Detoxify Your Life with Donna Kasuska

Transcript

Ritamarie: Hello and welcome everyone. This is Dr. Ritamarie Loscalzo, and we are here for a very, very, very special call and presentation by Donna Kasuska. It's all about being health-conscious and detoxifying your life of the chemicals that sneak in unbeknownst to you. They don't sneak in unbeknownst to Donna because Donna has dedicated the last 15 years of her life to taking the toxins out.

She's a chemical engineer; she runs a consulting company. What she does for a living is she goes into these big chemical plants and teaches them how to be safe with the chemicals. What she's put together for us is nothing short of amazing. I'm thrilled with what she's put together. It's a really cool spreadsheet with all kinds of chemicals and where they are hiding and what you can do to protect yourself from them.

I'm just going to be in the background here, I'll interject when needed. I just want to introduce you to my dear friend and amazing, amazing chemical engineer and 'detoxify-your-life' person, Donna Kasuska. So thank you Donna.

Donna: Well, thank you, Dr. Ritamarie, and hello everyone. It's such a pleasure to be here. The purpose of this call is to take you through what I'm so excited about because this is my first product.

Before I start walking you through the product, because I think it does need a little bit of explanation, I do want to get on the same page and let everyone know exactly why I'm doing this and how I got to where I am today. If you've heard me speak, you've probably heard the story before, but bear with me in case someone hasn't.

I'm a chemical engineer; I've been one for 33 years now. When I graduated from college, I was just like any other chemical engineer. I thought it was very cool to be in chemical plants, and I thought I was doing the world some good. I thought I was really making a difference by helping to make chemicals and to design chemical processes so that we can make more chemicals.

We had the idea that everything in life was centered around chemicals. And it is true to a certain extent. All of our body processes can be chemically explained, but we had this idea that the more chemicals we make the better. It was years before I actually woke up and realized what actually is happening in this world.

I realized that when my son was about four years old. We were getting ready to take him to daycare one morning. As I put sunscreen on him, he started crying because it was burning his knees. His knees were all skinned up, and then he said, “Mom, please stop putting this on my legs.”

So I looked at the ingredients thinking ‘oh, there must be alcohol in here or something. I want to check it.’ When I looked, I thought ‘oh, my gosh, the things that are in here are all the hazardous chemicals that I have been spending my time in the chemical plant protecting workers from.’

In other words, while in the plant making these chemicals, we had lots of rules and regulations that made us be very careful and prevent the workers from being exposed to these chemicals while they were making them.

After I made that discovery, what happened was I started to read every label I could get my hands on, and it started to paint a huge picture for me in that I realized that these chemicals were in everything. So even though in the plant we were taught that a little bit won’t hurt you, we still had rules and regulations that required us to control these chemicals in the parts-per-billion range.

So we were making sure that a worker didn’t receive any more than a part-per-billion or maybe ten-parts-per-billion. If we were making sure that workers didn’t get that kind of exposure, then how come we were allowed to put these chemicals in sunscreens and other products?

Then what I realized also is that when we get a little bit in our sunscreen (and even if that little bit doesn’t hurt us), we also get a little bit in our shampoo and a little bit more in our lotion, and then we sometimes the same products are in our personal care products. We get the same chemicals in our foods and sometimes in our drinking water. So, if you go throughout the day, and you get a little bit here and a little bit there, by the time you get to the end of your day, you've been exposed to a lot of hazardous chemicals.

These chemicals are neurotoxins, they are hormone disruptors, and some of them are outright carcinogenic. Some of them have been proven to be carcinogenic, and yet we are allowed to have a tiny bit in products.

So that's what started me on my quest. I started with myself. My son was about four then, and he is 19 now, so it's been a while. I started with myself because I just wanted to protect myself and my family as best I could.

Although I didn't think it at the time, eventually I realized that I had become seriously toxic. I knew that it wasn't from my exposures in the chemical plant because I had documented proof that we were keeping the exposures really low in the chemical plant.

But yet, I was really toxic. It turns out that just as much as we were keeping the workers from, I was getting in my food and in my personal products. So I went on this quest to first detoxify my own life and detoxify my home and keep the chemicals out of my children's food and their drinking water and their air.

Then I met Dr. Ritamarie, and she helped me get the chemicals out of my body. But the most important thing is that once I decided to get the chemicals out of my life, it didn't necessarily mean that they automatically came out of my body. I got them out of my life first. Then I consulted with Dr. Ritamarie and got them out of my body, and thank you, she saved my life.

I'm now 50 pounds lighter, and I feel great. Now I'm out sharing my message with the world. The other reason that it took me so long to get this out into the world is that I just didn't really think that anyone cared to hear it. I often ran into people, and when I would tell them 'I wouldn't use that because that's bad for you,' I would get a lot of people with the response of 'don't tell me; I don't want to know. What I don't know won't hurt me. I don't want to know what's in here. Just don't ruin this for me; don't ruin this pizza for me.'

So for several years, even though I had done all this research myself and got these chemicals out of my life, I still didn't feel like anyone really cared to hear. I have seen such a change in the last three years. It's not that I'm hanging around with a different group of people. It's just that more people are becoming aware, and more people are speaking up. I think more people are realizing that the solution to this problem is that we all have to make the right demands. We all have to be aware of what's in the products and be conscious of what we are choosing.

The way we started this problem in the first place is because we all wanted food that would last more than a couple of days in the house and not have to go shopping every day. We wanted things that would make our hair shiny and fluffy. We wanted makeup, and we wanted a tan, and we wanted protection from sun exposure because we thought that was going to give us cancer.

But what we didn't say is, 'we want these things, and we also want them to be safe.' So, yes, we want to preserve our food, but we don't really want to use BHT and other awful preservatives. We want to try to preserve our food more naturally. So now what I'm seeing is more people want to hear about it, and even better, a lot of manufacturers are starting to come out with safer products. The only way that this is going to turn around is if we all keep asking for those safer products and start reading our labels and being aware of what's in our products.

That was when someone said, "Donna, you ought to write this all down." I've been speaking to people. I go, and I present these features, and then I get so many wonderful comments and emails. All to of you out there who have sent me an email, thank you so much because it really, really is encouraging.

So I did. I wrote it all down, and I decided to share it with everyone. I want to explain the way I did it because this product might seem a little bit intimidating at first, but the way I did this is I took exactly what we do in industry, and I put it into - 'community terms' is the best way to put it.

I took exactly what we do, and I still do this. In fact right before this phone call, I just came back from a trip where I spent the entire week doing exactly what I'm going to teach you tonight in a large chemical plant and helping those people to reduce their risk in the plant. So it's nothing new that I'm teaching you; it's just a little bit different than the way we do it on the plant.

This of course is the first, never before released version of my product. You can go to www.drritamarie.com/go/detoxifyyourlife and download it now. So based on what I just talked to you about, the main point that I really want to get across today is that it is not hard to get the chemicals out of your life. I live in a normal house; I live a very normal life; I do similar things to everybody else.

Yes, some people (especially my kids) think I'm weird, but for the most part I live a normal life, but it is chemical free. So we don't have to go crazy; we don't have to go live in a cave in the wilderness and eat wild berries in order to avoid the chemicals. We just have to use some common sense and know where they are.

The way we do that is we look at what I like to call risk. Risk is a two-part word. It has two things: it is consequences and it is likelihood. So the way to understand that the best is if I tell you that air-travel is very hazardous and risky, most people would believe me. Most people would think that air-travel is more risky than car-travel.

But it turns out that because—even though the consequences of flying are very bad—when a plane crashes and we all hear about it, it's terrible. But we don't hear about every car crash. There are so many car crashes that we couldn't possibly hear about all of them. It actually turns out that it is more risky to drive your car than it is to fly an airplane.

There are several reasons. Even though the consequences are not as grave when you crash your car (it is more likely you could survive crashing a car than you would survive crashing an airplane). However, we fly a whole lot less than we drive. The frequency is what matters. Even though the consequences are really bad if you crash a plane, it's so much less likely that you will crash your plane than crash your car. It makes car-travel more risky. So hopefully after that little introduction and once I show you my risk matrix, it will all make sense.

So what I'm going to do is bring up my risk matrix. Basically what we do is when we are looking at a behavior - let's just take drinking chlorinated water - let's look at that behavior. First what are the consequences of drinking public water or chlorinated water, and then what is the likelihood of drinking chlorinated water?

Let's look at the consequences first. Although chlorine itself is not a carcinogen, it has a link to thyroid cancer, and it has also been linked to other forms of cancer because chlorine reacts with organics in the body or in the water or wherever it is, anywhere you get organic then it forms trihalomethanes, THM, which are carcinogenic. So it is proven to be carcinogenic.

So if you look at this risk matrix, you know that chlorine fits into category one. Chlorine is fatal in high doses. It's also known or suspected to cause cancer, so I would give that a 1.

Now if I drink public water, and I drink it every day, then my likelihood of drinking chlorinated water is a 1: I do this one or more times per day. So I go down to my risk matrix. It's on the bottom on the left, and I give it a 1 for consequence and a 1 for likelihood. And that means I have an A. So over on the right on the suggested actions you see that an A is unacceptable. That's something that you have to take action immediately to find an alternative.

Let's take another example. You have a child who is eating dirt. Kids like to go outside and put their hands in their mouth. So you know in your heart that's probably not a good thing, but dirt has not been proven to be a carcinogen. Dirt doesn't really have any major immediate effects on us. It's not a teratogen; it's not a mutagen; it's not a hormone disruptor. It's just dirt, so that would be a 4.

That's irritating. It might make the child sick for a while, but there is no significant damage or harm.

Maybe the child does this once a day. Maybe the child does this one to three times a month. Just for this example, let's assume the child does this one to three times a year. So what we have here is a 4 on the consequence level and a 3 for frequency. I get a D. Okay a D is acceptable, and so basically no action is necessary unless you have noticeable symptoms.

Unless you notice that the child gets sick every time he/she eats dirt, it's probably not something you should focus on especially if you are drinking chlorinated water, and you are worried about the child eating dirt. I think it's more important to focus on the chlorinated water.

Those are two examples, kind of extreme, and I was trying to get an example on different ends of the spectrum so you can see how this works.

So let me go through these levels with you. I give something a 1 if it's toxic to the point where it's fatal in high doses. I also give it a 1 if it is known or suspected to cause cancer. I also give it a 1 if we are talking about radiation because that is of course known or suspected to cause cancer. In the two category I talk about things that did irreversible damage. If something is a mutagen (that means that it's affects your genes), a teratogen (which is something that would affect an unborn fetus), a neurotoxin (which means it affects your brain cells), or a hormone disruptor (which is a large category).

Since working with Dr. Ritamarie, I've started to really understand our hormones and understand how disrupting certain things can be to that beautiful balance that we are supposed to have with our hormones. It is very serious, and some of you might want to put that 1 up in the number 1 category.

Then I also added that if something causes noticeable symptoms to **you**. Another major point about this product is that it doesn't matter what someone else is doing. What matters is what affects **you** so you have to look at **your life** and determine what your risk is. If something causes noticeable symptoms every time you are near it, you should stop using it. So I put that as a two.

Number three, I talk about acute or immediate effects such as something is corrosive, it burns your skin, or it's flammable - it can burst into flames. Or it's an allergen, it irritates you. Or dust, dust is irritating if there is too much of it. Mold is another one that's irritating. But again if molds give you serious symptoms, I would put that in a higher consequence category than just a three.

Four is just things that are just irritating and don't really cause significant damage or harm.

So then we move over to likelihood, and we say, "Okay, how often do I engage in this behavior?" If I have a bottle of shampoo that contains some weird chemical that has been shown to cause cancer, and I use it. I shampoo with that maybe twice a day, you've got some serious likelihood of getting cancer if you are using this cancer causing product more than once a day.

But if you never use it, or maybe you only use the shampoo when you travel and you are in the hotel and you run out of your own shampoo and that might be like once in 10 years or something, then you don't have to worry about that because these chemicals in these small quantities really won't hurt you if you are doing it once every 10 years.

If you go down to the suggested actions, what we are going to do is we are going to go through this checklist, and we are going to get letters corresponding to your level of risk for each of the questions that I ask in the checklist. So you are going to get A's you are going to get B's and C's and D's and then what you are going to do is you are going to start addressing the A's because when you are addressing the A's, you are addressing the highest risk in your life.

Then you are going to go and address the B's which are undesirable which means you should take action very soon as opposed to immediately. Then we are going to look at the C's, the C's are conditionally acceptable, in other words, you need to evaluate ways to find an alternative. You might want to reduce your exposure or use protective measures. That's another big thing.

Sometimes I use ammonia to clean the racks in my oven. Ammonia is an acutely hazardous chemical, and you don't want to be exposed to too much of it. But I don't do it very often, maybe once a year. I take the racks out of my oven, and I put them in a big trash bag. I put some household ammonia in there, and I close up the trash bag, and I let them soak overnight. Then when I get up in the morning, I rinse them off with a hose. And it's a miracle; it takes everything off.

People would argue that ammonia is hazardous, and I shouldn't be using that because I say I have all the chemicals out of my life, and then I go and do that. But I'm looking at the fact that I would put ammonia in a three category for consequence, but because I do that maybe once a year, I would put that also in a three category, and that gives me a C, something that's conditionally acceptable.

Then what it says there is you might want to use protective measures during your infrequent exposures. So when I do that, I do it outside. I put the ammonia in a trash bag outside, and I put the racks in there and then I seal it all up, and then I'm not exposed.

If I'm exposed to ammonia I'm lucky if I even smell it, let alone actually get an exposure. So I'm protecting myself by keeping it away to my breathing zone. I wear gloves when I do it. I seal up the bags, so really I'm taking actions to minimize my infrequent exposure.

Then D of course is acceptable, and you really don't have to take any action unless you have noticeable symptoms or you really believe that this is something that you want out of your life, or you've gotten all of the other chemicals out of your life, and now you want to keep doing it. So anyway that is my risk matrix.

The beginning chapters my product are really just setting up and explaining why this works and what we are doing. I do want to emphasize that there are no wrong answers. Like I said this is all about you.

I want you to use this on your family members, and I want you to have them go through it and recognize where they may be having different exposures than you. Or maybe they are having different symptoms, and then you can certainly work on their exposures and their risks as well.

The other thing I want to mention before we get into my checklist is that I have filled out the consequence levels for you, but that doesn't mean that you are stuck with them. You can take this, and you can change it. You can cross out what consequence level I have put, and put what you think is the better one that describes your situation.

What I have tried to do is I have looked at the worst case analysis. So if I have found any link to cancer, I have given it a 1. If I have reasons to believe that something is a hormone disruptor, I will give it a 2. But maybe if you go out and do your research you may not agree with me, and that's okay because this is identifying your specific list.

So this is what my checklist looks like. This checklist is designed for you to go through step by step and do what I did in my life. But I didn't do it as organized as this. In fact I didn't do it anywhere near as organized as this. What I did is I decided that I was going to remove all the chemicals from my life really fast, and that I was just going to do everything all at once.

What happened was I got a little overwhelmed. I got to a point where there were days where I just didn't know what I could do. I knew what I couldn't have, but I wasn't really clear on what I could have. That was a bit of a stressor, and I've got to say I came out of it okay, but I don't recommend that approach. I recommend a step by step: Let's work on this thing first. Let's work on this thing second until we get to the point where we are comfortable with our risk.

I started with air. Air is not the easiest one to do. Products would be the easiest thing to do because you just look up the ingredients and research them and make a decision. But things in your house are not only more difficult to understand, but some of the fixes are expensive. So that's why I want to start with this one first. If you identify the high risk areas, you can start to budget in some of the things that you want to do, and you can start to take some early measures that may not be as expensive like opening windows.

The first thing I want to talk about is combustion products. I don't like things like candles because they are an open flame. They create smoke, and they create combustion products. Even though we are told that when you burn something organic, you get carbon dioxide and water. Well, in a perfect world you get carbon dioxide and water. In that case it's not a big problem because water is not hazardous, and there is plenty of carbon dioxide in the air anyway so you shouldn't be so concerned.

But that's not the only thing you get because nothing ever burns completely. So you get smoke and other combustion products, phosphor dioxides and oxides of nitrogen and other things that are dangerous.

So when we heat our homes with natural gas, propane and oil, these are hydrocarbons. When we have a forced air heating system in our home, we are creating these hydrocarbons and then are blowing around in our house. If we have an energy efficient house, we are buttoning it up really tight and insulating everything and keeping everything in the house. So we end up with a build-up inside of our homes.

Combustion Products: I believe combustion products are one of the easiest things to get rid of. My first question is, do we live or work in a building that has a forced air heating system that is fuelled with natural gas, propane or oil, and you do not have a fresh air HEPA ventilation system? So if that's the case, I've already ranked that as a 3. If you look over at my risk matrix, that's acute immediate effects, but not, to my knowledge, anything that's going to give you cancer or be fatal in high doses. (We'll get to carbon monoxide so you can argue with me on that one, but I'm trying to separate these things out.)

So I gave that a three. If you do have this kind of a system, and it's in your home, and you are in your home every day, then you would give that a 1. If you had that only at your vacation home, then you would give that the appropriate frequency.

Let's assume that you had given it a 1 because you have that, so you would put a 1 in that box. Then we would go over here to our risk matrix, and we gave it a 3 to 1, so that is a B. B is undesirable, take action soon so put it here and give it a B.

Then over in the right hand column, I give suggestions of what to do. So your immediate solution would be to open windows often. Even if it's winter time, even if it's summer time, whatever the weather out there, try to get ventilation, and try to get your windows open and get the fresh air circulating in your house.

Turn on ceiling fans, turn on fans, get things moving and that will help to get rid of and ventilate any combustion products. Then a long term solution is to install (and I've got this recommended in several places here) what I call a fresh air HEPA filtering / ventilation system.

Now, what is that? HEPA stands for High-Efficiency Particulate Air. It's not necessarily for you to remember that because any heating and air conditioning company will definitely know what HEPA means. But you can buy a filter, a whole house ventilation system that actually raises fresh air, filters it through this high efficiency particulate air filter and brings it into your home and also exhausts the other air of your house.

People who have installed these systems just cannot stop talking about how much better they feel. People get rid of asthma conditions, they get rid of allergy conditions, they get much more energy, they get rid of migraines and headaches and all kinds of systems. It's because they are living in tight buttoned up houses that are energy efficient but they are not healthy anymore.

So if you have this situation or a bunch of other ones that I'm going to talk about, it's very, very important to at least consider some kind of a ventilation system in your house. If you have to, just turn on your house fan and let that run for a while. That's not the best way because it's not necessarily pulling of fresh air in, and it's not filtering through a HEPA filter, but at least it's getting things moving, and that's important.

Carbon Monoxide: Do you live or work in a building again with a forced air heating system again fuelled with natural gas, propane or oil and you don't have a carbon monoxide alarm?

Carbon monoxide is one of the products of combustion. It's a product of incomplete combustion; you very rarely have complete combustion. If there is a leak in the flue (and there is definitely carbon monoxide in the flue), then that's going to get into your house.

It's very, very easy and inexpensive to buy a carbon monoxide alarm. I will tell you that I have saved a life by purchasing this. It's kind of a funny story: one year we bought a carbon monoxide monitor for my husband's parents. You know how when you get somebody a present, and you are not very sure if they like it or not?

They unwrap this present and there is this carbon monoxide alarm. They really honestly didn't know what it was, but they were very gracious, they said thank you so much for this thing that you gave us. But they did install it, because they didn't want us to feel bad that they didn't like our present. So they did install it in their house.

A little while later, I don't know, a few years they woke up to an alarm in the middle of the night, and it really scared them of course. They had forgotten about it and weren't expecting it, but it did go into alarm. So they called the gas company, and when the gas company arrived, there was a leak.

The person who was servicing their heater said to them that actually they were so lucky that they had that alarm, because if they hadn't had it, they wouldn't have been alive in the morning. So just hearing that and just knowing that we were able to do that even for one person is really heartwarming.

I need to share that with everybody. I have a carbon monoxide alarm in my house, and again they are so easy to get. You can go to Home Depot and buy a first alert carbon monoxide alarm and install it in your house immediately.

Ritamarie: Can I ask you a question about that?

Donna: Yes.

Ritamarie: Is it just for the forced heating? We don't have forced heating in our house, but we have a propane heater or gas heater for our hot water, and we also have it for our stove.

Donna: If you have forced air, that's how it's going to get blown around your house. If there is an actual natural gas leak or a propane leak from one of those things, they are odorized the gas so you can smell them. That's a safety feature because the carbon monoxide alarm won't pick up a gas leak.

There are alarms that you can get. They call them LEL detectors. We used them in the plant, but I actually honestly don't know if there is one available for a home because that's why they odorize the natural gas.

Ritamarie: Okay, got it.

Donna: So no, a carbon monoxide alarm won't pick that up.

Ritamarie: But we don't need it is what you are saying because we don't have the forced air, we have an electric heating. Okay, got it.

Donna: Right, because it's a matter of when you have a leak in the flue. The fuel is already burnt, and it's going out the flue, and you have a leak there. The forced air system circulates it through your house.

Ritamarie: Got it.

Donna: **Carbon Monoxide and Combustion Products:** This is open flame heaters like kerosene and propane heaters that are open. These open heaters, space heaters that are indoors. This does not mean anything that is vented to the outside. These are heaters that you bring in and burn. We are getting some serious amounts of combustion products and carbon monoxide.

My suggestions are to look for alternative healing appliances that do not have open flames or are vented to the outside. I say open windows and install a fresh air HEPA filtering system which would help. But really number one is my preferred method: just don't use open flame heaters indoors. It's not healthy, and again you can install carbon monoxide alarms for that.

Carbon Monoxide and Sulfur: This is rare, but I wanted to bring it up because there are people who work in places where there is vehicle and generator exhaust gases. Exhaust gases just like what comes out of your car are hazardous. So if you are one of those people that do work in that type of environment, you would end up having a 1 because you do this one or more times a day. That may be a high risk for you. So I wanted to make sure I mention it and give some suggestions.

This one is one of the few places where I said you might want to consider respiratory protection because exhaust gases are extremely hazardous. If you can get a respirator and wear it, that's better than working in that every day.

Dust: I wanted to bring up dust because some people are allergic to dust, and they know it. So they automatically want to stay away from dust. But dust is basically hazardous to everyone when the environment is overly dusty.

The rule of thumb is if you can see the dust in the air, you are in an environment that is too dusty. Dust is considered hazardous. When working in a place, we have to keep dust below the level where it will be visible.

Using that rule of thumb is the best thing for now. So if you live or work in a dusty environment, you work somewhere where you are sanding wood all day or sand blasting or any number of things that you do or if you have a hobby that is very dusty. If you work in the basement, and you are a wood worker, and you've got lots of dust, you need to get some kind of a dust collection system. You need to stop breathing dust in on a regular basis because it is harmful even if you are not allergic. It's just breathing in solid particles into your lungs, and it's going to cause disease and illness if you don't control it.

Again this is another place where I recommend respiratory protection, and I also recommend local ventilation. That means like a dust collector or something that is going to remove the dust from your breathing zone. That's another really important point to make too that I am trying to take out of the industrial world and bring into the community is the concept of what do we do first?

We've got a lot of different solutions. What is the best solution? We always consider personal protective equipment like PPE, (which means things like respirators and gloves and chemical resistance things) and all these things that we can put on our bodies to protect us from these exposures. We always say that those are a last resort.

We want to try to eliminate the hazard first. Then we want to try to control the hazard. So by eliminating, it's getting rid of whatever is causing the dirt. By controlling the hazard, we are ventilating. We are getting it out of our breathing zone. Then as a last resort, if there is too much dust, and we are still being exposed, then we go with respiratory protection. So that's always the last thing we choose.

Pollen: So **pollen** is an allergen; that's why I gave it a 3. But the question is: do you work outside exposed to pollen? I originally had this question that said 'do you work outside in the spring exposed to pollen' but then I realized that there are some people like Dr. Ritamarie for whom it's summer all the time where you are.

So if you do work outside, exposed to pollen especially if you have seasons, then I would pick a likelihood that matches the number of seasons wherever you live and I would put that here. In my case, I was in Pennsylvania so our pollen season is maybe four months out of the year, maybe five.

I'm going to give that at 3 in our case. For me pollen would be a 3 and a 3 and a C. If I was symptomatic, I would consider respiratory protection because some of my family members do wear a mask like a dust mask outside. Dust masks do filter out pollen because pollen is a form of dust.

So anyone that is symptomatic, if you are cutting the grass and you are outside with pollen, I would wear a dust mask. I think that would definitely be the best way to support your immune system and not antagonize it. I would also implement other strategies to support my immune system such as taking antioxidants and doing green cleanses and just doing things to support your body's immune system.

Then what else I would do if I had to work outside all day in pollen, and I was having symptoms, or I was trying to prevent symptoms is I would do everything I could to reduce my exposures when I'm not working. That's true of any of these things. If the answer to these questions is 'yes' when you are at work and 'no' when you are at home, then what I would do is I would try to of course reduce the exposures at work, but then I would also try to reduce my exposures when I got home. So I would put in good ventilation in my home. I would make sure I wasn't pulling more pollen into my house while I was sleeping.

Ritamarie: I love this matrix thing. It makes it so clear.

Donna: Thank you, it does make it so easy, and this week I spent eight hours a day three days in a row going through every single part of a particular chemical plant and asking these questions and ranking every one of the scenarios.

That's exactly what I'm doing here with you, and it works. It makes it so clear; you break it down into these little parts. I'm not trying to analyze an entire system in one place. I'm breaking it down to different hazards and looking at each one. Once you do that, when you break it down, it's so easy.

Radon is a really important one. If you live in an area that's designated as a high radon area, and you don't have a radon abatement system in your house, then what you need to do is check. I've given you the link. You can go to the EPA website (http://www.epa.gov/radon/zonemap.html) if you are in the United States.

Now I realize there are people who are not in the United States, and on my list of things to do to improve this product is to look up if you live in other countries, if there is a way that you can check for radon.

I know that the radon map in the United States is very accurate, and people who live in these high radon areas should definitely have a radon test done. You can do that yourself; there is a space right there on that EPA website where you can request a free radon kit. They'll send it right to your house, and you can do the test. It has instructions and everything. Then of course you have to send it out for analysis, and you have to pay for that, but it's not very expensive.

I've given that a 1 because radon is a significant cause of lung cancer and definitely a lot of other lung diseases. We are just starting to realize what a serious problem it is. Go and see if you are in a high radon area, and then test the area in your home. If your results are high, you need to look into radon abetment systems which are not cheap, but they are definitely worth it.

Then of course then you have the radon abatement system, and definitely before that you need to do serious ventilation and open your windows often and be outside more often. Especially don't close yourself up doing a hobby in the basement because that's where the radon comes into your house. It seeps in through your basement walls and your basement floor from the ground.

Then we have **Volatile Organic Compounds** VOC's. Most people have heard of VOC's. You've heard of things like low VOC paint. If you are painting the walls in your house, it used to be full of solvents. And that's what a VOC is, it's something that is very volatile, it has a strong odor and evaporates readily.

That's what the word volatile means: it evaporates easily in air. One thing that everybody would be familiar with that is a VOC is nail polish remover. That is a solvent; it's mostly acetone, and it evaporates rapidly. You know that if you keep a bottle of nail polish remover around for a very long time, especially now that they keep it in a plastic bottle, it loses its potency. Because it really is evaporating rapidly into the air every time you open it, and now seeping through its plastic bottle.

VOC's are a problem because they are neurotoxic. Depending on which solvents are in these various things, they definitely affect brain cells. Some of them are hormone disruptors. Some of them are considered to be mutagens and teratogens.

Mutagens again affect your genes, and teratogens affect an unborn fetus. One of the most common sources of VOC's is **plug-in scented oil air fresheners**. That's the one that I fell for. I absolutely loved my house to smell nice. I always thought it should smell nice, and I always made all kinds of effort to keep potpourri and other scented things.

But then I learned what's actually in fragrance. Actually I didn't learn what's actually inside them. I learned that nobody knows what's in some fragrances because they are protected by copyright and trade secret laws. So even if you look up the ingredients all you are going to see is the word 'fragrance' and you have to learn to associate that the word 'fragrance' or 'scent' definitely means that it has VOC's in them, volatile organic compounds.

So, if you use plug-in scented oil air fresheners, and you use them every day in your house, you have to give that a 1 and so, a 2 and a 1 is going to be an A. That means you need to address that and get rid of those scented air fresheners. Now there are a lot of things you can use. The first thing I say is get them out of the house, don't use them. Number two, I say if you really, really want to have your house to smell nice, you can diffuse essential oils. I have a link here that you can go to if you are interested in purchasing essential oils.

Another source of **VOC's**: I don't know about you, I have never had my nails done. I just have never felt the need. I used to do my own nails when I was really young, like in high school. But I would get headaches: headaches from nail polish and headaches from nail polish remover.

I don't feel well when I go to places like Staples Print and Copy center or somebody's copy room at my client's or whatever. The solvents apparently give me instant headaches, and maybe that's because that's my warning system.

If you work in any of these environments - where you are in a nail salon - I can't walk past the door of a nail salon because I can't take the smell. If you work in a print and copy center, or your office is located right next to the Xerox room. If you are a painter, if you work for a company that makes paint, you work somewhere where they are doing renovations in the building.

I can go on and on with possible places where these could be, but if you are exposed to these types of solvents every day, then this is a concern for you. You are going to have to give this a 1, and that's going to be an A.

Maybe you get your nails done once every 10 years like when you go to a family wedding or something. In that case you'll probably give that a 4, a 2 and a 4 is a C which is conditionally acceptable. In other words maybe you want to wear a respirator or something when you are painting your nails. Maybe you want to use some kind of stick-on nails, although you have to be careful because you don't know what's in the glue and stuff for that.

So this one I'm going to go with a 2 and a 4 because, in my case, mine would be a never so that would be a 4 and a 2 and a 4 would give me a C. So what do you do? You open windows often. You try to get some kind of a filtering ventilation system, but I realize that if you work in an environment like this, you may not have that option.

Although employers are required to address exposure so maybe this is a good time to say this. If there is anybody listening here who feels that they are working somewhere in an environment where they are exposed to something, it's not only important, I think it's your responsibility to bring it up and to try to get the building owner, the company owner, your boss, manager, whatever, somebody be interested in.

Because if you are being exposed, I'm sure there is lots of other people being exposed also. So again I don't think it's being a pain in the butt, I don't think it's making waves, I think it's something that is your responsibility to bring it to the attention of whoever can get something done about it, and in the meantime of course open the windows.

Another source of **VOCs** is heavy duty cleaning products, paint thinners, anti-greasers. Some people are just real cleaning fanatics. Perhaps you have a hobby, and you have to soak paint brushes in paint thinners every night, or if you just really like to clean, and you go to the Home Depot, and you buy these industrial strength cleaners. Anything that is made with heavy duty or industrial strength does definitely contain lots of solvents which are volatile organic compounds (VOC's) which again are neurotoxins and have other issues. So that's also ranked a 2. My suggestions for that is, number one, to consider alternative cleaning products of course, and number two, is always use them in adequate ventilation.

So if you are soaking brushes in paint thinners, do it outside. Put the paint thinner in a container, stick it outside, and put the brush in there. Don't leave them soaking in your basement while you go sleep at night. Open windows often. If you rank high on this one, then consider installing some kind of a ventilation system to get these out of your hobby room or wherever it is that you do this.

Consider wearing respiratory protection when you are using them. I mentioned earlier that dust masks are good for pollen, dust masks are good for dusty environments but when we are talking about solvents, you need a real respirator - a respirator that has cartridges that are designed to remove vapors like toluene and benzene and xylene.

There is a whole bunch of them that I could name - the acetones and things like that. You cannot wear a dust mask. You would still be able to smell it. You would still be exposed, and even worse, because dust masks collect these vapors, then the dust masks will be contaminated. And every time you wear it, you'd get even more exposure.

So if you are considering respiratory protection, consult an expert. Send me an email. When you are protecting yourself against solvent vapors, that's not something you go to Home Depot and buy. You have to get the right kind or you won't be protected.

Then of course wear gloves when you are contacting any heavy duty cleaners or any types of solvents because, as I always say, don't put anything on your skin that you would not be willing to eat. Touching it with your hands is just as bad as breathing it in. It is just as bad as putting it in your mouth. So if you must use these things, if you are going to give this a 4, if you doing it once every 10 years or so, just make sure that you protect yourself and wear some gloves when you are doing it.

Another **volatile organic compound** (VOC) is scented candles. I already talked about how smoke is toxic because of the particles that are in there. It doesn't matter what you are burning, and if it's smoke, it's toxic. But when you have scented candles, you have the toxic smoke and you also have these VOCs, and then you don't know what kind of combustion products you are going to get from these VOCs. This one is between a 2 and a 1, and I went with a 2, and then I made the same suggestions as I did for scented air fresheners.

So while I was on the subject of **smoke**, I of course needed to mention cigarettes, even if it's second-hand smoke, cigarettes, cigars and pipes. We've all been told a million times how bad that is for us, but some people still like to smoke. I just thought it was necessarily to mention that second-hand smoke is just as bad, if not worse. By second-hand I mean you are not the person smoking but you are around someone who is. So I think it's really, really important to avoid second-hand cigarette smoke as much as possible. Again if you work somewhere where they have a smoking section right outside the door and you have to walk through it every day, I would do anything to avoid walking through a cloud of cigarette smoke.

Another place where you get **smoke** is from cooking, space heaters, candles, oil lamps, incense anything that is on fire. There shouldn't be anything that's on fire in your house.

Again my suggestion is, eliminate the smoke, open the windows often, if you must keep it in your house then you need to go and get a good filtering and ventilation system.

It wouldn't be complete if we didn't mention fire retardant chemicals. if you have recently, let's say in the past three years purchased new furniture, a new car, a new carpet. If the answer is yes, you need to enter a 1 for likelihood because you are being exposed every day to fire-retardant chemicals. It's a fact of life and I don't know if we are going to change that any time soon because in this countries I know that you cannot buy furniture, carpet or a new car that do not have fire-retardant chemicals in them.

These are serious hormone disruptors. In fact that plant that I worked at for months and that was years ago back when I started, I was making a chemical which is a phthalate which is a serious hormone disruptor and it was a fire retardant for vinyl car seats.

Anyway I gave that a 2, I toyed with giving it a 1 but it really is a hormone disruptor and so that's where it belongs. But really you need to open your windows often, definitely ventilate your house if you have new furniture at least for the first three years once you've purchased it. Makes a case for Craigslist when you think about it because if you buy furniture second hand all the fire retardant chemicals have already off-gassed.

Teflon, people look at Teflon pans, and you think wow should I cook in them because does the Teflon get in my food? The answer is yes, it does get in your food from the Teflon pans if the Teflon is flaking off.

To a certain extent, the vapors and stuff that are coming off of the pans are obviously contacting your food and getting in it. But the biggest hazard really with using Teflon cookware is that it off-gases especially when it's on high heat. So when you are cooking in your kitchen you are breathing in these vapors and these are extremely toxic.

There is the story that if you have a parakeet, the parakeet will just suddenly die in the kitchen when exposed to the Teflon that's off-gassing from the Teflon pots and pans. My solution over here is to obviously replace your Teflon-lined cookware with either ceramic-lined or use stainless steel or use glass cookware.

I had to put this caution here. Use cast iron cookware only if you are sure that your blood iron levels are not too high. You mostly hear about people who are anemic and don't have enough iron in their blood, but there are just as many people who have too much iron in their blood.

Using cast iron cookware does add iron to your diet, and so you have to be careful for that reason, but I didn't see any other hazards with using cast iron cookware.

The caution that of course the people who make Teflon say is that if you use their cookware, you should cook on very low heat and open your windows and install a strong kitchen fan. Of course that's a solution, but I personally think that it's much better to eliminate the source of the hazard instead of trying to control it. You could always wear a respirator while you are cooking, but that would not be too much fun.

Dry-cleaning: I just want to mention that if you bring conventionally dry cleaned clothing into your house and hang them in the closet, you are being exposed to **perchloroethylene**, and you can even go on EPA website, www.epa.gov and read about perchloroethylene and some of the things that are being done to try and find substitutes and trying to eliminate it.

There are tons of organic drycleaners popping up all over the place now and so when I have to have clothes dry cleaned that's what we do, we take those organic drycleaners.

If you use a conventional drycleaner, my suggestion is to hang your recently cleaned clothing either outdoors or at a very well-ventilated area for a day without the plastic bag over it, and try to get some of those vapors off of the clothing before you put them in your closet.

But then there is another group of people and this is very serious, people who live or work in the same building as a conventional drycleaner because they are finding that this is permeating through buildings. Buildings are being condemned because they are contaminated with this perchloroethylene.

I hate to make a recommendation for somebody to have to move but really this is one situation that I would seriously consider moving if I was living in or working in a building where there was a conventional drycleaner. My second choice would be to put in a really good ventilation system and definitely do whatever you can to support your immune system because it is being assaulted every day with these vapors.

Then we have **pesticides, herbicides**. I put this section in here because I just wanted to emphasize how easy it is to stop wearing your shoes in the house. There was a documentary where they did a test of what's on the bottom of our shoes.

They had people take new shoes so they were clean, and they put them on and just walked down the street to the convenient store, walked around the convenient store for a little bit and came back. The soles of the shoes were picking up all kinds of stuff: hydrocarbons, petroleum, and again, herbicides and pesticides from walking on the grass.

Just all kinds of germs and bacteria and everything because everything you walk in sticks to your shoes and then you come in and you walk around your house and it all gets in your house. This one here is an easy fix. I gave it a 3 because there is no way to really test what's on your shoes. I think actually that's probably more hazardous than that, but if I can get you to not wearing shoes in the house, I'm happy whatever I have to do.

Then I want to talk about **heavy metals** because I had the pleasure of interviewing my dentist. I've given you the link here, and you can go to this link and listen to the interview that I did with this dentist. I didn't interview him about being a biological dentist or about dentistry in any way. I interviewed him about how he keeps the air clean in his office.

I was shocked at what I learned, number one, what he does and, number two, that other dentists are not required to do. In the dentist's office, even if you don't have mercury fillings in your mouth, just walking into the dental office is a serious amount of exposure.

You are being overexposed just by standing in there, and you are being over exposed. If I was in a chemical plant, and I had a worker that tested with the kind of exposures you would have if you walked into a dentist's office, I would have to take him out of that job until I fixed that problem. That's what was so shocking to me that there is no requirement for conventional dentists that I know of anyway, and this dentist that I interviewed he said he didn't know of any requirements to clean up the building and the air so that people aren't exposed.

So if you live or work in a building where there is a dentist office, you should definitely consider having yourself checked for mercury. If you have a lot of accumulated mercury in your body, and you can't attribute it to anything else like a mouthful of mercury fillings or something, then this can be a serious source of mercury.

The statistics on dental workers are very high for the amounts of mercury they carry around in their body even if they don't have mercury filling. Then of course if your exposure is only when you go to the dentist, the answer is to find a biological dentist.

I've given you another link that takes you to a website that helps you to plug in where you live and then you could find a biological dentist near you. I highly recommend that.

Then of course we have to ask a question, 'do you have mercury fillings in your mouth?' If the answer is 'yes', you have to put that as a 1 here because you have them in your mouth every day.

I definitely recommend getting the mercury fillings taken out of your mouth and then even more importantly if you have high mercury levels, really, really consider finding a really skilled healthcare practitioner that knows how to get mercury released from your body because it's not an easy thing to do and sometimes it's more toxic if you release it than if you leave it in your body and it releases slowly.

I've been talking for quite a while; I got you through the air section. There is the water section; there is a food section; there is a personal care products section; and there is the cleaning products section. Each of those sections coming up are smaller than the one that we just went through, and they are easier and more straightforward so I think this is excellent spot, Dr. Ritamarie.

Ritamarie: I think this was great, could you scroll down a little bit so we can glance—

Donna: We have chlorine so chlorine I have given you some ideas of what you can do, but I also put in here an excerpt from the Brita home page itself which tells you what a Brita filter will remove and what it will not.

If it's too expensive for you to get a water purification system, or if you rent and you are not allowed to put one in, then option three I've given is just get some kind of a filter and a Brita filter will remove chlorine but not as near effectively as some of the other types of purification systems.

I also go into chlorine as far as swimming in a pool. We couldn't talk about water without talking about water fluoridation so I've given you links here where you can go. I think this is the fluoride action network. You can go to this link and find out if your water is fluoridated if you live in US. You could go there and you can just type in your zip code, and it will let you know if your water company does put fluoride in the water. Some states have to, and mostly municipal water companies have to, but private water companies don't have to.

I know here at Pennsylvania I've worked for several water companies, and the main one in Philadelphia does not fluoridate their water. So it is possible you live in an area that doesn't put fluoride in, but it's very important to understand that a Brita water filter will not remove fluoride. So if you are going to remove the fluoride from your water you have to go with an RO system or a distillation system or something of that sort.

Ritamarie: Although this isn't chemical related, have you come across any way to mitigate the electronic and radio frequency pollution that we are all subject to everyday?

Donna: Yes, I have. Actually I had that in this, but it didn't fit being in my category so I took it off for now but I definitely I'm planning to put a section of electromagnetic frequency type radiation in there. What I do I have a special case on my phone it's called a pong case.

I put that on my phone and it has a chip in that directs the radiation away from your body, but it doesn't help with the amount of radiation that you are exposed to in a room. Even if you are just in an office where you are all going to a conference room to have a meeting and you've got fifteen people in there and every one of them has a cell phone, and they are all radiating. So even if you are protecting yourself with your phone you are still getting radiation from everybody else's. We are getting radiation from our computers, everybody has got routers.

I did have the pleasure of meeting a woman who runs a phone detoxification center, and when you go in there, she will not allow cell phones to be on for that reason. She also will not allow wireless internet in her building. She has internet, but it's all wired. She has found that some people are so sensitive to it that she won't have it.

One solution that I'm actually looking into right now for my own home is, if you get a wireless router in your home, that you can buy one with a switch that you can actually turn the router off at night or when you are not using it. So if you can turn the switch off and then turn it back on in the morning when you are ready to use it, that will certainly decrease your exposure for eight hours.

I can't remember the website now, but there is a place that sells shielding material, like shielding fabrics, and you can make a canopy for your bed. You can make a blanket out of this shielding fabric that at least when you are sleeping, you can be shielded from the radiation.

They even sell clothing that is made from shielding fabric. I don't have any idea whether it's effective or not, but I do know it's out there. Some people who are really sensitive who can really feel the radiation are saying that it works.

Hopefully that gives you some ideas of what I've found so far.

Ritamarie: That's great, and Craig had mentioned just getting a timer on your router so that it automatically turns off.

Donna: Oh yes, that's a good idea. There is also a boy, his name is Lloyd Burrell, I believe is his name. He has a really good website all about EMF pollution. He talks about a lot of things like things we don't think of like the amount of radiation you are getting in your car.

Years ago our cars didn't have a lot of electronics and a lot of sensing devices, but now we've got tire pressure sensors and all kinds of other sensors in the car that are designed to I guess keep us safe as far as safety on the road, but you are sitting in that car for any length of time and all this radiation is around you and inside the car. He has a lot of solutions; his name is Lloyd Burrell.

Ritamarie: Sounds good, yes. And the other thing about being in the car is the cell phone. It's a good idea to put the cell phone on airplane mode when you are in the car because the waves are bouncing all over the place.

Donna: Yes. I just saw a comment pop up, Lloyd's website is www.electricsense.com.

Ritamarie: Okay, thank you, and then the other thing was dryer sheets. Someone said I didn't see that you put dryer sheets on there is that something you are going to add in the future or could add in the future?

Donna: I should definitely add that in the future. I actually forgot about those because it's been very long since I used them, but yes that was the first thing I got rid of mostly because of the fragrance but also there is just a ton of chemicals in them and the problem is that it's kind of considered a cleaning product so it's not required to be labeled.

They don't have to tell you what's in them but they are very unsafe, and I have tried buying the kind of Seventh Generation makes a dryer sheet. There is another brand I can't remember but I bought it in the Whole Foods store.

But they are not the same; they are not as effective, so I just stopped using dryer sheets altogether. I just use liquid fabric softener that is made by one of the responsible companies like Seventh Generation.

I have found that you can take a rag and put a couple of drops of an essential oil that you like the scent of, that is helpful. You put it on the rag, and you put that in the dryer. Also I have found that if you take a little bit of your liquid fabric softeners, and just put it on a rag or a wash cloth or something, and dry it in the dryer, it has the same effect as a dryer sheet.

Ritamarie: I don't know, I have never used a dryer sheet so I don't even know what they are for.

Donna: I instantly sneeze when I get near them now.

Ritamarie: Yes, I can imagine.

Donna: It's funny how you get too sensitive to it as soon as you stop using it.

Ritamarie: Oh, fantastic, this has been awesome, Donna. I know there is so much more; you've still got and other nine pages of your stuff that you didn't even go through,

Donna: Yes. I'm scrolling through, you see here I also have radon under water, as radon seeps into your house in the basement, but it also could come in through your water pipes if you have a well. So that's another caution, but there are things that can be done.

Then I get into a whole bunch of things that are in the things we eat. Then if you scroll down, I have personal care products. I tried to hit the big ones, and again I will be adding so many more things to it.

Then cleaning: I only have two things because again you don't really know what's in our cleaning products because they are not labeled. But I've given my favorite resource as I always give the EWG website and they now have a cleaning products database that is very comprehensive. I have found a lot of things that I thought oh this won't be on there and sure enough it is. So definitely take that website (http://www.ewg.org/)—it's my bible. I love going to that website, I mean I have a lot of other resources for finding out about these chemicals, but I find that they do a really good job of putting it in charts that everybody can understand in most cases.

Sometimes I get a lot of questions about what does this mean or what does that mean, but in general they do a good job so that's why I didn't think it necessary to start at the bottom here because this is much more self-explanatory than going through the air stuff.

Ritamarie: Yes, it's awesome, it's very helpful. You did enough of them that we get the idea and can do it. It could be daunting to just open this up and try to use it so it's really helpful to have the explanation and I love the whole exposure risk thing.

I think you convinced me that I need to do something different on my swimming pool because I'm not willing to give up swimming and do some salt solution or something like that. I just so appreciate you being here and doing this for us. Thank you so much, it's always a pleasure to hear you.

Donna has spoken at three of my four events so far. The first one she came in just as a participant, and she answered so many people's questions that I said I need you to just get up and teach people this stuff next time so she speaks at all of my live events and shares this stuff.

Thank you again so much, Donna, for being here, I so appreciate you, and your willingness to spend your time. I know how busy you are, and this product is great, it's awesome, I can't wait for it to get into more people's hands. Alright, thank you, Donna, thank you everyone, bye-bye now.