doesn't really have a chance to reflect and magnify its signal and bounce back to you.

The signal, believe it or not, in an external environment, drops pretty rapidly. Now, I'm not condoning any favors of that, but I do wanna share that if it's distanced, you don't know until you have a meter that measures it. You have to have the right type of meter to know what's the power of the signal and how far is it dropped off before you know, is it even getting into the home?

I know there's a lot of fear around that, and there's a lot of bigger things that we should be concerned about than a small blip, unless again, if it's on your bedroom wall and it's going right in, then there's things that we can do to shield. There's different screens like a Faraday cage or different draft light paints that you can shield. There's definitely things that you can do for sure around that, but you really want to measure to know if it is really affecting you? They make everyday cages as well that you can just slide over your meter. That's a good recommendation too. Maybe we'll put that in the show notes of a company if you don't have one that you promote. There's several that I work with. It's a cage. It literally just goes right over your meter.

Ads 33:18

I wanna give a shout out to one of our sponsors today. It's Tru Energy Skincare, and this is the skincare line that I'm using, and they have an amazing product out. It's called the Energy Optimized Body Sculpting Stone that you see right here. I also love their refreshingly revitalizing hand in body lotion. I use this every single day. This is part of my nightly routine, using the sculpting stone and the body lotion. I love Tru Energy Skincare and the sculpting system. It's called the True Energy Body Sculpting System, designed to support lymphatic detox and fascia repair.

The protocol targets the acupressure points to activate the body's natural detox pathways. So what I'm doing every night is putting the lotion on, and then I go over my whole body a few times with this stone. You go over your entire body and they have a little information kit to guide you on what to do. This stone is made of natural ion stone and it's energy-optimized with Tru Energy's proprietary biophoton frequencies. We sometimes refer to them as beauty frequencies, helping to communicate to the body at a cellular level to act as if it's young again. So it's sending new information and frequencies to your skin to improve collagen, improve elasticity, help with lymphatic flow, and help with flushing and detoxification of your skin.

When paired with the bioactive functional hand and body lotion, it enhances hydration. It combats dullness and brings out a healthy glow. The lotion is also energy optimized with the same proprietary frequencies, using a little green bead inside it that has all the frequencies imprinted on it. This powerful combo is ideal for those dealing with premature skin aging, cellulite, feeling bloated or swollen, and all the signs often linked to stagnant lymph flow and toxin buildup. You can get this duo at trytruenergy.com/wendy2. You can get this combo at that link.

Again, I do this every single night. I'm absolutely in love with Tru Energy Skincare because everything I do in my life is frequency-based. You guys know that, if you've been listening to this show, I'm obsessed with bioenergetics. I've got bioenergetic software running, but everything I do has frequencies imprinted on it, and everything that I use that includes my skincare. I cannot recommend Tru Energy highly enough.

Dr. Wendy Myers

You build homes from the ground up. Do you come in and consult with people to make their existing home healthy as well?

Brian Johnson

Yeah, that's prime. It turned out to be most of my business though. I went from proactively building to doing these home assessments. I have a lot of projects in Florida. Florida is a pretty popular spot for me. New York seems to be a spot. I seem to go to Texas a lot. I'm in California a lot as well. So what I do is I travel out and it usually

takes one to two days to do an assessment, but it's like a home inspection on steroids. It's like apples and oranges depending on the type of the inspections that I do.

I start off from the roof. I start off from the external environment, like we talked about, identifying the source, where's the power lines, where's everything coming in from? Then from an EMF perspective, just looking at the grading and making sure, do we have grade issues? Is the water draining into the home instead of away from the home? Do we have good drains, good gutters, and are we sheeting the water away? But then I jump into the inside of the house and then now that I know what the EMFs are outside, then I go inside. I start point sourcing and I start looking for any kind of direct correlation. If there's an EMF issue within the home, and of course, I'm looking at the grade water windows. Is there water penetration penetrating through the seals of the window through the manufacturer, the way that it was designed?

I'm jumping up into attics, crawling spaces if they exist, taking high powered lights and infrared guns and looking at the drywall, looking for bubbling infrared to see if there's any color differentiation. What an infrared gun does, and people talk about this, it's just telling you the color differentiation. So you can tell if the house has good insulation or not. You can tell if air is circulating good or not. The only way to really catch an active leak is if it's an active leak from a pipe or if you have a rain. And then you could do thermal imaging to find these things. We're doing, of course, the mold testing, we won't get too far on that, but all the way from air cassette, air ca, air pumps to MSQPCR, IRMI test, endotoxins, mycotoxins surface sampling, testing into the mold realm.

Again, we wanna look at the building first. First things first. We want to see what's the mechanics of the building to the design, the roof, and all these types of things. Then we get into the whole mold factor if that's a concern for the client, and then of course the indoor air quality, that's a big one. We're looking at all the HVAC handling equipment or whatever is distributing the air the filtration. Are we bypassing filtration? Is the dust force getting into the whole system and contaminating the whole environment? Are we getting fresh air into that environment? Using things such as HRV or ERVS, this heat recovery ventilator or an energy recovery ventilator, are we bringing that fresh air in? Are we filtering that air? Do we have good HEPA

medical grade filtration coming into the air handling system to distribute this pure air? Is all of the millwork from all the cabinetry, all the paint, all the wood flooring that we put in emitting VOCs, volatile organic compounds and formaldehydes and other types of chemicals?

These are all the things that I do in an inspection. I do a lot of project management. I work with a lot of architects and design. All I do is I just bring in the specifications of all the various things that we've talked about so far on this call. But what I do is I bring that to the architect so the architect can embed that into their plans and to their design. And so when it goes out to bid to the builder, the builder has somewhat of an understanding going, okay, hey, I understand. I see these different specifications. And this is big for the builder because all the building materials that I'm specifying, these are practical materials that you can get at a building supply warehouse. This isn't something being made in another country or has to be harvested in a full moon or anything like that.

These are products that are readily available and it's really good to ensure for our general contractors out there, because if we just go to them without an architect and say, we want you to build us a healthy home, the builders can be like, what is a healthy home? What does that even mean? Where do I even begin? Through this beautiful process, working with an architect, building the specifications in, and then what I do is I actually help manage the project on behalf of the client, but I give support for the general contractor to walk them through the entire process and give them the support and everything they need to build a healthy home.

Dr. Wendy Myers

Yeah, that's great. I can just see you working with people that have no idea what any of this means or why you would even wanna bother doing it, and people just don't think about these things at all.

Brian Johnson

It's crazy because I'm so into it. So for me, it's like the norm, but then when you get out there, we get outside of our bubble of what we do and we find out that it's not the norm. But it's great because it's challenged me to really learn how to speak the

language of construction, but health and technology and really put it together in a beautiful package to the contractors. Say I'm working with electricians, we're looking at forms of EMS. We don't need to go down the rabbit hole of what they are, but this is what they are from a layman's terms, and all electricians going, okay, yeah, I understand. I get that. Well, we're just gonna wire it this way because what it does is it eliminates X, Y, and Z. And they're like, oh, never really thought about it that way.

So then it's like the light bulb goes off on their head. The more that we educate all the trades, it's not just down to the labor. Why is the labor wiring, pulling cables a certain way or whatever the case may be. So they have a clear understanding about what they're doing. Of course, the GC has a very clear understanding and support. I do speak that language, and it's awesome because I found in the last five years since I've started back into this, that I would say 70 to 80% of the contractors have been very receptive and the willingness to learn has been amazing. It's been great.

I was really skeptical. A lot of friends that know me well, they're like, Hey, good luck on your new healthy home building endeavor. Within the construction industry, they know what the pushback's gonna beat it. It's like a holistic home. What the heck is that? But no, it hasn't been that bad. And the other 20% are just skeptical throughout and it's too bad. It's like you're literally giving them everything, to pass the torch on to the next job that they build by working with the next client. I think that's gonna change again. As we educate and this becomes more mainstream, contractors are gonna be more conscientious. This is gonna be talked about. There's gonna be a higher demand to build healthy homes.

Dr. Wendy Myers

Let's talk about lighting because I don't think people realize how much lighting affects their health, circadian rhythm management and their ability to sleep at night, which is the whole foundation of their health. It's really important to pay attention to this. I'm just so happy that Trump is bringing back incandescent bulbs because I hate the LAD bulbs that are just all this blue light, making it really cortisol. I hate fluorescent lights. I just want the old school Edison bulbs. Just let me add it. So let's talk about lighting.

Brian Johnson

Oh, I love it. I can maybe help convert you even on this call of LED.

Dr. Wendy Myers

The only reason I don't like the LED is because the ones you buy at the grocery store are pure blue light.

Brian Johnson

I do post about this on my Instagram account and it was funny just recently, people are like, man, just do some simple videos. You're going so far deep on the stuff. You're losing your audience. I'm like, okay. I go into a Home Depot, I do a video, it'll be on there. People will be able to see it. But what I do is I point out the color temperatures, and that's what we're referring to. But there's more to it. I'll back up on this one, butI talk about the color temperatures 'cause it's all LED. So if you are wanting to support your circadian rhythm from a temperature, a color frequency, then you would pick like an 1800 K Calvin, which is the temperature. Then you would put the former that's an orange bulb, or call it amber

If you want daylight, put in 5,000K. That's gonna be the blasting blue light that you're talking about. Okay. There's lights and it's like, oh my God, it just burns my brains out. I do a lot of stuff where I try to make it practical, then you tie in a dimmer to an LED. Now you've got the flick. So, not only twofold here, not only are you creating a flicker on the bulb, because the sun doesn't flicker. It's not natural. That's a concern of flickering because again, it stresses out the central nervous system. All the studies were done in the eighties, and it's part of my problem still from being all in or the fluorescent lights in elementary school or high school. We've really understood the studies there. But also, you're putting a lot of dirty electricity. Dimmers do a lot of dirty electricity.

Dr. Wendy Myers

Everyone, just so you know that all light bulbs can emit a tremendous amount of EMF as well. I know the LEDs can as well, depending on the type.

Brian Johnson

It's interesting. That goes really deep into it. There's very few meters in the world that can even measure that, by the way. Let me go back to the beginning. Incandescent also can flicker too, but they always have that warmer temperature to them, regardless. Even if we went for a hundred watt daylight bulb or something like that, people are still putting them on dimmers and in a flood lamp. It carries a nice soft light. It didn't really have any of the blue spectrum anyways. That's why incandescent has such a good wrap to it, because it's a successful light, but it's over a hundred years old. We've outgrown that.

20 years ago when LEDs really started hitting the market, nobody understood it. They're just pumping out all these light bulbs, 5K, 6K, 3,800k. PE contractors are picking them up from their suppliers and their home depots and they're just putting all these LED, nice, flush mounted lights throughout a modern home and putting them on a dimmer on top of that. They don't even know 'cause they're not even picking the right temperatures or even some that do know. They'll have the temperatures, but it was just not a good program. It wasn't a very smooth transition. However, they were doing a lot of studies higher up even before the US Green Building Council came out and all these different councils. They were doing study on lighting for different types of hospitals, care and extended. And they knew that blue flickering light was an issue.

So the industry started addressing circadian, probably about 15 years back. There were circadian applications. My version of the explanation of circadian if you have the temperature. Say the sun rises at 1800K, which is a warmer temperature. At noon, it goes to, I think even above 10K. It has actually a blue spectrum to it. It's very bright with blue. So it's activating serotonin, and suppressing melatonin, which is good. You want that too, right? That's the natural light and this whole circadian roll. And then of course the sunset at 1800k, again, that orange, amber, it's calming. It's slowing down the whole serotonin and activating melatonin, which is preparedness for sleep. And it doesn't flicker. Understanding that is also the nanometer wavelength.

I know you're all into this too. So from more of your bluer spectrums, you're all the way down to like 380 nanometers. This is a chart, it's a nanometer wavelength chart, all the way into ultra you violet or infrared light that you can't see on that spectrum reaches all the way up to say, almost 900 nanometers. You can't see it, right? A lot of

the lights that we see today, the circadian lights, there's different companies that are doing some cool lights and whatnot, but they're matching, say this high 600 to like a 700 nanometer. So what they're doing is they're adjusting the color temperature and they're adjusting nanometers. That's it.

That's the physics of the light, but unfortunately, LED gets a bad route because of what I was just explaining. People were putting them on, putting the right temperatures in there, the frequencies were just off. They're putting them on dims. It was just a bad combination. So, moving forward, I said when I got back into the business and knowing that I was coming in this from a wellness application, of course circadian was a big one. Everyone has their blue blockers on and people are screwing in red light bulbs and everyone's wanting incandescent. And I'm like, no, there's something so much better than this.

I actually introduced circadian lighting from LED, from the more the commercial application, bringing it into residential because there's a big disconnect from commercial to residential. If you're a commercial contractor, you don't want to do residential and vice versa, but the worlds don't really mix. It has started to change now. So what I did is I just took the world of commercial circadian applications and then I brought it into the residential sector. Let me take it. This is really cool. You're gonna appreciate this. So through all of my work, 'cause, I'm a researcher myself, it's my job to research all these different materials and all these different systems to be able to share this information. But it never stops, right?

What's beautiful about this is one relationship, one exploration builds to the next, builds to the next. It builds until eventually you understand every technology that's almost out there. I'm talking about modern technology that's available for commercial or residential construction. Then I stumbled upon a company called Color Beam. A lot of people will hear me talking about color beams and what Color Beam did 15 years ago. This is genius. This is a super cool takeaway for everybody. They took their lighting system, that's a one 10 volt lighting system 'cause if you have a two story home or single story, whatever, and you have the can recess light, you still have 110 volts going to when it's on your bed above on the second story sits right on top of all this lighting if you didn't do the layout right.

Again, you're around all this mf. The goal is to minimize. Nature's the gold standard. We're trying to minimize. It just ties into the EMF piece. So what they did, they're like, well, we just wanna make it easier for our installers. We're gonna take all of our light and power it with a CAT six cable, an ethernet cable. That's how they power their light. It's a low voltage. There's no EMF that goes that line. All their controllers, the way that they control the light is on a cap six cable. So now here they've created a whole infrastructure of a lighting system on a low voltage system. It's genius what they did by doing that because they've eliminated the high voltage for everything.

But also they went a degree further because they were in the luxury sector. They were working on luxury homes, but they were also doing a lot of work for recording studios and audio visual and things like that. So the lighting had to be very precise. They could adjust the nanometer, the temperatures. It's all built right into the check set, right into the LED bulb. They're meeting the circadian aspect, but also they couldn't have a flicker. The flickering through the system comes through how they convert the power and their power adapter to their DMX controller.

Well, what they do is they decouple any dirty electricity from the power adapter through the coupler into the whole infrastructure to where there's no line noise. So now we don't have any dirty electricity. We don't even have any high voltage. It's all a hundred percent low voltage. We don't have a flicker. They've dialed the circadian aspect of light to the finest degree of science. They actually hire circadian biologists that actually do their circadian studies for them, so they have that third party data to share. It's awesome.

Ads 54:24

I wanna say a couple of words about one of our Myers Detox Podcast sponsors, Qualia Senolytic. It's a cutting-edge formula designed to help your body eliminate senescent cells, also known as zombie cells. These outdated cells hang around draining your energy and slowing your workout recovery, and causing all kinds of havoc and mayhem. Backed by clinical research, Qualia uses nine plant-based compounds that support joint comfort, sharper focus, and better aging naturally. And here's the kicker, you only have to take it two days a month.

It is simple, backed by science, and validated by research. You can try it risk-free with a hundred-day money-back guarantee. Go to qualialife.com/wendy and use code Wendy to get 15% off. You wanna try Qualia Senolytic. This is something that I've been taking. It's part of my anti-aging protocol, because getting older doesn't have to feel like it.

Dr. Wendy Myers

Oh, wow. I need to up my game in my home clearly. I'm like, well, I thought I was doing pretty good. I got the Hearth Lights and I thought I was doing great.

Brian Johnson

Well, that's why I'm here is to bring the information to the forefront

Dr. Wendy Myers

The Hearth lights are a start there.

Brian Johnson

There's other companies, just to shout out names out there, and I have no affiliate associations. I help consult with a lot of these companies, but Blue Blocker lights. They came out with a really cool system, you just toggle the switch three times. So you get rid of the dimmer, you toggle the switch three times and it does three different light settings goes from 18 to like 25 to 3,800 or something like that. They did a really nice job of their different selections.

They have flood lamps, they have the regular light bulb, they have new can for remodel or new construction. I think they really took it to the highest degree converting an LED to a safe light that doesn't flicker, that's non EMF. So Blue Blocker lights are a good one, on a budget.

Dr. Wendy Myers

Okay, great. Are you saying you recommend the LED lights that are at Home Depot? Do those pose an issue?

Brian Johnson

That's a good question. Thank you for bringing that up, because I actually talk about it also in a video I act. I have a high dollar. It's a photo spectrometer and it measures all these nanometers. It measures the frequencies. It measures the flicker rate, the temperatures. It's a very expensive meter. And so of course I geek out and I have fun. I love meters. And so I'll take the meters, the Home Depots. I have my own shop. I'll bring lights and I'll test them. I was actually shocked by even these consumer grade lights, I've tested more of just the vintage ones, the see-through has the really cool filaments in it too. It looks like it's an old Edison light bulb kind of a thing.

I've measured the clear ones, not on a dimmer, just on an on and off switch and the flicker rate's really low. It's extremely low. They have a very low flicker rate and the temperatures on their vintage. I'm just gonna use Home Depot for example. There's one called the Vintage. And the vintage bulb has like an 1800k spot on. There's no blue spot Kerin or anything. So you can go right here to Home Depot and buy the bulbs right off the shelf too. I measured them. I know.

Dr. Wendy Myers

Okay, great. So there's a lot of hysteria over nothing over the LED bulbs.

Brian Johnson

Well, only because, and I definitely don't want to downplay it, but there was a merger of trying to get the technology figured out. It's not like people carrying around a $3,000 photo spectrometer or a biohacker or builder geek like me that's gonna go around here and start measuring all this stuff. There's a lot of technology that's out there that's safe in my opinion.

Dr. Wendy Myers

Let's talk about water filtration. There's a lot of people that have little water filters in their sink, but I don't think they realize how important it is to do water filtration for their entire home, because taking a shower every day are more than once a day, you're getting a lot of exposure in the water and the steam that you're breathing in. Can you talk about that?

Brian Johnson

I love water filtration. I work with a company, Natural Actions. I found Jonathan Butts the owner five years ago at a biohacking conference. I was a builder. I'm starting to put together my manufacturer's list of technologies that I wanted to have in the whole home. I'm a builder. Everything for me is the whole home. It's just not a point of use. It's the whole entire home. Natural Actions has a whole house structuring device. It's really cool, in my opinion. It's one of the most powerful ones called the MR 24, the Magna Rain. It has these polar magnets in it that are dural tuned dialed, and it puts all this energetic frequency.

They developed that for the whole house. So you got your line coming in the house and you're structuring it now. Natural Actions did high level filtration, but for hemp farms and industrial, they wanted to do the structured devices for portable. They wanted to do a whole structuring device so people could structure the water. The whole idea of structuring the water is to bring it back to that coherent state, how it absorbs into the body, how it communicates, and basically impress this good frequency and all that stuff. I'm sure a lot of our listeners know a lot about this. Not to get too much into that, but from a water structuring standpoint, what I loved is that they literally had one ion chamber.

It was a one inch line. You'd literally bring the plumbing right into it, right back out, and you're literally structuring all the water for the whole house. I'm like, oh, this is awesome. I invited and worked with them on developing a whole house filtration system, and through that, just to share with the audience here, it's definitely not just one approach that fits all sizes. We have different cities, full pools from different wells, different times of the years, and their water profiles are always changing. And of course, we're not gonna rely on their results on what they share with the public. We have different depths, different places across the country means different organic materials, uranium, arsenic, mercury, all these different things that are on the water table

Every project that we work with, we're doing water tests first and foremost. Everyone, you have to test your water. We wanna know the profile, what's the total dissolved solids, what's the pH, and what's the hardness. There's these THMs, there's all these

different things that we're looking at as the water profile itself. Then we look at, what's the list of all the inorganic types of materials that are on the water. So if it's from the city, it's gonna be the fluoride, it's going to be all the different types of disinfectants that they're putting back into the water. So we're looking at the profile, but we're also looking at what's in the water.

That's why it's really good to do well in a test. But there's only so many filter manufacturers out there in the world. What I really liked about Natural Actions is they are really sourced and work with the best filter manufacturers right here in the country. Other countries knock off stuff that you're gonna get on Amazon. This is high level filtration. What they do is they'll select based upon the water profile. It's gonna be this kind of a carbon filter. It's gonna be a nanocar, it's gonna be a nano around, which is gonna pull out bacteria, cysts, all types of parasites, and things that are in the water. They have multi-stage units. It goes through different levels of pre-filter or even if there's an iron issue, we run into a lot of iron issues, but iron bacteria issues, their specialist even gets on with the well companies and takes different approaches on how to shock wells. They go really far with this. It's custom designing a filtration system that's structured. And they use technology like passive. This is a really cool one for the audience here.

I know this is long, but water hardness, typically treated with a water softener with salt heavy metals, taking all the calcium, dumping it, sodium, which isn't good, like on copper plumbing. There's just all kinds of reasons and there's just so much better technology out there than a water softener. They have passive, these catalytic, magnetic array chambers that the water goes through and it changes the whole structure of the water and it softens it. It's a conditioner, so the water gets conditioned. Say you have a water hardness issue, the water gets conditioned or whatever the case is going on prior to filtration goes through this level of filtration for any size home.

By the way, let me bring in the engineering aspect. We always have to look at pressure and we always have to look at flow rates, which is gallons per minute. We wanna know what the size of the line coming home is. What's the size of the home? What's the demand of water usage for the home? Because talking about under sink, like ROS and things like that, you can do an under sink RO and it has the little faucet

like you see on top and it just comes out in a trickle. That's because the water can only filter at such a high rate. I'm kind of painting a picture here. Can you imagine if you had to have a whole house RO to put the pressure that everybody wants their convenience and the showers and dishwashers and washer machines and things like that? You would have to have a very big system.

Let me talk about RO since I went down that rabbit hole. The thing about RO reverse osmosis versus just your standard type of MEChA mechanical filtration I started out with, RO is going to take out. They claim 99.999%. That's a pretty tall claim. And maybe you could do that directly under a sink, but from a whole solution, you're not gonna be able to get 99.999%. But definitely it'll advance more than just a standard mechanical filtration.

However, you've got flow rates, that's a concern. You've got a price point, that's a concern. And then also you've taken that water and you've stripped it completely of everything. No mineral, no coherence. It's kind of in a dead dormant state, if you will, and that's all you have. I'm sure a lot of your clients understand that. Hey, with RO we know, of course we remineralize it, we do all these things. Natural Actions does a lot of custom design systems where they'll design a large RO on a large scale, but remineralization is a big key to that and then to restructuring the water, putting it back to its coherent state again.

It's quite a process. It's expensive. I started off with the basics of what we see more of. Unless somebody has the price point to go to a full system. RO gets the bad name, gets a bad rap for it wastes water too. So you're wasting water, you're stripping the water of everything, and then it's unstructured. Those are the three downfalls of RO. But again, I just give solutions that you can unwind or undo that. It gets costly.

ADs 1:06:43

For anyone listening who really wants to detox their body, go to heavymetalsquiz.com. I created a quiz for you. It only takes a couple of seconds and it’s based on some lifestyle questions. You can get your toxicity score and get a free video series that answers all of your frequently asked questions about how to detox your body. Check it out at heavymetalsquiz.com

Dr. Wendy Myers

I'm sure everyone listening is thinking, God, my house is a disaster. My house is like not even coming close to any of these preferred specifications for non-toxic hubs. But that's why I wanted to do this show to help people. It's almost like health porn where you're like, oh, this is like the top of the line that you can get to or you want to achieve. We all have to have some goals in life.

Brian Johnson

Sorry to cut. I just had to share this piece. You brought up an interesting topic. It's like here I'm sharing all this information, but it's out there. I'm just bringing it out. It's there if we have the budgets for it. However, going back to that specification, when I'm working with the architects and I'm writing out the specs and the technology, I always do give a good, better or best. So I was glad that you said that because I don't wanna scare everybody to think, oh, this is so price point, this is out of my budget. I'm not gonna be able to afford this.

Well in my specs list again,, I'm just giving, hey, this at least meets the non-toxic guideline. Or it's a safe wiring method or it's a safe light bulb, whatever, all the way to the elaborate building materials that are non-toxic, that are breathable, the concrete methods of construction that I'm talking about, all the way to the color beam lighting systems. So, I do give a full array 'cause we can always start off smaller, especially if we're on a budget. We could start off less. We can choose what to prioritize. If a client's like, Hey, look, EMFI, we wanna look at everything, right? But, if EMF is the biggest concern let's put more money into the EMF and less money into the lighting and that's cut.

If somebody's building, they're like, Hey, we value the idea of this mass wall construction 'cause there's no air cavity into it. We can eliminate mold and just do a good roofing system and no EMF. That's our concern. Everything's value engineered, to make this obtainable for everybody. Even in a renovation, we do a lot of renovation work. Everything that I talked about in construction can be done in renovation as well.

Dr. Wendy Myers

Okay, great. Well, Brian, thanks so much for coming on the show. Why don't you tell us what your website is and how people can work with you?

Brian Johnson

My website is spelled senergy360.com. I'm on Instagram. I've been working on being more proactive and getting more videos out there to educate everybody. Instagram is the same thing, Senergy360. That's the best way, and of course, message me and reference the show. You can schedule. You can message me. We will definitely connect.

Dr. Wendy Myers

Well, Brian, thanks for coming on the show. Everyone, thank you so much for listening to the Myers Detox Podcast every week. I'm Dr. Wendy Myers. I love bringing you guys lots of this health porn to help you have a goal. We all need to have a goal that we need to work towards. I'd love to give you information to seriously help you achieve the health that you deserve. I know a lot of people are living in sickness and really don't have any awareness of that. Hopefully, this show gave you some ideas as to what the problems might be. Thanks for tuning in every week. God bless.

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