#31 – Detox in a Toxic World, Part 2: Reducing Exposures at Home and the Home as a Health Ecosystem Transcript

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Introduction to Detox in a Toxic World

[music] >> Welcome to the Trip Lab. Kitchen table conversations about integrative medicine and psychedelics. [music] I'm your host and attending physician, Dr. Mary Ella Wood.

Hi everyone. Welcome back to the Trip Lab. Today, we are doing part two of our five-part series called detox in a toxic world, where we are taking a deeper and more evidence-based look at environmental toxins, how they affect health, and what we can realistically do about them. As a reminder, I also have companion guides to all of these episodes, and you can find them on my website at dr.maryellawood.com/guides.

That's d r m a r y e l l a w o o d dot com forward slash guides. So, last week in our first episode, we laid the groundwork. We talked about the major categories of toxins in modern life, like plastics, pesticides, mold-related toxins, heavy metals, and food additives. And we talked through the main ways that they affect the body, including oxidative stress, hormone disruption, inflammation, mitochondrial dysfunction, and cumulative burden over time, which is really important. We also got into what I think is the most important question in this whole conversation, which is why some people seem to be much more affected by toxins than others. So, check out that first episode if you want a deeper dive into all of that. But today, we are moving from understanding the problem to actually doing something about it. And the first thing we can do is start to reduce our exposures to these environmental toxins. Specifically in this episode, we're going to focus on how we can start doing that in the place where many of us have the most control, which is the home. So, we're going to view the home as a health ecosystem that can either contribute to health and wellness or disease and unwellness. But before we get into all of the things that you can do, I also want to highlight again one concept that I think helps make the whole conversation feel a lot less overwhelming. And that is the idea of the total toxic burden. Because truly, our goal here is actually not to be perfect and to not eliminate every exposure. That's simply impossible and can also create a life of living in hyper-vigilance, which is also not healthy. So, the idea of the total toxic burden is that you have all these cumulative exposures coming in, whether that be from environmental toxins, food, stressors, and nervous system dysregulation. So, all things going on here, but it's going to look different for everyone. So, overall, it helps us understand how all those little different toxins add up over time. So, that includes repeated exposures, but also includes genetics and how well the body is already primed to get rid of those exposures.

Understanding Total Toxic Burden

So, if we think about that concept and really frame it in that way, our goals and what we can do becomes much more realistic. So, small repeated exposures may add up, but that also means that small meaningful changes can add up, too. One more thing to really highlight before we begin is that everything we're going to talk about today is only one part of the equation. There's lots of things that we can do to reduce exposures. Yes, and we're going to get into that. But, we can also support the body's natural ability to detoxify and excrete these compounds, too.

So, that's going to be part three. That's next week, so we will get all into that very shortly. So, with that, let's get into today's topic. So, to start, like I mentioned, I want to help you reframe your home as a health ecosystem. So, it's the environment that our bodies return to for rest, recovery, repair, nourishment, and social connection. And for a lot of you, it's probably your workplace, too.

But, without us even realizing it, it can become a place where the air we breathe, the water we drink, the products we use, and the materials around us are actually slowly adding to our total toxic burden. So, let this episode and the companion guide on my website be a guide to support you on your healthy home and healthy body journey.

And you actually don't need to spend lots of money or redo your whole home to start feeling better and detoxifying your life. So, I want to start with some practical, little to no cost things that you can do. One of the easiest things is

to take off your shoes before entering the home.

So, shoes track in all kinds of things from the outside. So, dirt, heavy metals, pesticides, and chemicals like organophosphates. So, something so simple as just leaving your shoes at the door can really reduce what you are bringing onto your floors and into your living space. Another easy, no cost one you can do today is to be more mindful with plastic food storage containers.

So, if you're not ready or don't want to spend the money to swap everything over to glass yet, that's totally fine. But, things you can do is don't microwave food in plastic, and don't run plastic through the dishwasher over and over again at least, because heat and wear increases the likelihood that those plastic particles and associated harsh chemicals can leach into the food. So, a simple workaround, if you store food in plastic, transfer it to glass or ceramic before reheating, and wash all plastic containers by hand when possible.

Another easy thing that does not require buying anything is get rid of air fresheners. Unfortunately, same goes for many scented candles, especially ones made with artificial fragrance. If you do enjoy having your home smell good, a better option would be a simple essential oil mist, or choosing candles made from beeswax or soy. So, just anything without synthetic fragrance.

Next, talking about water. If you're not ready or don't want to invest in a water filter yet, one simple thing you can do is let tap water run for a minute or two before using it for drinking or cooking, especially if the water has been sitting in old pipes. So, this can help reduce some of the contaminants that may leach out from that plumbing. Along the same lines as that, I do want to briefly mention here hydration and sweating, which [clears throat] we'll definitely get into more in the next episode, but something easy that you can start today.

So, drinking more water helps support the body's ability to process and excrete waste. And sweating, that can be through exercise, steam room, sauna, anything that gets you sweating can also help this process.

Making the Home a Health Ecosystem

A few other very simple steps that I would add here are to open your windows when the outdoor air quality is good. Because even just a little bit more ventilation can help lower indoor chemical buildup. Along the same lines, dust and vacuum regularly, especially if you have kids or pets, because dust actually is one of the ways many chemicals and particles accumulate in the indoors.

Another thing you can do is be more mindful about receipts. So, the thermal paper used for receipts is one of those surprisingly common sources of bisphenol exposure. So, either don't take the receipt if you don't need it, or wash your hands if you're going to be handling receipts.

So, those are just some quick, easy, small, high-yield things that you can do today to start reducing your total toxic burden. So, from there, I want to level it up a little bit, and we'll chat through different areas of the house, different things you can do. This will be a little bit more extensive than those quick, easy swaps that you can do. So, we'll start with food storage, and along those lines, food choices. Then we'll also look at the kitchen, the pantry, cooking utensils, and things like that. So, we already mentioned if you're going to use plastic containers, don't dishwasher, don't put in the microwave. If you want to level it up, swapping from plastic food containers to glass really is a good idea. Because even if you're not microwaving food in plastic, microplastics and plastic-associated chemicals can still make their way into food over time, especially with repeated use, heat, wear, and fatty foods even. And the same idea applies at the grocery store, too. So, if possible, it can be hard to do, try to buy food that is not wrapped in plastic. If that's unavoidable, just remove food from plastic packaging once you get home. So, a great step you can do. Also, consider bringing your own cloth produce bags, another simple way to reduce just one more layer of plastic exposure. Tea bags, unfortunately, also fall into the category, and they also contain high levels of microplastics. So, a better swap for tea is to choose loose-leaf tea and do it in a French press or something like that. Next, we have to talk about nonstick cookware.

So, unfortunately, as convenient and as nice as it is, the chemicals that make the pans nonstick are part of the broader PFAS family or what people call forever chemicals. So, these chemicals, unfortunately, are very persistent.

They accumulate in the environment and in the body, and they've been linked to things like hormone disruption, immune effects, metabolic dysfunction, and even some cancers in human and environmental research trials. So, at the very least, if your nonstick pans are scratched, old, or chipping, I would definitely replace them. Now, better swaps would be stainless steel, cast iron, or high-quality ceramic, but definitely definitely avoid chipped nonstick pans.

The same goes for cooking utensils. So, instead of those black plastic or older synthetic utensils, swap for wood, bamboo, silicone, or stainless steel.

Now, a little more on food storage and pantry items.

Low-Cost Ways to Reduce Exposure

So, beyond storing food in glass, ceramic, or stainless steel, there are also a few simple storage tips that can help reduce your exposure to mycotoxins.

So, things like grains, nuts, seeds, flowers, and coffee beans that can be contaminated with mycotoxins, store them in airtight containers. For even better, put them in the fridge or the freezer. So, that helps reduce moisture exposure and slow the growth of mold if there is mold there. So, I think it's especially important if you buy in bulk or tend to keep pantry items around for a really long time. Next, let's get a little bit more into food choices.

So, we'll definitely go all into which foods actually support detox in the next episode, but here I want to talk a little bit more about the whole organic versus nonorganic question. So, organic actually does not mean pesticide-free.

First misconception there. It does mean the food was grown under USDA organic standards, which does restrict most synthetic pesticides and fertilizers, but trace pesticide residues can still show up from environmental contamination or pesticide drift. So, their cutoff is if prohibited residues are found above 5% of EPA tolerances for that pesticide, the product cannot be sold as organic.

So, there is some level of control there. However, I think the bigger limitation is that these regulatory thresholds do not fully capture the real world problem of small repeated exposures over time, multiple chemicals at once, cumulative burden, and individual susceptibility. So, it's looking at single dose. With that though, I think a really practical rule of thumb here is to use the EWG or the Environmental Working Group's Dirty Dozen and Clean Fifteen use. So, every year they put out a list of the 12 produce items with the highest pesticide residues, and also the 15 with the lowest. So, the idea is that if you don't want to do all organic and you want to prioritize buying organic for the foods that have the highest potential for pesticides, choose organic for the produce on the Dirty Dozen list. So, the ones that have the highest pesticide residues. And if you want to save money, the produce on the Clean Fifteen list are actually pretty okay to buy conventional. So, they in general have lower pesticide residues. So, this is not a perfect system, but I think it's a really practical one and can help you save money where it's most important.

I'll also add here that choosing organic probably matters more for some non-produce foods. So, especially eggs, dairy, and meat because pesticides and other persistent chemicals can accumulate up the food chain and are often concentrated more in animal fat. So, if you're buying meat, choosing leaner cuts will really help reduce that burden. And when possible, choose grass-fed or pasture-raised, which will lower exposures and can also improve the fatty acid quality depending on the source. When purchasing fish, my rule of thumb is if you can, lean toward wild-caught over farmed. And this is mainly because farmed fish may be exposed to a different contaminant profile through feed, crowded conditions, and aquaculture practices.

That said, I am not perfectly black and white about this because unfortunately both wild caught and farmed fish contain contaminants depending on the species and the environment. And fish are such a great source of omega-3 fatty acids that I'm not super picky. I'd rather people eat fish even if it's not a perfect type of fish. Something that you can think about though is to choose which fish thoughtfully. So smaller fish that are lower on the food chain tend to have lower mercury burdens and pretty high levels of nutrients and omega-3s. So sardines are a classic example. When it comes to shellfish, I would definitely be more cautious. So shellfish can accumulate contaminants

from surrounding water including heavy metals, microplastics, PFAs, and other persistent pollutants. Unfortunately because a lot of them are filter feeders. I get I'm not going to tell everyone to avoid shellfish forever, but be more selective here especially if you're really trying to reduce your exposures to toxins. So I'll probably keep saying this over and over again, but my point here is to not make food or choices feel stressful. I'm just presenting a lot of options that you can do and you make the best choices for you. Okay, so moving on from the pantry, the kitchen, food, let's talk more about the structural and atmospheric aspects of the home. Starting with the air because indoor air quality is one of the things that people often don't think about enough even though we're breathing it all day and all night. So first I'll define a couple terms here that are going to be important in this conversation. I think the two most important ones to talk about are VOCs and particulate matter. So VOCs or volatile organic compounds are chemicals that easily evaporate into the air from things like building materials, fragrances, cleaning products, paints, and other household products.

Particulate matter is a little bit different.

Kitchen, Pantry, and Food Storage Swaps

So that refers to tiny particles floating in the air like dust, smoke, soot, and other microscopic debris that can actually be inhaled into the lungs. And the EPA notes that indoor air pollutants can include both particles and gases. So both VOCs and particulate matter. And common sources include cleaning, secondhand smoke, building materials, furnishings, and consumer products, which we'll get into in a little bit here. So, when we really think about reducing air-related exposures in the home, a lot of it comes down to reducing the things that can add to that chemical and particulate load.

So, in the beginning I already mentioned artificial air fresheners and scented candles. So, I'm definitely going to keep those on the list of eliminate or minimize at least. Incense, unfortunately, is another one that I would use sparingly because while it definitely feels natural, grounded, it can generate a lot of indoor particulate pollution.

So, use sparingly, open windows if you're going to use it. Again, make make the choice that's right for you. Along the same lines, smoking inside the home, definitely not a good idea. Major source of indoor air pollution. Cleaning products are another one, but we'll get into that in a second here. So, some other tips for air. So, when you're cooking, use your kitchen exhaust fan, especially if you are searing, frying, or cooking with gas. Another thing you can do is vacuum or dust regularly, which I mentioned in the beginning, because dust is one of the biggest ways that particulates and chemicals accumulate indoors. I also mentioned in the beginning opening windows, an easy thing to do, especially when outdoor air quality is good. So, from there, kind of next steps, taking a little bit further, getting a little bit more pricey, more involvement here. This is where we talk about air filtration. So, there's a lot that goes into this, but the two main things to know here are that HEPA-type filtration filters is the best for particles, and activated carbon can help more with gases and odors like VOCs. And like we said, indoor pollutants include both particles and gases. So, just keep in mind that HEPA filtration is really just aimed at the particles, not the VOCs.

So, if VOC reduction is your main goal, a purifier that also includes activated carbon can be really helpful. So, if you're going to invest in an air purifier, I would do a true HEPA air purifier, especially in the bedroom where you spend so many hours overnight sleeping. And I'll also mention here that in the companion guide on my website, I include lots of brand recommendations, none of them sponsored, just ones that I have looked into and I think are really good quality. You can also check out the EWG or Environmental Working Group for lots of guides, resources. It's such a great resource. So, air purifier, choose a HEPA one. Along the same lines though, if your home has central heating and cooling, it's also worth paying attention to your HVAC filter. So, replacing it every 1 to 3 months is a good rule of thumb. And if your system can handle it, I would also try to get a MERV 13 or higher. So, that's a rating that describes how well a filter captures particles. And 13 and higher can reduce indoor particles in some cases by as much as 95%. So, I'm pretty good. And while we're on air and air quality, I do want to briefly mention mold and moisture, because this is one of those home issues that is much easier to prevent early than to fix later. So, the main places to look around your home are obvious moisture-prone areas. So, bathrooms, basements, kitchens, laundry rooms, around windows even, under sinks. So, essentially near any area that might be exposed to moisture or water. So, look for actual visible discoloration, can also pay attention to musty smells, peeling paint, warped materials. So, all things to look out for. So, if you see any of those, the biggest thing here is to address moisture quickly. So, fix leaks, use bathroom fans. You can run a dehumidifier if needed, and don't let damaged

materials sit for very long. So, small visible mold on hard surfaces can just be cleaned appropriately, but bigger problems like recurrent moisture or mold tied to water damage usually need more serious remediation.

Okay, so that was air, air quality. Next, we'll talk about water. So, I'm actually going to keep this section relatively brief because I am definitely not a water engineer, and there is a lot that we could talk about.

Choosing Lower-Toxin Foods

But drinking clean water is something that can really make a positive impact on your health. Because depending on where you live, water can be a source of exposures to things like lead, arsenic, PFAS, chlorine byproducts, nitrates, microbes, and microplastics. And there may even be more specific things in your local water supply. So a recent study showed that 45% of tap water, or drinking water, in the US contains PFAS, so those forever chemicals. So there's actually a really easy way to check your specific water. So you can use the EWG tap water database and just enter your zip code. So that's going to tell you what specific contaminants you need to filter out.

Then we can think about water filters. And when it comes to water filters, the main thing to know is that different filters do different jobs. So a basic activated carbon filter can help with things like taste, odor, chlorine, and some organic contaminants. Then you have more advanced filters certified to NSF or ANSI 53 or 58, which can help reduce contaminants like lead, PFAS. Then we have reverse osmosis, which tends to remove a more broad range of contaminants, including some metals and other dissolved substances. So check out the EWG, look up your specific water supply and what specifically you need to filter out.

Then choose a water filter that is certified for the contaminant that you care about most. In general, I would say a reverse osmosis filter is probably going to get most everything. But an important thing to know is that it also removes good things like minerals from the water. So you can certainly add minerals back with a healthy diet, but I do want you to keep that in mind as well. The other unfortunate part of reverse osmosis is it does waste a lot of water too in the process. So just briefly about water filtration, I'm not going to get too much more into that. But in general, I think drinking water filtration is probably the highest yield place to start.

Cuz that's the water that you're consuming every day, you use to cook with. But kind [snorts] of taking it a step further, you can also consider shower filters, bath filters, especially if you bathe little ones in the bath.

And for those, there's a lot that you can look into, but I would start with one that at least removes chlorine. Okay, moving on from water. So next we're going to talk about cleaning products. And this is a huge category, and I'm talking about all cleaning products. So surface cleaners, window cleaners, dish soap, dishwasher pods, laundry detergent falls in here, floor cleaner, bathroom cleaner, toilet cleaner, disinfectant spray, so all of it. So unfortunately, a lot of these products contain artificial fragrance, volatile organic compounds, surfactants, preservatives, dyes, bleach, ammonia, and disinfecting agents specifically have quaternary ammonia compounds as well. A lot of these products are also contaminated with phthalates, especially when fragrance is involved, because the phthalates are actually used to help the scent last longer. So cleaning products get into our bodies in a lot of different ways. So we may not be technically consuming them like we would food, but we're using them to clean what we eat with. We're touching them, we're absorbing them through repeated contact.

Indoor Air Quality and Mold Prevention

Laundry detergent is a good example because it stays on the clothes, towels, and bedding, so it sits against our skin for hours. So there's a lot that we can look into here, and it can get really overwhelming. So if you want to really get into it, I would definitely look at the label first. And I think a simple rule of thumb is the shorter and clearer the ingredients, the better. Now that is just a rule of thumb, but consider that. A few specific things that I would try to avoid or at least reduce are fragrance, perfume, aerosolized sprays, heavily dyed products, bleach heavy products, ammonia, and in general ingredients ending in onium chloride. I think fragrance is probably one of the most important ones because it can hide a lot of chemicals under one umbrella term. So it may not specifically list all those chemicals, but they're there.

I would also urge you to be a little cautious with products labeled antibacterial or disinfecting because those

actually tend to contain the most potent toxins. And the truth is, for day-to-day life, most surfaces do not need to be disinfected constantly or daily.

So, again, on the companion guide, I have a bunch of product recommendations, brand recommendations. None of them sponsored, just all that I've looked into. You can also check out the EWG's guide to healthy cleaning. They have lots of great resources. You can check all of your products, see what rating it is, and find non-toxic alternatives. It's such a great resource.

And one other thing that I recommend to my patients when they're going through their cleaning products and skin care products that we'll get into next, is you don't have to throw away everything and buy all new things. As one product runs out and you're getting ready to purchase another one, check the product that you're already using before you purchase it again. See if it's non-toxic. If it is toxic, then maybe just choose a safer alternative, which are usually actually comparable in pricing depending on the brand that you choose. You could also consider starting with the ones that you use most often.

So, things like laundry detergent, dish soap, all-purpose cleaner, because those are the products creating the most repeated exposures in the home. Okay, moving on from there. Next, we'll get into personal care products. So, another category, maybe even arguably the most important one, where exposure can really add up simply because these are products that we use every single day and we put them directly on our skin. So, the skin is porous and it really does absorb more than you think.

And this is not just some woo-woo topic. We actually know this in medicine. So, think about birth control patches, HRT patches, even nitro paste that we use in the ED for heart attacks.

So, all those medications are not designed to just act locally on the skin. They literally absorb into the bloodstream, which is how they work. So, toxins from personal care products do the exact same thing. And even if the dose is small, that can really add up over time. So, things to think about swapping: body wash, shampoo, conditioner, lotion, moisturizer, serums, makeup, deodorant, perfume. Perfume is a big one. Hair products, toothpaste, mouthwash, nails, all of it. So, names you want to look out for on the labels. So, avoid things like fragrance, phthalates, parabens, preservatives, formaldehyde-releasing ingredients, PFAs. All these compounds act as endocrine disruptors, irritants, or sensitizers. And some of them actually even carcinogens or cancer-causing agents as well. The best resource for this is, again, the EWG's Skin Deep database. So, it's actually really amazing. You can just type in the product that you use, and they have pretty much any product.

Water Filtration and Cleaning Products

I've yet to find a product that I've been using that they don't have on their database. And they'll give you a hazard rating based on available data. So, it'll be either zero, which is EWG certified, up to 10, really harmful, really toxic. And it'll break it down and tell you why. So, was it more of an irritant? Is it an endocrine disruptor, immune dysregulator, carcinogen or cancer-causing agent? And it'll tell you why it has this rating, what the evidence level is. So, overall, an excellent resource that I truly cannot recommend more. Another unfortunate thing to think about is that products that say "clean beauty" or "non-toxic" do not necessarily mean clean or non-toxic. So, if you shop at Sephora, which I certainly do, they have their Clean at Sephora label. But if you actually fact-check those Clean at Sephora products in the EWG database, a lot of them are actually not clean and contain toxins. So, Sephora's program just has a specific list of chemicals.

So, things like parabens, sulfates, phthalates, and mineral oils. But it's a small list compared to all the potential things that could be toxic. So, overall, use the EWG Skin Deep database before just assuming a product is actually low toxin. Okay, so last category I want to mention in the home is furniture, textiles, household materials, and actually clothing, too. So, this includes things like upholstered furniture, mattresses, rugs, curtains, vinyl products, waterproof or stain-resistant fabrics is a big one, synthetic clothing, and other household textiles.

So, many of these materials also contain and shed substances like flame retardants, PFAs, VOCs, and microplastics. So, over time, those chemicals and particulates can migrate into indoor dust and air, and we actually end up absorbing through our skin. So, particularly with clothing, sheets, bedding, things like that. So, many

reviews now identify textiles and furniture as actually a major contributor to microplastics in indoor air and dust. So, for clothes, unfortunately, many modern clothing is made from synthetic fibers like polyester, nylon, acrylic, and spandex. And these materials shed microplastic fibers, especially with wear and tear and frequent washing. A lot of furniture or upholstered furniture is made with flame retardants and stain resistant chemicals like PFAs, which we're sitting on and also migrates into household dust over time. So, again, you do not need to replace your whole house or your whole wardrobe, but if you're thinking about buying new items, this is a category worth being just a little bit more intentional about.

So, look for natural fibers when possible, of course, like cotton, linen, wool, or hemp. I think especially for things like bedding, towels, and clothing, so things that are sitting directly against the skin.

Personal Care and Household Materials

Specific things to be more thoughtful about removing are stain resistant, unfortunately, wrinkle resistant, unfortunately, waterproof, unfortunately, or other heavily treated fabrics.

So, those very useful features actually come with a lot of hidden chemicals. Okay, so a little preview there, some things you can start to do to reduce your exposures to toxins. And as a reminder, I have companion guides to this podcast series on my website at dr.maryellawould.com/guides.

So, d r m a r y e l l a w o o d.com/guides if you want all the details. So, I'll summarize all the things that we talked about here, and link the studies that I mentioned, provide a step-by-step guide to reducing exposures to toxins, and provide some brand recommendations as well if you want to look into that. But as we close this episode, you can see that there are a lot of things that you can do.

But again, I want to really emphasize that this is intended to be a more or less list of high-yield possibilities. It's definitely not an exhaustive list, but I just want to give you some options so you can think about where in your life it is more feasible to make swaps to start reducing your exposures to toxins. And remember, small changes over time really make a difference. Then moving on from that, we have a few other pieces of the puzzle that we're going to cover in the next part of the series. So, next week in part three, we're going to talk all about what we can do to support the body's natural detox mechanisms. So, what I've been seeing and why I created this whole series is that way too often in wellness spaces, {quote} unquote detoxing is about doing something to the body, giving a detox supplement, which we'll get into more in part four. But the reality is that our bodies are actually detoxifying all the time. We excrete waste and toxins, most obviously through our GI tract. Our liver and gut helps this process, but also our kidneys are helping us detox and excrete through the urine.

We sweat and release toxins through our skin, and even the breath and the lungs are detoxifying, too. So, we're going to get all into that next week. I hope you enjoyed this episode. Thanks for listening to The Trip Lab. If you liked this episode, please subscribe and share so we can get the conversation started about integrative medicine and psychedelics to destigmatize it and fully explore what this could mean in the world.

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