



Episode 181: How to Find Truly Natural and Non-Toxic Products With Marilee Nelson

Child: Welcome to my Mommy's podcast.

This episode is brought to you by Dry Farm Wines. If you follow me on Instagram you probably already know how much I love these wines. But after a recent trip to Europe, I am even more convinced that these are the only wines I will drink anymore. Here is the deal. Many conventional wines have added dyes, sugars, commercial yeast, fish bladders and some other unsavory ingredients. But even organic wines can have high amounts of sugar, in fact more than soda, they can have commercial yeast that are not gut friendly, or really high amounts of alcohol. I recently visited small family vineyards in Italy, and I got to see firsthand what makes a wine truly natural, and it goes so far beyond organic or biodynamic. In fact, these farmers would have been offended if you had called their wines just organic. These wines have to be made with native, natural yeast so they are actually a great source of living beneficial bacteria. The vineyards cannot be irrigated, thus the name Dry Farm, so the alcohol and sugar content are low and Dry Farm Wines lab test every batch of wine for different factors including alcohol at 12.5% or less, low to no sugar so they are all keto-friendly, only naturally occurring sulfites in low levels and so much more. So what does that mean? For me, it means that, while wines use to gives me a headache, I can drink these wines and feel amazing the next day. If you want to try them and I know that you'll love them as much as I do, you can get an extra bottle of wine for just a penny with any order at dryfarmwines.com/wellnessmama.

This podcast is brought to you by SteadyMD, the revolutionary new platform that my family is using as our primary care doctor. See, in today's world, it's tough to find a doctor who gets you and who you like, trust and agree with. In fact, it took me 8 doctors to finally find the ones I work with now. Often, I found myself (or taking my child) to urgent care or calling a teledoc network, but ended up talking to a doctor who knew nothing about me or my child or our medical history. SteadyMD changed all of that.... Here's how it works. You have access to your primary care doctor by phone, text or video chat any time you need them through the SteadyMD app. This doctor knows your medical history and your health values gets YOU, and you don't have to drive anywhere to talk to them. I've used this so much when there's been a kid related issue like "does this need stitches" or "is this bee sting reaction anything to worry about" and it has been not only a huge timesaver, but a huge relief, especially with the kids. It's truly like having a country doctor who knows you and your family and who can make house calls, but now through the power of technology we have access 24/7 through a convenient app. They can order labs, video chat to evaluate injuries and my doctor even reminded me to do a skin cancer check and encouraged me to send photos of any places that met certain criteria. I truly believe this is changing the face of healthcare and now with their new pediatric add on, our whole family has access to a doctor we love whenever we need him for just a couple hundred dollars a month. Check them out and learn more by going to steadymd.com/wm.

Katie: So, Marilee, welcome back. I'm glad to be back with you again. And I know, in the first part of your interview, we heard your amazing story and your son's, and basically, from like very severe things that you both struggled with to being healthy and to him having a military career and just being able to completely overcome that. And you mentioned a lot through your story, just about how your environment made a difference in that, and to getting to the bottom of a lot of the factors in your home to really fully get to recovery for him.

I think that's a great place to start in this, to like, bring it back to what all of us can be doing, because as all those moms listening, obviously, we wanna have the healthiest home possible for our children, we wanna avoid health problems if we can. So, I'd like to start there and, kind of, if you could delve into from all of your work and also your own experience, what do you think are some of the biggest common problems that we're seeing in many homes today?

Marilee: Well, I will say, right from the start, that when I work with people, we are looking at problems, but my focus is always on solutions. So, I may mention some problems, but I don't want anyone to get stressed. I want people to know that no matter what the situation in your home, there's something you can do to make it better. And no matter who I'm working with, what their problem is, when they come to me, I'll say they've typically been to many doctors and they still are not having resolution. So, we're just aiming to get as many immune

stressors off their body so that their body can go into that healing mode and they can heal.

And the home is where we wanna create a safe haven. So, we don't realize it, but our homes are very much more polluted than the outside air, and the average person is exposed to...this is an estimate, between 134 to more than 200 harmful chemicals from household cleaning products, from body care products, from items in the house. And they're exposed to this before they leave their home in the morning. And so, this is a huge issue because a high percentage of those chemicals, of course, have never been tested, they're not regulated, and there's no information on their toxic effects.

So, the very, very, very good news is that I don't care who you are, what the age of your home is. The first thing that I have people do is to literally, immediately, reduce their toxic load by removing all pesticides in the home from under the counters, you know, raid, flea bombs. Wherever you have a pesticide, get it out. I also have people remove the cleaning products that are toxic.

And I typically will say, "If you don't know what the red flags are, you just want to, if there's a question, just put them in a box and get them out." And I go through a program, Create a Healthy Home, and I'll do it step by step, and we'll look at the laundry products, body care products, scented products like candles, stationeries, plastics, etc. And we'll just go through that, step by step, as someone is able to do it, and just remove them from the house.

And like I said, it will dramatically help your air quality. I've seen people that had kids with allergies, people with headaches, long-term headaches, etc., just with this step of removing toxic cleaning products and pesticides out. It's incredible.

So, the next thing I talk to people about is the situation we have today with electromagnetic fields. and in the past, for instance, when my son was sick, cell phones didn't even exist. And yet, we did look at the electromagnetic fields and we looked at the magnetic fields and so I tell people just to start being aware of not sitting next to motors that are running. If you're in the kitchen, don't stand right next to your electric stove all the time while you're cooking. Just be aware that where you put, you know, a chair or where you sit, you don't have an air purifier or something running right next to you.

I recommend that people will hardwire all their computers and devices. Some people don't wanna hear that, but Wi-Fi is something that we're going to be exposed to when we go out. And if we can come home and have a place where we're not exposed to those fields, it's optimal. If you're not comfortable with that, you can always turn the Wi-Fi off at night. But I really encourage people to start looking at hardwiring all their devices at home.

And if we look at what's happening in Europe, the Europeans are already starting to ban Wi-Fi in schools and in libraries, and there's a lot of studies that are showing some of the effects that it's having on our children and on our brains.

So, not to be scared of it, but we just need to use good common sense. And if we can go home and be in a field-free home at night, your body can rest, recover, and repair from what it's going to be exposed to during the day.

So, in the electromagnetic spectrum, there are numerous things you can do. Like I said, you can stop sitting next to or avoid sitting next to a running motor, you can unplug anything in your bedroom at night to reduce the electric field. So that's really easy. If you have a lamp next to the bed or you've got a lot of things plugged in, just unplugging them will reduce the electric field. And the electric field affects the nervous system so, this gives you a better, sounder sleep if you've reduced the electric field. And there's also steps you can take that you can turn off all the current to the bedroom. You know, this is quite a subject to look at. I'm just trying to give you a big picture.

I tell my clients not to use a microwave because this puts out a very high-frequency field. It will explode the cell wall of your vegetables and fruits, making it typically, I mean, what is said to be unrecognizable by the body. So we want our food to be as healthy and prepared in a way that, it's not, sort of, exploded, like some people say it looks like nuclear fission has occurred in the cell wall of vegetables. So, anyway, taking steps to cook your food with, you know, your electric or your gas stove is much better.

If you have a smart meter I would recommend that you see if you can opt out and get an analog meter. If not, there are some shielding devices that you can look into. And in some parts of the country, people don't even realize that smart meters are being put in. And if you will check that out, you can go to your local electric company and tell them that you do wanna opt out.

So, once people go through their house and they remove, they do the cleanup of their home, like I was speaking of removing plastics and the products, I recommend that people look into the pesticide history of the house they're in. And pesticides are directly implicated in many illnesses like Parkinson's, Alzheimer's, children's issues such as ADD, depression, cancer, on and on. So we want to absolutely clean up pesticide residues in our homes.

And the first question you would ask is what is the year that your home was built in and what part of the country. And you would call a local pesticide company and you can ask them, "What kind of pesticide or termite treatment was done in my home that was built in 1988?" And the pesticide companies typically know. And once you find that out, there are mitigation strategies that can be done that will reduce that level if there is one. And you can have someone look at your home, the construction of it. If you're on pure beam or a slab, there are just different ways that you can reduce those levels that are in your house.

If you have an exterminator come to your home, the first thing I will tell my clients is that you should stop because there are non-toxic alternatives, and they work. For instance, this is a really quick remedy for roaches that I've never had anyone say did not work. And that's just getting Boric Acid, fine cornmeal, and powdered sugar, mixing them in equal amounts, like get a half cup of each, mix it up like you're making a cake. Then you take a spoon of that powder and you put the powder in little cups under your cabinets, around your house, in places where you know an animal or a dog couldn't come. And you just put those out, and in a couple of weeks, you will not see roaches, even the big water roaches.

So, the next thing I have people look into in their house is what is the insulation that is in there? If you have a newer home, it's very possible you might have foam insulation. And the foam insulations that are being used now have fire retardants. And the way to deal with fire retardants, if you already have a foam insulation, is to get a really good HEPA Vacuum. And you're going to want to have HEPA vacuum quite, you know, regularly, at least, once a week because these fire retardants ride on dust and the regular vacuuming will take that low down.

Another installation to look into to see if you have like, for instance, a blown-in insulation up in your attic or in your walls. You just wanna make sure that you cover it, if possible. And a really easy way to do that, if you've got a attic that will accommodate it, is to get Tyvek, which is a building paper, and you just staple it across the top of the rafters so that you have a covering that will breathe, but it will also keep any dust or any fibers from the fiberglass or the cellulose from getting up and out and possibly into your house. That's a real good way to keep your insulation clean as well.

Then another problem that I see in houses is some people have a lot of plastics in the house. For instance, vinyl shower curtains, plastic containers for food, soft plastic toys that have a really strong smell. These are products that we need to remove and get out because they are endocrine disruptors and they're also called obesogens, and they can cause people to have menstrual issues, fertility issues. And just taking them out of the house and replacing with non-toxic shower curtains or glass containers for foods will just make a big, big difference in the house.

So, those are a few of the things that you can do to, you know, improve the air quality in your home.

Katie: Yeah, I think those are so important. And I think you're right, like, there's a lot more awareness now about, thankfully, things like pesticides. People are waking up to the fact that those aren't good to have in the home, and also, even EMFs are more widely understood now than they were even a couple of years ago.

I'll put the link to the show notes, but I've recently learned about something, it's called Kill EMF. It's a special switch that goes next to your breaker box, that lets you, instead of having to flip circuits, you can actually turn off the power to entire sectors of the house at night and leave on things like the air conditioning and the refrigerator, but turn off other parts of the house to even remove the current in the walls. So, for someone who's really sensitive, that would not just even take down the Wi-Fi, but also take down the wall currents and anything like that. So, I'll include those links as well. But I think that's an important factor that was overlooked for a long time and that now, thankfully, we're starting to understand and to be aware of.

And one question I wanna make sure I run by you. So, a lot of people, like, even I'm looking at trying to repaint certain parts of my home right now, and I know that there's now, like, this whole, like, low-VOC paint and there's more awareness of the fact that some paints do have problematic chemicals. But before you move on from just, like, the idea of things that are already in our homes that can be problematic, can you speak to that, to like explain what VOCs are and why they're problematic? And what, like, natural alternatives could look like for that?

Marilee: Oh, absolutely. Paints and any finish material, those are very important materials to look at and choose a safe one. So, one of the issues today that Katie is speaking about are the VOCs. And we know that there are a lot of no-VOC paints being advertised. And VOC means, Volatile Organic Compound. And a Volatile Organic Compound is something you can smell. It's aromatic. VOCs don't have to be toxic. For instance, a rose puts out a VOC. Essential Oils have a VOC. But materials with VOCs that are toxic or, you know, products are the ones that we're worried about.

And so, if you're looking at paint, very important today is that you not only get a no-VOC paint, but also a no-SVOC paint. And a VOC, the Volatile Organic Compounds, these will typically smell initially when you put a paint on, and over time, that goes away. And that's an important point because you put it on, you smell it, but if it's properly applied and you've got ventilation, that's gonna go away.

Once it completely cures out, there is no issue with that paint unless it also has what is called an SVOC component. And SVOC stands for a Semi-volatile Organic Compound. The Semi-volatile Organic Compounds, they do not have an odor and they ride on dust. And the very interesting point is that instead of decreasing over time, like a VOC, the SVOCs increase over time. So, when the SVOC in a paint, if the paint has an SVOC, when it's first applied, the level in the home is low, but the older the home is, the higher that level will get.

So, this term, SVOC, it's very well known in Europe, but it's only just starting to emerge into, you know, the American consumer consciousness. And part of the issue here is the green building movement which is focusing on these no-VOCs, but unfortunately, many of these paints that are being touted as non-toxic actually do have a high VOC level. And that's because they have high levels of biocides or antimicrobials.

And unfortunately, most of the conventional no-VOC paints have this. But there are a couple of wonderful paints that have no VOCs and no SVOCs, and one of those is called ECOS, E-C-O-S. And they recently, which I was so excited about, removed their biocides, which was an isothiazolinone, and so that they could now be a no-SVOC and no-VOC paint.

Another really good option for no-VOC, no-SVOC paint is EnviroSAFE. And this is a paint, it's made with purified water, it's got a natural synthetic latex from Europe, and it has no VOC. It's wonderful. You put it on and you can barely smell it after a half a day. So, very important to look at paints because they cover a very large

surface area in your home. And choosing the best option is always a great idea.

So, I said I wanna talk about solutions. So, if you have a paint that you've put in and it is a no-VOC, but a conventional paint, you are gonna have the SVOCs. And again, the solution for SVOCs is the vacuum cleaner. SVOCs ride on dust. You cannot smell them. And so, just vacuuming regularly will help to bring those levels down.

Katie: Good to know. And I love that you talk about the plastics as well because that's one that I feel, for so many years, there just wasn't a lot of awareness about it, and now, there are at least some really good plastic-free alternatives for most things in the house. And I'll link to a couple of posts I have on that for anyone who wants to, kind of, evaluate how to get rid of all their different plastics.

But then, another area that I wanna really go deep on, because I know you are a world-renowned expert in this, is the natural cleaning side. Because there's so much mislabeling and greenwashing, and people are aware of this happening, especially, in the food industry. I feel like people understand, like, organic and grass-fed and how these terms are or are not well regulated. But there is even more misinformation, I feel like, sometimes, when it comes to household products, and especially cleaners. And when you start wading through that, there is just a plethora of information and it's hard to really understand sometimes, all the different classifications and what they actually mean and if they're even regulated.

So, when I started trying to get into natural living, over 10 years ago, there weren't any even "natural products," and so I was making pretty much everything myself. Cleaning with things like vinegar or just, like, whatever was available. And now there are, in stores, tons of products that claim to be natural and claim to be non-toxic, but I feel like those terms can mean a lot of different things.

So can you, kind of, walk us through the household cleaners and products like that, and what those terms actually mean, and what we need to understand on those?

Marilee: I sure can. But I do wanna just cut back to something you just said before you got to this and just clarify something about VOCs and SVOCs if that's okay.

You mentioned vinyl products. And vinyl is interesting because it's another one that has the SVOCs and the VOCs. And so, just to illustrate, when you buy a vinyl shower curtain, you can smell that. They are so strong. That is the VOC. It's the Volatile Organic Compounds. But if you were to take that shower curtain and put it out in the sun for a few days, it's going to outgas. And you can keep doing that until that vinyl shower curtain has absolutely no smell. That means the VOCs are gone.

But one of the things about a vinyl product is that it does have SVOCs. These are the plasticizers in that vinyl. And those SVOCs, again, you cannot smell and they are going to be emitting from that vinyl shower curtain and they are gonna ride on dust. So I just wanted to give that other example of what a SVOC and a VOC in one product, you know, are.

Katie: Important to know. Thank you for clarifying that.

Marilee: Okay, so, anyway, going to products. You know, we live in a really exciting time, full of opportunities. I mean, we have instant access to boatloads of information through the internet. And I feel, you know, because of this, consumers have more power than ever to be, you know, a truly informed driving influence in the marketplace. And that word, "informed," is key because right now, there's absolutely a growing interest. I mean, we're talking today and there's mounting mass of people who have awakened to the fact that there's an unintended darker side to some of the amazing discoveries and products we have of convenience that actually have been generated by what has been called the age of Chemistry.

So, that darker side is the exponential rise in degenerative disease we have in America that has now been

directly linked to this exposure we have to harmful chemicals in, you know, our food, in our homes, and in the products we use. So, some people call this The Green Movement, and we, I'll say at Branch Basics, we feel that the consumers are absolutely the driving influence in the marketplace and actually have the most power to move this conversation forward in the right direction.

But that's really, only if the consumer truly knows what is safe. And you can't do that unless you're informed and you understand because if you are, you'll make truly healthy choices at the cash register. This will demand higher standards for companies, they'll have to listen if they wanna compete. If they don't make changes, they'll have to go out of business. So, we want people buying products for the right reasons, not because of a label or maybe a wonderful website. We want people to buy because they are discriminating consumers.

So, anyway, what is happening today in an effort to capitalize on this consumer shift and focus, I'll say that some companies are jumping on this green and healthy products bandwagon and they're promoting materials and products that, well, in many cases, maybe just as unhealthy as conventional ones or they still have issues, and the desire to quick sell these products is overriding proper product research and development.

So, this is not an acute accusation of any purposeful deceit, but I think a lot of superficial understanding, innocent ignorance, you know, reasons that are economic and not human health is a top priority.

So, anyway, the buzzwords, non-toxic and healthy, used on labels to attract customers, especially in the cleaning space, is an important place to look because the public is vulnerable to greenwashing here because there's no federal regulation of chemicals and household cleaning products. There is no safety standard, and while all ingredients have to be listed on labels of skin care products, this is waved on pure soap formulations and household cleaning products.

So, you might not even have an ingredient to read, but the good news is that how we define clean in the first place is going to impact and color our decision-making process. And if we understand these things, we can read these labels on conventional cleaning products, it doesn't have to be complicated, but if you're thinking about using non-toxic products and if your idea of a clean house is based on getting rid of germs and how your home smells because you love the smell of fragrance, bleach, or even vinegar, that's gonna drive your purchase and that can have direct repercussions on your health.

And the dirtiest place in your home could be the invisible air you're breathing after you clean. So, let's take a quick look at how you can read labels on cleaning products, especially the conventional ones because that's really easy. You just take a quick scan of a bottle and you'll see toxic red flags. And there's three signal words that the EPA requires on these products. Caution, warning, and danger. And these are all relative.

Telling what kind of a lethal dose is necessary to possibly, you know, kill an adult. So, what danger means, an adult dosed would be a few drops to a teaspoon. Warning, adult dose is a teaspoon to a tablespoon. And caution is one ounce to more than a pint.

So, these cleaning products are the most toxic category of materials found in the home after pesticides and they are linked to so many problems. Reproductive, obesity, neurological problems, birth defects. They have high VOC levels, they contain petroleum-based surfactants, synthetic fragrances and solvents, and they absolutely should be removed from your home. You don't even have to think about it. You do not have to get into reading all of those labels if there is an ingredient on there.

So, as I mentioned, sometimes, we have our definition of clean is possibly we wanna get rid of germs. And one of the toxic red flags found on the label of non-toxic as well as conventional cleaners are the words "sanitizer or disinfectant." And that's an alert because it can typically contains an EPA-registered pesticide which is designed to kill.

And the National Cancer Institute estimates that there's been a 28% increase in childhood cancer since the

addition of these pesticides, biocides, and fungicides into our household products. And I find that even people in this space, the non-toxic space, are very concerned about this issue. And we're a germ-phobic society, we over practice hygiene, and we're paying a really high price for this. In fact, the Center for Disease Control, the CDC, is now recommending that we do not use sanitizers or disinfectants in our homes because we've created a rampant spread of resistant superbugs.

And so, in other words, if you're a germ Nazi, these smart germs will mutate into stronger more dangerous germs whenever you attack them with these products. And we have a nation-wide emergency because of this. We have antibiotic resistance and MRSA in hospitals. And this is very important. This is a salient point that's relevant to not only conventional but the non-toxic.

And we all need to be clear and understand this. The CDC has done testing that shows conclusively that cleaning with a natural soap or a surfactant-based cleaner removes all germs. Whereas, cleaning the same area with a sanitizer or disinfectant leaves resistant germs on the surface. And what is more, most of these products have what is called a dwell-time for them to even work. And for the most part, consumers aren't even aware of that.

So, in other words, if you have a sanitizer or a disinfectant and you just spray and wipe, you are not killing the germs. These products have to sit there for a period of time, and that's typically 30 seconds to 10 minutes. And these germs are forever increasing and mutating, making them harder to eliminate and protect against.

So, the bottom line is sanitizers and disinfectants add harmful chemicals to the air and surfaces and they encourage the spread of resistant superbugs in your home. So, your home's microbiome becomes unbalanced, sort of, like, the gut does when we take antibiotics. So, get these out of the home. Use either a natural soap or a cleaner with a surfactant that can remove the germs completely. Or if you aren't comfortable with that, you can choose a product that has the sanitizer or disinfectant status that has been proven not to cause the superbug issue, and such as ethyl alcohol, which is the same alcohol that's in wine, beer, or liquor.

And the reason that doesn't create the superbugs is because it acts in a completely different manner than a pesticide and it kills the germs through a mechanical action, and there's no mechanism by which the germs can become resistant to it. So, this is a really important point for everyone to really address. And again, I'll just repeat the CDC recommends that actually, the best thing you could do is use a natural soap or a product with surfactants that will remove the germs.

So, moving on from EPA-registered pesticides and sanitizers, a very, very important toxic red flag to consumers, again, in both conventional and non-toxic products, is any reference to fragrance. Like, "Oh, this smells fresh and clean, or fresh as a daisy." If there is an ingredient list and it says "Fragrance or perfume," then you know it has a synthetic fragrance. And these, in themselves, could be a fragrance recipe which could contain not just one or two chemicals but hundreds of synthetic chemicals that are not disclosed or tested for safety. And they've been linked to skin irritation, allergies, nervous system effects, respiratory and endocrine-disrupting effects.

And it's estimated that 72% of products with the ingredient, fragrance, actually contains endocrine disruptors, which are called phthalates, and they've been linked to diabetes, obesity, hormone disruption, affecting fertility and development, liver, and breast cancer. So there is absolutely no way for a consumer to make an informed decision about a synthetic fragrance product except to get rid of it.

So, as a general rule, products are toxic if there are signal words on the label, if they have a synthetic fragrance, or if there are ingredients that you can't pronounce. So, if in doubt, you wanna get them out.

Cleaning products that are advertised as non-toxic, I'm just gonna drill down more into this, the non-toxic, the natural world, need a little bit more greenwashing translation because it's not as easy to decipher what is safe and what is not. There's not any glaring red flag signal words. There's just friendly wording on the label, like

safe, non-toxic.

So, you have your well-intentioned, conscious consumer who has decided to purchase safe products for their family, and they are unknowingly sabotaged from the second they pick up a bottle with the word "non-toxic or healthy." If they're shopping at a store like Whole Foods, many people feel like any product in that store, "It must be safe, so why read the label?" But we're gonna find that's not necessarily the case. So, it's important to do a little more deep diving to determine if these non-toxic cleaning products are safe or not.

So, we're gonna look at fragrance issues, preservative issues, surfactant issues, and just see what clues we can get when we're choosing these products. So, one of the non-toxic categories of concern is does this product have a fragrance? Many of the non-toxic cleaning products do have a fragrance, but ideally, we would like to find one that is fragrance-free and unscented, especially if you have someone in the home that has health challenges.

So, this unscented and fragrance-free means that all ingredients are classified as fragrance-free. That's every ingredient. And nothing is added to mask the natural smell of the formula. That makes it unscented.

So, if you have a product that does have a scent, these VOCs are released when cleaning, and they immediately affect the air quality of the home. And even natural fragrances can trigger the immune system in some people. But if you want a little scent and you are healthy, that's great, but you really need to understand how to determine if the fragrance or essential oil on the label is safe. In a study that analyzed 25 top-selling products, researchers found that many of these green natural fragrance products emitted hazardous chemicals because most of the essential oils in consumer products are processed with toxic solvents.

So, you need to find out what that oil was processed with. And in addition, these essential oils contain...some of them contain terpenes, such as pine and citrus oils. And if a product has those, that can be fine, but they will react if there's ozone in the surrounding air and they'll create secondary pollutants such as formaldehyde, acetaldehyde, acetone, and ultrafine particles.

So, to ensure safety, if you desire to have a scent, you wanna use an organic essential oil or an essential oil that is wildcrafted. It has to be extracted without solvents. And if you're using a citrus-based product, you don't wanna use it on a day where there is a high ozone alert. And in some cities, that happens.

So, another important category of concern in non-toxic products is the preservative used because many actually use the EPA-registered pesticides. And these are designed to be cytotoxic and kill cells. So, one of the big offenders in this realm today are the isothiazolinone family of chemicals, such as MIT, which is methylisothiazolinone, or BIT, benzoisothiazolinone. And these are neuro-toxic. They can cause increased seizure susceptibility and they are skin irritants. They can bioaccumulate and they contribute to the toxic load our bodies carry. I don't recommend products with those preservatives.

Another preservative to be on the outlook for is phenoxyethanol. And this is a preservative that is also used as a hidden fragrance ingredient. It's an endocrine disruptor. It's a skin and eye irritant, affects the brain and the nervous system. This ingredient is found in a lot of the skin care products as well and should be removed from the house.

Another preservative found in non-toxic products is benzalkonium chloride. And this is a quaternary ammonium compound that's associated with severe skin, eye, and respiratory irritation and allergies. It's a sensitizer for people with asthma or skin conditions such as eczema.

So dig into the products and find the preservative and research it. The synthetic preservatives are considered by dermatological associations to be the number one cause of contact dermatitis.

The next category we're gonna look at is surfactants. So what are surfactants? Surfactants are surface active

agents, and they're an in-situ ingredient in all household cleaners. They reduce what's called the surface tension, so the cleaner can emulsify, penetrate, and loosen dirt, so it can be rinsed away.

The first cleaning surfactant that was used, that we know of, was the foot soap. And that dates back to 3000 BC. And soaps and natural surfactants, such as soap, were the sole surfactants used throughout history until we had shortages of the fats and oils in World War II. And this stimulated the development of alternative synthetic petroleum-based surfactants that are now found in those toxic cleaning products we were talking about earlier.

So, in cleaning products, there are three categories of surfactants that might be found, and each of these categories can be further divided into classes and subclasses, but we're not gonna get into that. We're just gonna look at the big picture.

The first are the natural surfactants. This is the old-school, original way to clean. They're made of a fat, vegetable or an animal fat, and lye or a strong alkali. Natural surfactants can also be extracted from plants like Quillaia, Yucca, and Soapwort.

The second category are the naturally-derived surfactants. And these are actually correctly called naturally-derived synthetic surfactants because of the number of processes it takes to make that surfactant. And these are made from plant-based ingredients, such as coconut oil, corn, palm oil. And unfortunately, many of these naturally-derived synthetic surfactants are very toxic to aquatic life. They have toxic by-products, such as 1,4-Dioxane, nitrosamines. They may be carcinogenic, and they're rated typically as very high skin irritants.

There's one category of these naturally-derived synthetic surfactants that are called the sugar surfactants. And they are the alkyl glycosides. They are quite mild and they are exceptions to the rule of the ones that are more toxic.

The third level or type of surfactant are the synthetic petrochemical-based surfactants. And those are found in the conventional cleaners.

So, I thought I might use the journey we took to create our new Branch Basics formula as a way to dig into these different surfactants. So, our goal was to create an all-natural saponified soap, that was a powerful, versatile cleaner, that did not irritate the eyes, the skins, or lungs, and didn't leave any residue or soap scum.

So we were virtually asking for the impossible of the chemists we intreated. And searching for all-natural ingredients to accomplish this was just a grueling challenge, and after almost a year, we finally had an all-natural soap that performed really well, but it irritated the eyes, it irritated the lungs, and it left a slight soap scum. And we learned the hard way that saponified soaps, they inherently do this. They leave a residue and they irritate the eyes and lungs.

So, having a cleaning product that didn't do these things was a priority for us and for our sensitive customers. So, as a result, after finally giving up on the natural soap, we attempted to use that second category of natural surfactants that are extracted from the plants like Quillaia, Yucca, and Soapwort. And we really, really thought we were gonna be able to accomplish this because we had some amazing formulas submitted to us. But sadly, we were unsuccessful, mostly due to problems with stability. So, we were at a standstill and we did not know if we were gonna be able to go on.

And it was always our intention to use only natural ingredients with no synthetics, even though we had learned that synthetic ingredients can be safe and sustainable, and natural ingredients can be harmful and unsustainable. And we also had learned, through our personal experience of the chemically-sensitive people with our original formula and end-product testing, that the way ingredients in a product are mixed actually determine the properties and the safety of the final formula.

So, to illustrate how this is relevant, consider Castiel soap, which is the most gentle of all natural soaps, yet it's made with a really hazardous ingredient, lye. Lye is extremely caustic, can burn the skin, cause blindness, and if ingested, it can even cause death. And upon reading the ingredient list, you might not even consider using a soap that is made with lye. And yet, after the saponification process, the way the ingredients are mixed, a non-toxic product is created. And actually, end-product testing reveals that this harmful chemical, lye, is greatly reduced or maybe even completely disappears when properly processed and cured.

So, after much deliberation and a lot of angst, we started to consider the second category of surfactants, these naturally-derived synthetic surfactants. And we zeroed in on Europe, where the world's strictest cosmetic regulations are in place under the European Union Cosmetics Directive. And we learned that the Alkyl Polyglucosides, that's, Decyl Glucoside, Coco Glucoside, and Lauryl Glucoside, they stand out among this category of surfactants and are considered to be the naturally-derived synthetic surfactant of choice because they're biodegradable, there are absolutely no environmentally harmful intermediates formed, meaning they don't release any undesirable products of nitrogen, ethylene oxide, or preservatives. They're not contaminated with 1,4-Dioxane. They don't contribute to nitrosamine formation. They're very mild to the skin and they're safe for baby formulations.

So, we went forward and tested a total of about 100 iterations of formulas before our formulator found the right mix of the ingredients, which included using these alkyl glucosides. And the formula was effective, versatile, free of harmful preservatives, fragrance-free, unscented, left no soap scum or residue, and most importantly, it didn't irritate the eyes or lungs. We got absolutely glowing reports from almost every one of our sensitive testers.

So, we didn't take that formula decision lightly, we weighed in many factors. We put our formula to the test, we did in-part products skin-irritation testing to give our customers more information about the safety of the formula. So, the formula was put into direct contact with skin-like tissue for a period of time, and to our amazement and our surprise, our results were better than any test results the testing company had ever seen, because our formula tested 100% to be like the control. In other words, it performed on the skin like water would.

So, for those who want to use, for instance, our product as a hand and body wash, the glucosides in the formula are eco-certified, which means they are suitable for organic formulas. All ingredients are rated a number one in EWG's Skin Deep Cosmetic Database and are found in natural baby formulations.

With that information I just gave you, I recommend you looking into the surfactants being used in any product. And, of course, like I said, there's so much information on the internet, you can just zero in and just see exactly what's being used.

And so, for us, with full disclosure of carefully sourced ingredients, and our testing results, we want our customers to be able to make an informed decision, whether they want to use this product as only a cleaning product or also as a rinse off hand and body wash. We want to make sure people understand the difference between a natural soap and a cleaner with safe surfactants, and, you know, a cleaner with not-so-safe surfactants.

And our future plans include...and we hope to offer a pure saponified soap for those who want to avoid all synthetics for hand and body care. We're hoping to set a standard in the cleaning industry by doing comprehensive end-product testing, and we especially want to encourage other non-toxic cleaning companies to participate because, as we've seen personally, sometimes, ingredient lists do not reflect accurately the end product. So, we can't always say a product is not safe because it has this ingredient, for instance, the lye in a natural soap.

And I wanna give you another example of how we did another independent third-party end-product test that verified that there are no GMOs from corn or any GMOs in our product. And interestingly enough, there is no

corn or even the corn DNA detectable in our concentrate. So, the Decyl Glucoside we are currently using is corn-based, but, like I'm saying, our end-product testing revealed the processing involved in creating our formula eliminated the presence of even any corn or the corn-maize DNA

So, these end-product tests are another way for people to determine a product safety and if they want to use a product or not. A lot of people have allergies. We have people that have allergies to corn, we have people with allergies to peanuts, to, you know, tree nuts, all kinds of things. And these end-product tests can be very helpful in the consumers' hands. So, the more consumers know, the more they can make good decisions, the faster we can drive the market to make only really safe, wonderful products for us to use.

So, the big picture I wanted you to see is to look to see if the cleaning product has a fragrance, is it unscented? Is it a safe fragrance if there is one? Are there any EPA-registered pesticides in the product? Is the product declared a sanitizer or a disinfectant? What is the preservative used? What surfactant system is used? Is it GMO-free? Etc. So, the more we know, the more we can make these good decisions.

Katie: Yeah, I absolutely agree.

This episode is brought to you by Dry Farm Wines. If you follow me on Instagram you probably already know how much I love these wines. But after a recent trip to Europe, I am even more convinced that these are the only wines I will drink anymore. Here is the deal. Many conventional wines have added dyes, sugars, commercial yeast, fish bladders and some other unsavory ingredients. But even organic wines can have high amounts of sugar, in fact more than soda, they can have commercial yeast that are not gut friendly, or really high amounts of alcohol. I recently visited small family vineyards in Italy, and I got to see firsthand what makes a wine truly natural, and it goes so far beyond organic or biodynamic. In fact, these farmers would have been offended if you had called their wines just organic. These wines have to be made with native, natural yeast so they are actually a great source of living beneficial bacteria. The vineyards cannot be irrigated, thus the name Dry Farm, so the alcohol and sugar content are low and Dry Farm Wines lab test every batch of wine for different factors including alcohol at 12.5% or less, low to no sugar so they are all keto-friendly, only naturally occurring sulfites in low levels and so much more. So what does that mean? For me, it means that, while wines use to gives me a headache, I can drink these wines and feel amazing the next day. If you want to try them and I know that you'll love them as much as I do, you can get an extra bottle of wine for just a penny with any order at dryfarmwines.com/wellnessmama.

This podcast is brought to you by SteadyMD, the revolutionary new platform that my family is using as our primary care doctor. See, in today's world, it's tough to find a doctor who gets you and who you like, trust and agree with. In fact, it took me 8 doctors to finally find the ones I work with now. Often, I found myself (or taking my child) to urgent care or calling a teledoc network, but ended up talking to a doctor who knew nothing about me or my child or our medical history. SteadyMD changed all of that.... Here's how it works. You have access to your primary care doctor by phone, text or video chat any time you need them through the SteadyMD app. This doctor knows your medical history and your health values gets YOU, and you don't have to drive anywhere to talk to them. I've used this so much when there's been a kid related issue like "does this need stitches" or "is this bee sting reaction anything to worry about" and it has been not only a huge timesaver, but a huge relief, especially with the kids. It's truly like having a country doctor who knows you and your family and who can make house calls, but now through the power of technology we have access 24/7 through a convenient app. They can order labs, video chat to evaluate injuries and my doctor even reminded me to do a skin cancer check and encouraged me to send photos of any places that met certain criteria. I truly believe this is changing the face of healthcare and now with their new pediatric add on, our whole family has access to a doctor we love whenever we need him for just a couple hundred dollars a month. Check them out and learn more by going to steadymd.com/wm.

Katie: And I think your point too, was really well made that our quest to be so afraid of germs has actually done the exact opposite of what we were hoping it would do. And I know from my side, with, like, background in research and nutrition, that we're seeing this in our children and them having not as diverse microbiomes. We

know from the data that kids, for instance, who grow up on farms that are exposed to a much more broad spectrum of bacteria actually have stronger immune systems and less chance of a lot of different problems.

And I think that's an important point, that, like, we truly, have, kind of, thrown the baby out with the bathwater in this case, and in trying to get rid of germs, we've substituted something so much more dangerous. And that we actually do need bacteria. We exist in a microbial environment for a reason. We just need to have a way to take care of the truly harmful ones and to keep our house clean, but, without sanitizing every surface that we come in contact with.

And I know for you guys, it's been like you said, a lot of testing, a long road to finally find such a safe formula. And I appreciate all the work that you've done on that and I know that it's something we use in our home because although not only is it natural and cost-effective, but it's also a great way to avoid, like, the plastics. And because I can make all the different mixtures in glass jars or glass spray bottles and so, I have, like, different ratios of the Branch Basics in all the rooms in my house for different things, but it's so versatile that I can even use it, like, on my skin, which is awesome.

So, I just wanna thank you for the work that you've done there because I know that was no small feat. And you went into detail on it, but I also know how hard you guys worked and I appreciate that. And for everyone listening, the links to that and to the information about the formula, that will be in the show notes at wellnessmama.fm. So, you guys can find out more and check it out.

I know in our house, we use it for laundry, for windows, for kitchen cleaning, bathroom cleaning, but really, like, it can be used for essentially, anything. Right, Marilee? It can be almost anything in the home?

Marilee: Yes, absolutely. It's a great oven cleaner, degreaser, stain remover. Wonderful for actually removing the toxic laundry product residues that are just incorporated and impregnated in so many people's clothes.

And just, this is a really important point. I know most of your listeners are probably not using conventional laundry products or fabric softeners, but I will tell you that if you've ever used them, it's possible that you still have these signature fragrances that are designed to impregnate the material. And what I recommend to get rid of that fully is actually sunning the clothes. And turn them inside out, put them out in the sun, and turn them over. You know, come out in a few hours a day, turn them over, sun the other side.

Do that until you absolutely smell no residue in those clothes because that toxic load that you wear on the body and you sleep...if you're using those products and you're sleeping in the bed which is cleaned with those products, you're 24/7 breathing these endocrine disruptors, these absolutely neuro-toxic chemicals, and you wanna get that off of your body. You want that toxic load fully removed.

And I'm gonna say that the fact that these chemicals are designed to impregnate into the materials is validated to me because I have been around people that I've worked with that actually have been using good products for a while, but I can still smell those chemicals on their clothes. So that sunning is a really great way.

And also, if you buy new clothes, I always put those clothes out in the sun until they have no smell, then I will wash them. Because it's gonna take a while to, you know, wash them, you know, in your washer and get that out. The sun is just a fantastic out-gasser.

Katie: That's an interesting point. And the sun, I'm obviously, so grateful for so many things, but it makes me think like that's something that our...at least I know my grandparents routinely did, was to dry clothes outside in the sun. And we've gotten away from that. Another thing we've stopped doing in the name of convenience. But it's interesting that it has that dual purpose.

And it reminds me also, in high school, one of my first jobs, I used to help...I was, kind of, an assistant. I ran errands for this woman who was chemically sensitive. And her name was Sandy. And like, it really surprised

me. I had to, kind of, learn just how much it can impact someone's life and how, like, if I even, like, washed my hair with a non-natural shampoo and then went into her house, she could immediately tell. And so I would have to, kind of, do this whole protocol of, like, showering in a certain way and wear clothes that stayed over there to make sure that she wouldn't react just to me being in her house, much less to other things. Then, when I would run errands for her and have to do things to make sure that going into the house wasn't gonna make her more sick.

And obviously, that's a very extreme example, but I feel like people like that illustrate just how much these things do impact us. And they can, kind of, be a really good gauge to understand that while some of us can, like, you know, smell that "fresh dryer smell" and think it's fine, people like that really can show us how much it's impacting the body even small, small amounts.

And I know that you guys raise awareness about that too. And, I think, the other thing to highlight, because I know we're both on the same page with this, is that, I know there's a ton of information, but then it doesn't have to be stressful and it doesn't have to be overwhelming. I know it can seem that way when you, kind of, like, start learning about it and realize how many "bad things" are out there, but that it can be a slow process. But when you get there, it's not that difficult, and once you've made the switch, it's not any more difficult to live this way than to be using the, like, highly-scented laundry detergents or, like, "highly-scented natural cleaners" that aren't actually natural.

Once you've made those small switches, it really is an easy way and an easy lifestyle. It just is making those conscious choices as you bring new products into your home.

And so, yeah, I think, Branch Basics, I wanted to bring you on because it's been one of those things for me that made my life easier because it becomes so many things. I don't have to buy separate products for all these things now and I can feel safe about it being in our home. And I've also been, like you, remove plastic from our home, which is a long and difficult process because it is in so many things, and even children's toys and in clothing. And so, that's been a long process as well.

But, like I said, the links to all of this for everyone listening will be in the show notes so that you can find Marilee's information.

Marilee, do you have any final words or things you wanna make sure people understand before we wrap up today?

Marilee: Well, I think that the biggest picture, as you just described, like the woman that you worked for and helped, how she was like a canary, and it opened your eyes to, " Oh, my gosh, you know, I'd never have known that this was an issue." Just like my son, we realized that these things were important.

So, I always say, you know, if you have any physical issues, any health problems, if anyone in your family does, or if everyone's healthy, you might want to try removing these products from the home, these chemical exposures, as much as you can, because it will take stress off your immune system. And you might find out that you're a lot smarter, you feel a lot better, you have a lot better moods, and it can change your life. This is literally information that can change your life.

And, you know, we've tried to make it simple by creating a product that can replace a large amount of those toxic products. And, like Katie said, this is not something that should be stressful. This should be opportunity, and you do this step by step, whatever you can. And every simple act that you take is going to remove immune stress from your family.

And we have in our pockets, creating a healthy home, the best preventative health care that, you know, you can find. I mean, you need to eat real food and live in a safe house. And it's incredible what can happen.

Katie: Absolutely. And, like I said, I appreciate the work that you guys are doing, and I appreciate your time that you've spent explaining all the research and the information to help people make healthier home choices.

And for all of you listening, I know we've covered a lot there, there'll be links to everything we talked about at wellnessmama.fm in the show notes, so you guys can find those. Don't worry about writing them down, especially if you're driving or somewhere where you can't. Those are all there.

And Marilee, thank you so much for your time and for being here, and for your research.

Marilee: Thank you so much for this opportunity, I really appreciate it.

Katie: And thanks to all of you for listening, and I hope to see you again next time on The Healthy Moms Podcast.

If you're enjoying these interviews, would you please take two minutes to leave a rating or review on iTunes for me? Doing this helps more people to find the podcast, which means even more moms and families could benefit from the information. I really appreciate your time, and thanks as always for listening.