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Hey everyone. Today we're going to talk about Breast Implant Illness, and I want to share with you some of the research that's been published on it, and I also want to talk to you about some of the limitations of the research, and then I want to also talk to you about some of the mechanisms using our contemporary understandings of toxicology and immune tolerance, as it relates to Breast Implant Illness.

The first thing is if you're not familiar with Breast Implant Illness, it's basically a condition in which women that had breast implants notice some degree of symptoms afterwards. The time span can be immediate to years later, but the most common symptoms that they have is basically fatigue, joint pain, mood changes, swelling, sleep disturbances, rashes throughout their body. Some even go on to develop an autoimmune disease, which some people become suspicious if that was one of the triggers for the autoimmune disease. But it's basically inflammation, a poor functioning brain and general fatigue, those are the main symptoms.

The interesting thing about Breast Implant Illness is when you look at it, and you look at the studies done on it, it doesn't always have to also involve leakage of the breast implant. Let me go over a few important concepts first. First of all, the question of saline versus silicon doesn't really matter. There is at least 15 known toxic substances in current breast implants, whether they're silicone or saline, there's benzenes, there's formaldehyde, there's many, many different compounds in it, besides just the saline or silicone.

Secondly, you don't have to have leakage to develop symptoms. If there is leakage then there's a variant concern, and then one of the thought processes that takes place is that if you actually have Breast Illness Syndrome, you have to have leakage or you have to have fluid around the breast. Sometimes they'll do an ultrasound around the breast implant and they don't see significant fluid around it or scaring they kind of dismiss the condition, but that's not an accurate way to look at it. Those things don't have to happen.

The tricky part is, there is really no laboratory test or any diagnostic criteria to determine if a person that has breast implants is starting to develop Breast Implant Illness. That's one of the areas that become very frustrating. And to be quite honest, you don't really know if the breast implants were actually causing a problem unless they're removed. The problem we have right now is we don't know what the risk factors are, known and published, that can cause a person to react to breast implants. Certainly, there's some mechanisms that can be involved relating to immunological fitness and the ability to metabolize chemicals.

The second issue is... Since we don't know what those risk factors are, we don't know which people should consider or not consider getting it. If they do have the breast implant we don't necessarily know that that's making them ill or sick. When you look at

the literature, they haven't done these multiple randomized clinical trials where you look at all these different factors and compare one group to the other and have real clear evidence. There are some studies that are coming out.

One of the most recent studies was a study that was published in the Annals of Plastic Surgery just published July 2020. What they did is they looked at 750 women that had their breast implants removed and they wanted to look at their most common symptoms. They checked joint, muscle pain, memory issues, fatigue, rashes, the breathing and so forth. They wanted to see if those symptoms changed. They found that in 750 patients, when they did retrospective analysis, and they went back and determined in a group of patients that have had the breast implants removed and how they felt, they found that there was some improvement in some of these symptoms.

They were not all statically significant which could mean that it wasn't really that accurate and maybe the population sample was too small. Retrospective study's not really the highest level of evidence. This is the frustration people have when they're trying to understand Breast Illness Syndrome is just there isn't a lot of good research and studies done out there. It's actually very hard to design a clinical trial to do this and the time, energy, and money involved with this will take some time.

So if you're suffering from an autoimmune disease or chronic inflammation or brain fog, you think you may have Breast Illness Syndrome, then there isn't an enormous amount of evidence to support [inaudible 00:04:46] that is the cause or there's also not a lot of evidence saying you shouldn't take them out. Obviously, for most people, if they're chronically sick they're going to take them out because they don't want to deal with the risk factors.

When you look at Breast Implant Illness, that's one of the frustrations that clinically are there. So we don't know what the risk factors are typically, at least published, that can make some people have some issues with it. Obviously, things like auto immunity, inflammation, if you have a chronic inflammatory condition, if you have an autoimmune disease, if you have Inflammatory Bowel Syndrome, anything that is really inflammatory, that's always signs of immune strangulation, it's never a good idea to add chemicals into the mix. If there's a history of auto immune disease in the family, it's probably not a good idea to add chemicals to the mix.

The other issue is that there's lots of criticism with some of these research, where they just do a questionnaire and ask the patient if they feel better, because for most people that have the implants removed, they may feel like they feel better because they were so worried about it, now that it's out, they can relax. There hasn't been a lot of studies done where they're looking at physiological changes.

Actually there aren't any studies where they really look at immune panels changing, and immune markers changing and inflammatory markers changing. All we really have is questionnaires. Now, the mind is really powerful, so from a psycho neuro immune response, if you think something is causing you illness and you remove that, that may

have tremendous benefits on your health. Whether the physiology was published in literature or not, it's important for you.

In my own clinical practice I see this question brought up many times. I'll have a patient, for example, come into my office and they'll have some type of chronic auto-immune disease, and they want to really implement a diet and lifestyle approach, try to mitigate and come down their autoimmune disease inflammation, or expression, and they go, "What do you think about breast implants?"

And the question is from a very basic model, if you have an autoimmune illness, if you have any kind of chronic inflammatory illness, having an increased chemical load is never a good idea. So that's one thing. The second thing though, is it really is such a

Can I close the door?

Sure. It is really such a personal issue. For some people it's a sense of self, for some people they've associated with the breast implants and who they are. So it's pretty complex situation, and each person has their own psychological needs, their own sense of self, their own value of risk factors. So it really is up to the patient. For the most part, I personally believe you shouldn't put extra chemicals in your body no matter what, unless you have absolutely have to.

So that being said, let's talk about what do you do, what are the options, if you have it should you remove it or not remove it. Again, that's going to be a personal call, but I would definitely say, if you have chronic fatigue issues and exhaustion, then that should be an issue. Now, the problem is when patients then start going online, and they go to all these different forums and they're seeing all different types of responses.

So let me give you some examples. What type of response is, "I've had breast implants, I've had it removed and it didn't do anything for me. I didn't feel any better or I actually felt worse." Another response is, "Oh. I immediately felt better, rainbows came out. Everything was better, as soon as I had them removed." That's another response. Other responses, "Initially felt better, but then I was back to my symptoms a year or two later."

So let's talk about these and let's talk about this really important concept, which is what we call immunological tolerance. And we've talked about immunological tolerance before in... Immunological tolerance is really our immune system's ability to have a proportional response to some kind of antigen, whether the antigen is a pathogen like a virus or bacteria, or whether the antigen is a chemical.

Breast implants significantly increase a chemical load to the body. It's been reported and well understood, and then those chemicals may cause reactions for some people and they may not. So there's this concept of what's called chemical tolerance, which is how you react or may not react to chemicals. And all of us may have had different experiences where, or chemical tolerance may be different at different times.

So for example, you may have noticed a time in your life where you were extremely sensitive to cigarette smoke. Maybe you were flying in a long airplane trip, and then you got into an old, I don't know, hotel room that was kind of moldy and you were just tired and exhausted and you're breathing in some, let's say, mold spores. And all of a sudden you go outside and you sit in a restaurant and someone is smoking, and then that smoke really bothers you that day. And you've never noticed it before. So your immune tolerance is dynamic. It can change over time, just like your general immune system can change over time.

So your immune tolerance has a lot to do with how we react to certain chemicals. Now, for some people, they have really intact and healthy immune tolerances. They have a very high anti-oxidant producing system. They have a diet that really promotes a lot of superfoods and their physiology is set in such a way where their liver biotransformation pathways or detoxification pathways, that clear chemicals are very efficient, their microbiome is healthy and they can handle a lot of chemicals before they really have any adverse effects.

Now you take another person, maybe genetically, they don't have optimization of clearing out some of the chemicals, like PVCs or toluenes or benzenes that are in the best implants, just genetically they're inefficient at that pathway. And in combination with that, maybe they have a lot of inflammation. Maybe they have celiac disease, or they have chronic inflammatory disease or some kind of inflammatory bowel syndrome. And then those chronic inflammatory states start to deplete their antioxidants. And the combination of genetically not being able to clear some of the chemicals that are in breast implants, with being a chronically inflamed state with antioxidant depletion lowers their immune tolerance. So then they may have a reaction to a breast implant while some others may not. Excuse me.

So those are some of the variables and factors. It's going to be different for each person. So that's one of the key things. It's very frustrating for patients, because it's not black or white. It's just not the implant itself. It's your immune system's tolerance and its fitness, in combination with the chemical. And your immune fitness is based on your genes, and how you can metabolize certain chemicals and how effective your immune system is, and immune tolerance system is plus environment that expresses those genes to turn on in a good way or in a negative way, and then in combination with the implant.

Now, some patients may have some degree of healthy immune tolerance when they first put on their implants, but five or 10 years go by and they develop an autoimmune disease, and now the breast implants can really be a problem for them. They merely take the breast implants out, they feel the inflammatory load goes down, but they still have an auto-immune disease. So they go back to some of their old symptoms. That's a scenario in which breast implants had a part, a role to play, but just removing doesn't necessarily cure or reverse the autoimmune disease, and that's the other key concept.

Once you develop an autoimmune disease and the genes turn on to attack your own body, removing implants or removing the trigger doesn't necessarily reverse the autoimmune disease. Other factors now can also turn on the expression, the autoimmune disease, whether it's stress or lack of sleep, or certain food proteins or different types of environmental triggers. And it's not just solely the breast implant, which is very frustrating, because some women that really do have Breast Illness Syndrome and had some reactions to it, they're hoping when that they get rid of their breast implant, that all their symptoms should go away.

But that's also not the case, is that the immune system can change to the point where you develop an autoimmune disease. And for a patient suffering from Breast Illness Syndrome, what you have to understand is if you suspect that it's causing some chemical immune reaction for you, there's a point if you cross over to the development of an autoimmune disease, even when you take it out you now have an auto-immune disease.

Now, the time period from where you have no auto-immune disease, till you develop auto-immune disease is going to be triggered by various factors. Obviously having a chemical load maybe one of those factors, again based on your gene type and your environment. So that being said, those are all the areas of confusion that we have with these chemical reactions. Now, the other key thing is, well, can't we just measure these chemicals in blood, and if they're high, then we remove them.

That would be a good theory, but it's not really how these things work. Some of these chemicals go right into tissues, then they cannot be measured. And then they still have immune impacts, so these get stuck into the lymphatic system and they cause immune dysregulation at very trace levels, that labs aren't sensitive to pick up on. So we can't just look at measuring these chemicals in the blood, and that's one factor.

As far as measuring immune tolerance, there really isn't a very good test to measure immune tolerance. Immune tolerance is a bunch of different immune cells that can dysfunction, whether it's like T-red cells or dendritic cells, and they can dysfunction at a local tissue level and not really represent a complete blood draw. However, sometimes you can see changes in things like regulatory T cells in blood draws.

And for most people that have lost their immune tolerance, their white blood cell tests and immune panels are going to be totally normal. They're not going to show some of these subtle dysregulation pathways. So usually with the blood test, all you're really measuring is quantity. How much of one immune cell is of the other, but not how well they're functioning. So when people lose their immune tolerance, they don't lose the quantity of their immune cells, they just don't function the way that they need to, and routine blood work does not measure that. So that's one of the frustrations, these are things that are measured in a clinical lab, scenario where they can, they can look at these cells individually with the microscope and do some analysis.

So those are the areas of frustration with it. Now I would say... So people say, "Well, what would you do?" This is the common question, again in my practice when I work with patients. My answer is always, "I would remove them. If I ever suffered from a chronic illness or had any issues, I would remove them." And second question, "Would you ever put them in?" "Absolutely not." But you have to understand, I'm extremely biased by working with chronic disease patients for many years, so it's like, "You don't want any other additional factors that can make someone sick."

For some people... I know some people do have some degree of healthy immune integrity, immune fitness, where they don't really have any health problems for it. Those people do exist. Just like with any kind of illness, in any kind of chemical exposure, there's people who smoke cigars until they're 100 and they still are okay. So there's obviously exceptions to this, but when you're at the point where you're ill, or at the point where you're chronically inflamed, you're at the point where you're sick, or you have those illnesses like autoimmune disease in your family history, you really don't want to play this game.

Now, the other thing I would also recommend is if someone that has Breast Illness Syndrome, to get involved support groups and figure this out, and have a community to help. It's a challenging issue, and for a lot of people, that really does make a big difference for them. Now, as far as immune tolerance goes, let me explain other things. If you have Breast Illness Syndrome, you can't just take a bunch of supplements to support your immune system and think that it's going to be enough.

So you can't, for example, just detox all the time and assume that the chemicals in the breast implants are not going to cause a problem. There really is only one option, if you really think that these chemicals in breast implants are causing some illness, and that's basically a removal. Now things you can do to improve your immune tolerance. We do have a course that I put together on our website, Dr. K News, DRK news.com. It's the oral tolerance program. And I give you a detailed explanation of ways and things you can do to improve your immune system tolerance, but I'm going to share some of the key concepts with you right now.

So one of them is, for example, you have to have a healthy microbiome. Your gut is going to have to be healthy. You want to have lots of gastrointestinal diversity. Very basic things like, making sure your vitamin D levels are up to normal, are really important. Making sure you have healthy amounts of antioxidants, are really critical to improving your immune tolerance. Making sure you don't have intestinal permeability or leaky gut is another factor, that's really important to make sure that your immune system is not overzealous.

So, those are the very basics of it. As far as supplements, people always expect supplements, nutritional supplements. When you look at immune tolerance, things like vitamin D, vitamin A are really important. Prebiotics can be very helpful. Short chain fatty acids like butyrate, can be very helpful. You think you have a leaky gut, things like

glutamine can be very helpful. Again, these are just some general recommendations of those things.

So anyways, I think we're going to get into questions here in a second, but those are the main things about toxic chemicals. Now I would also say, all these same principles that we're talking about with breast implants, pretty much translate to people that have mercury amalgam fillings. It's the same thing. If you have chemicals in your body that increases your chemical load, and amalgam fillings have known toxic substances in them, and then those toxic substances do play a role in increasing chemical load and potentially causing inflammation.

And then for some people that have, they don't notice any significant differences, and the key issue there was, "Why would you ever put a substance that's known as a toxic chemical into your body, long-term?" I think that's pretty much obvious for most people, that they would not do that. So now [inaudible 00:19:34] they have different ceramics and different composites that are much healthier, if you do need to do some dental work, or even with different types of hip replacement surgery, they're using much more safe, less toxic compounds.

All right. So let me go through some of these things here. So one of the questions I see here from Danielle, is you said, **"You lose your immune tolerance and immune system becomes hypervigilant, can you fully recover from this?"** Again, not everyone that has Breast Implants Syndrome or Illness is going to recover, and we don't know why. One of it is... I think the most common reason is some actually do develop autoimmune disease, and when they remove them... Sorry, I forgot to share.

Yeah. [inaudible 00:20:30]

So if you have developed an autoimmune disease, then even when you remove them, the autoimmune disease is still going to be there. So autoimmune diseases, for example, can be triggered... You could have the genes, and post the third trimester in pregnancy autoimmune disease can turn on, for example, most common one is Hashimoto's. And then once you give birth, you still have the autoimmune disease, it's not like you can go back and reverse that. There's a certain chemical load, where immune system dysfunction takes place and the genes turn on. That's the thing, these genes turn on.

Unfortunately, we don't really know how to turn them off with drugs, diet, nutrition, or lifestyle yet. All you can do is decrease the expression of them once they develop. So-

[inaudible 00:21:11]

... so those are the variables that are involved with how does a person respond if they're healthy or not healthy, and... It's Siri there

Quiet, Siri.

So those are the things to think about, but it shouldn't deter you from, for example removing them because you still want to decrease your environmental chemical load as much as possible. So, okay. There was a question there. I think I turned my mic up, next to my mouth here a little bit more. All right. Any other questions?

Oh yeah. Okay. Hi.

Hi.

All right. **Danielle- Once you lose oral tolerance and immune system becomes hypervigilant, can you ever recover from it?**

We just answered that.

I was getting the chair, I'm sorry. Oh boy. Okay. Well, good job.

Mandy, I got Hashimoto's after implants, also did heavy metal chelation with breast implants still in. I got much more sick, rashes, inflammation and brain issues increased. Middles pulled out of implants weren't systemic. Will you speak to this? I want doctors prescribing T [inaudible 00:22:27] to be informed.

Yes, actually you just brought up a good point. I need to do a talk on chelation and some of the research on chelation as well. Here's the interesting thing. The toxic compounds that are in breast implants, they're compounds that your body can clear through the liver. So let me explain something. There's two different types of chemicals for the most part. There's toxic pollutants and chemicals, which your body can clear through the liver. They call them bio transfers... Chemicals that can go through biotransformation.

And then there's chemicals your body cannot bio transform, they cannot get rid of them through the liver and renal pathways. Best examples of those are like heavy metals, things like lead, things like mercury, uranium, your liver just can't metabolize to get rid of them, and that's where chelation comes in. So chelation, isn't really there to remove any of these chemicals. You don't need chelation to remove any of the chemicals that are known toxins in breast implants.

Things like benzenes, things like acetones, things like epoxy resins, things like phenol compounds. Those your liver can metabolize, your microbiome and your liver can metabolize on its own, if it's healthy. So with exception of maybe a little bit of lead compounds in some breast implants, the rest of it your body can bio transform. So you're not going to get rid of these breast implant things through chelation.

There is unquestionably a large degree of physicians out there that are on this chelation monetary, and I don't know how to explain it and be direct any other way. You walk in, there's one thing that's guaranteed. You have any metal toxicity then we need chelation. It is a group that I totally I'm disgusted with. It's a group that needs to be called up on what they're doing. It's not everyone can handle chelation. People that are very sick, people that have blood-brain barrier impairments, people that have gut-barrier

impairments, people that have chronic autoimmune diseases, they can absolutely, for sure, get worse when they go through chelation therapy.

There are studies that show that chelating compounds like DMPS, EDTA, DMSA, redistribute chemicals to other tissues. So as someone who's done their PhD in concentrations in immunology and toxicology, I can tell you it is a real issue. And I think we'll do a talk on that at some point. So if you're telling me that you had Hashimoto's and then you had dental implants, which we probably would need some chelation to get rid of those, but are you healthy enough to handle chelation is another key thing.

So I think we'll have to do an individual talk with that, but it sounds like since you had an auto-immune disease, your tolerance is dysregulated, and then you really weren't immunologically fit enough to handle that extra chemical load, and you had a flare up. So that also happens all the time. So be very careful, and I would say if you're worried about the toxic chemical compounds in breast implants, almost all those chemical compounds do not need chelation to be metabolized. They just need a healthy microbiome, so lots of healthy bacteria diversity in the microbiome, healthy detox pathways. So you need lots of Inositol Cysteines, sulfur-amino acids.

You can even take things to up or regulate your liver enzymes like milk thistle, which is very popular, to really support those pathways. Okay?

Okay. Christine is asking, are dental implants also an issue?

Right. So dental implants are also an issue. They're just the same concept. You're exposing your body to a chemical. Now there's a difference between them. Dental implants have actually heavy metal toxic chemicals your body cannot metabolize normally, and this is where you may have to consider well dental removal by a trained biological dentist, that can use vacuums and dams to make sure you don't get exposed to a lot of vapors. You can make sure you're actually healthy and fit before you go through the process, and also trying to improve your immune tolerance.

Okay. Sandy is asking, what about MTHFR, how does that into Breast Illness Syndrome and detox?

MTHFR is a genetic uniqueness that about 25% of the US population, worldwide population have, in which they need more methyl donors for the most part. Just think of things like B12 and folic acid. They need more B12 and folic acid to allow their body to methylate, and methylate is just a term that means a carbon, one carbon group attaches to a chemical. And when that one carbon group attaches to the chemical, it changes the structure of the chemical. And this is really important for detoxification, because once the chemical gets methylated, it becomes water soluble, and then you can eliminate it through urine, feces and sweat.

So for some people, it's the most common genetic uniqueness. They call it Single-Nucleotide Polymorphism, that the Human Genome Project found. They really need higher amounts of B12 and folate than most people, and they're way above the RDA

guidelines with needing to be 12 and folate. And usually when this is not working, if they do a blood test, they can see something called homocysteine elevated, because homocysteine is an amino acid, that is totally dependent upon methylation pathways.

So when methylation pathways are not working, they would have a high homocysteine, and if they have high homocysteine, that also means that they don't have enough methylation support, not only to break down homocysteine, which is a normal amino acid in the body, it's also very inflammatory. They don't have enough methylation, probably to get rid of chemicals and toxins. So there are some of the many chemicals that are found in breast implants.

Many of those chemicals depend upon methylation for clearance. So if you have a high homocysteine, that means you don't have enough methyl donors. That also means you may not have enough methyl, B12 compounds to help support your liver's pathways to clear out some of these chemicals. So you definitely want to increase your folate and B12. Some people have to take what's called Tetra Hydro Folate, which is a supplement that bypasses that genetic uniqueness. And these are so popular now. You can find them at any health food store, but that is a mechanism that you brought up, so thank you.

Okay. Evelyn's asking or saying, I had breast implants for 15 years and was fine, then developed Hashimoto's. I had them removed. However, I still have antibodies. Should I not reimplant?

You should not reimplant. If you have an autoimmune disease, do not add your chemical load in. It's just not worth it. Do not. I'm just giving you my advice.

And, I think people are unclear about if I have them removed, will I still have antibodies?

Well, yeah.

Well, first of all, once you have Hashimoto's antibodies, your antibodies are going to fluctuate all throughout the day. It's not going to be directly related to breast implants. It'll be related to a whole host of factors. It could be related to anything that impacts your immune system as a whole, it's not specific for just breast implants. So they can fluctuate up and down based on how aggressive your B-cell responses with the auto-immunity, but to take someone who's got autoimmune disease, which means they've already lost tolerance and then include in a chemical load, that's going to tax their antioxidant system and their tolerance, is never a good idea.

Okay. Sorry. Someone's asking about root canals.

Root canals?

Yeah.

Well, any kind of dental work. Sometimes you have to clean up a root canal to get rid of a pathogen, an infection, a bacteria, to really regain your health. At some point, listen,

we all get exposed to chemicals, even if we don't have them in our body, and we have to have some degree of chemical immune tolerance to be able to stay healthy, and not develop chronic illnesses and especially autoimmune diseases.

Okay. Christina is saying, I've had implants that are 16 years old. I had been diagnosed with MCAS and CIRS. I had silver fillings removed in the late nineties and amalgams removed three years ago. Detox chelation and treatment for mold and metals has only made things worse.

Exactly.

My neuro symptoms have become chronic. What do you advise?

This is exactly the point. When you have chronic autoimmune diseases, let's say you have a mold illness, when you have an autoimmune disease and you get to the point where your immune system is totally dysregulating, so now you have mass cell activation syndrome, and you have a hypersensitive immune response, chelation can make you worse. And you have to have some degree of fitness, in order to help with chelation. The best strategy I can share with you is what I've always shared, is to try to improve your immune tolerance. Again, we have an immune tolerance program a doctor can use, you can check that out.

The key concepts are really diversify your gut, get things like vitamin D going, make sure you have your intestine repaired, make sure you have high amounts of antioxidants, reasonable ethyl levels, things like Inositol Cysteines help do that, but it doesn't cure or reverse it, so that's one of the key things. If you try to improve your immune tolerance and you are, "Well, there is still autoimmune disease, that didn't work." You're really thinking the wrong way. There's no known cure for an autoimmune disease.

And here's the thing, there's known cures of cancer. There's published cures of cancer, that have been documented in literature. There's really no known cures of autoimmune disease. It is absolutely classified as an incurable condition, and people sometimes confuse what's called remission, where they feel like they don't have an autoimmune disease and blood markers go down, as cure, but it's not really cure, because people that have remission, they tend to flare up by triggers, when they aren't monitored over a period of time.

So there's no known cure for autoimmune disease. The key thing with an autoimmune disease is once it develops, is to not let it express as much as it can. The greater the autoimmune diseases expresses, the more tissue inflammation destruction is going to take place. It has Rheumatoid Arthritis, it's going to mean more joint swelling and inflammation. If it's Hashimoto's, it's going to mean more thyroid gland destruction, so really depends on where the autoimmunity is.

But overall, depending where the autoimmune disease is, general inflammation is going to really cause someone to be unhealthy, and have lots of symptoms and promote other

diseases, like cardiovascular disease and neurodegenerative diseases, so autoimmune disease is a big deal. It's different, and if you have an autoimmune disease, you got to be very careful with chelation.

Okay. So someone's asking the relationship between this and neurological symptoms as well. [inaudible 00:33:42] speaker on. Between neurological symptoms?

Yeah, so with neurological symptoms, a few things. Some people that have any kind of chemical insult, whether it's the chemicals from breast implants or from other chemicals, they do develop neurological autoimmune diseases. And many neurological autoimmune diseases get undiagnosed, because they're not severe enough. So the most common cognitive or neurological autoimmune disease is multiple sclerosis. And for multiple sclerosis, you tend to have significant injury to areas of the brain and spinal cord, where you have scarring of the tissue, and you can measure the amount of scarring and lesions and then if you have enough of them, you can get diagnosed with multiple sclerosis.

Well, many, many people have neurological autoimmunity measured by antibodies to their brain, to proteins like myelin and other tissue proteins, but never developed full blown multiple sclerosis. They don't progress to that level. So they have these autoimmune reactions that are taking place which are known in the immunology literature as not autoimmune disease, but autoimmune reactivity. So that means they have blood work that shows their immune cells reacting to their own tissue, but it hasn't destroyed enough of their tissue where they get a disease.

So I think for a lot of people that have some of these significant neurological symptoms from Breast Illness Syndrome, they may have neurological autoimmune reactivity. Now that can be measured. The most common proteins to check, or antibodies for something called Myelin Basic Protein, and Myelin Oligodendrocyte Protein, MBP and MOG, Alchemical laboratories run it. So if those are elevated, that means that you have some neurological autoimmune reactivity, even if your [inaudible 00:35:27] are normal.

That can eventually progress to MS in some people, but for many people, it's just an ongoing neurological inflammatory reaction. For other people, the breast implants doesn't cause neurological autoimmune disease, it just causes inflammation, and then inflammation checks on the brain. And when the brains inflamed, it doesn't function well. Doesn't produce energy very well, so people have very poor brain endurance. So everything that involves brain function, like driving or reading causes them to be fatigued.

When there's brain inflammation, synaptic activity is impaired, which means neurons don't can fire into each other as fast as they normally do, so the brain kind of slows down. People notice a brain fog, or depression, brain fatigue from just inflammation.

That doesn't have to be neurological autoimmune disease, so that can happen with any kind of chemical load as well.

Okay. [Marvy 00:36:19] is saying, can you detox through using niacin and sauna, and nutrients like [inaudible 00:36:24] and Binders to detox... What's B.I.I? Breast Implant Illness?

Breast Implant Illness, B.I.I, sorry. I'll say it again. Can you detox through using niacin and sauna, and nutrients like [inaudible 00:36:42] and Binders to detox B.I.I, after you remove the implants?

Right. So here's your question. It depends who you're asking that question to. If you ask it to a toxicology scientists they're going to say, "Well, no. There's no research showing that," and that's true. Physiologically, in a naturopathic model, natural medicine model, the answer would be, "Absolutely. You want to sweat. You want to optimize your biotransformation pathways." So makes it different answers based on who you ask, and the research is right, and the person who practices naturopathic medicine is practicing basic philosophies of physiology, which is if you have a toxic load, you need to take compounds to support biotransformation, and you need to encourage things like sweating, and urination and bowel movements.

That's just normal toxicology of human beings. So I would say, it's always a good idea to do those kind of strategies, to really encourage sweating, to really encourage supporting your liver pathways with supplements. Inositol Cysteine is a very good one. Milk, this one is very good nice, and is going to really just cause more flushing it. I don't know if it's going to have a significant impact, necessarily on getting rid of chemicals, but it may make you feel like you are, because you're flushing a lot. They're all probably good ideas to consider, and they're not going to hurt you. If anything, you will probably feel really good doing it.

Okay. A lot of people are asking, what do you recommend after having them removed? Any kind of nutritional protocol you can think of, or that would be generalized, after you have breast implants removed.

Okay. So if you have breast implants removed, the key thing is basically, oh I just mentioned, really encourage your body's own natural detoxification pathways. So detoxification means you have several things take place. You got to take a chemical that is... So the chemicals, for example mercury... Some of the chemicals that are found in the breast implants, like acetone and benzene rings and different epoxy resins and so forth, they can be metabolized in the liver. So you want to make sure your liver has lots of flavonoids, and it goes through what's called The phase one- phase two pathway.

It's just basic things like having B vitamins, having things like Inositol Cysteines to raise [inaudible 00:39:00], taking things like milk thistle to support Phase one-phase two pathways. Just go to any health food store, they have like detox supplements, which has like a combination of all those ingredients in there. And they're just basic nutrients that support the liver pathways. Then you can also encourage having a healthy bowel movements, you have to have regular bowel movements to be able to eliminate toxic chemicals. So if you're constipated, then it's [inaudible 00:39:27]. Your gallbladder has to contract to get rid of compounds. Your liver has metabolized, good and healthy gallbladder and then sweating is always a good idea, so just the basics.

Okay. People are saying, "Please do a chelation talk."

Yeah. We are going to do a chelation talk.

Yeah, and what are your thoughts on blood type diet, for working on gut health? If you're trying to heal the gut, just speak on that.

For type diet, so it's definitely different. In the peer reviewed literature, in immunology literature, there's definitely different types of blood types, that make a person at risk for various infections and various diseases. We know that. With recent COVID-19, they're finding blood type Os may not react as severely as other blood types, but I think there's been a huge... The blood type diet, I think, is a huge jump. Some people make some changes in it, they feel better, but for the most part, it's still... I think the evidence is here, it's like, they jump way too far, too far with it.

And the argument to that is someone saying, "Well, I changed my diet for my blood type. My whole life changed, and I feel better." That's great. That does happen for some people. But I think, for me, personally, it was too big of a jump. So I'm not like... I don't think the blood type diet will be your most efficient way to fix your gut, just look at strategies to fix your gut directly, as a way. But a lot of times when you're just sick and chronic, trial and error is the only way to do things. And if you're excited by trying it and you want to give it a go, it's not going to hurt you. It may even help you.

Okay. [Yayal 00:41:17] is saying, any links to Fibromyalgia with breast implants?

Yeah. So, Fibromyalgia is linked with any kind of chemical load, it's not just breast implants, or Breast Implant Illness. Fibromyalgia basically, you have mitochondrial failure. The mitochondria... Your energy powerhouse cells in the mitochondria are found in muscles. They are found in the brain, they are found in tissues, and anything that uncouples mitochondria, which makes your powerhouse cells not make energy as efficiently, will lead to symptoms like Fibromyalgia, like chronic muscle pain, and knots and trigger points all over, and fatigue and malaise, and all those things that go along with Fibromyalgia.

So chemical toxicity symptoms match Fibromyalgia symptoms. As you know, it's a general diagnostic term that's thrown out all over the place, when people actually have underlying causes of their physiology being impaired.

Okay. Maria-what are your thoughts on replacing fat from another part of the body to fill in the breast after removal of implants?

I don't know.

Do you have thoughts on that?

I don't know about that. I don't. I can say, I don't know. It's better than the chemical implant.

Could it work?

I don't know. That might seem like a better option. If it's your own tissue being redistributed, I can't really comment because I don't know much about it. At least it's not a chemical exposure.

Right. A little off topic, can untreated thyroid disease cause psychosis?

Yes. Untreated thyroid disease absolutely can cause psychosis. It's going to get progressed and severe enough, but it does. Thyroid hormones are necessary for your synaptic transmission in the brain, and for just brain metabolism and brain function. So people could get all types of psychosis with long term thyroid disease, but it is actually still pretty rare. You have to have some severe thyroid deficiency for a long period of time, in combination with having some degree of susceptibility for psychosis.

I think the combination of the two are necessary. There's lots of people that are walking around with hypothyroidism for 10, 20 years never diagnose and don't have psychosis. So it's not just the thyroid hormone deficiency by itself, but clearly there is some links between that in the published immune literature.

Okay. [Frolin 00:43:51] They say titanium is fairly benign, but have you seen it triggering reactions and joint pain and swelling?

For me... Again, I'm not an expert in all the different surgical implants, and there isn't a lot of studies being done, I think titanium is one of the less benign ones, because the key things with the chemicals that are a problem, is if they break down, and if they get released in body tissues. So when you look at that, you're looking at the acidity and the pH of the body. Certain chemicals can get released into the tissues very, very quickly, over time, they can start to leak and break down, whereas titanium, it doesn't do that.

So I will say, for example, myself if I needed a hip replacement, I wouldn't be so concerned with the titanium replacement hip as an option, just because the titanium is so resistant to break down in the pH of the body. But titanium is never pure titanium. There's different metals that are part of the titanium mix, like there's a little bit of copper, there's a little bit of other metals that are involved with it. And for some people, those

other metals maybe a factor, but surgical grade titanium has very, very little amounts of any other chemical ingredients, but it also depends on how sensitive you are.

Okay. Very informative. Thank you. Can you do a session on hyper thyroid?

Hyper thyroid. Hyper thyroid is like 1%. Some of the topics I'm afraid we might have five people show up for the talk. So I'm trying to pick more really broad topics. We can certainly do one on thyroid and discuss hyper as part of it. But-

Didn't you do a thyroid talk?

I don't know. We're getting old.

I know. Can a surgery on a face cause an autoimmune disease?

So there have been links with autoimmune diseases being triggered after surgery or trauma. So whether it's traumatic brain injury, whether it's a car motor vehicle accident, whether it's various benign surgical procedure, it does increase the inflammatory physiological stress response. I tend to think, it's not going to cause it by itself, you have to have some susceptibility, or maybe you had an autoimmune disease that was there, but it wasn't expressed as much, but there are surely case reports and understandings that you can have trauma induced autoimmunity, including surgery.

Okay, Shane is asking, is psoriasis really an autoimmune condition? Is it an attack on one of the Krebs cycle intermediates, thus they use fumaric acid supplements in Europe? Psoriasis.

So psoriasis is an autoimmune disease, for the sake that there's an inflammatory reaction against the skin, represented with autoimmune disease with histological studies. They haven't identified the specific target protein that causes it. So that's why you can't like get a blood test and go, "You have psoriasis, you have this antibodies." That hasn't been established yet. There's lots of autoimmune diseases that exist, that they haven't found the target autoimmune protein, they can measure in blood for the diagnosis and psoriasis one of them.

So I'm not sure about the application that you're discussing. Or the assumption that that's the only mechanism that is accurate. So that's the best they can do to answer that.

Okay. Shawn, is there a primary problem with implants a foreign object in the body, regardless of the material, or sorry, sorry, or the toxicity of the material itself, for example, are implants made of 100%, ceramic for knee, hip dental, more acceptable?

Yeah, again, so the key thing is, there's certain materials or we find certain materials are less resistant to break down and breach into the body into the tissues. I think ceramic and titanium being the more popular items now, because they don't have any chemicals leach into the system. Breast implants, on the other hand, and then but if you look at

ceramic, and titanium, they're extremely dense, they're extremely hard. And they're extremely resistant to break down from just, pH of bodily tissues and from the immune system. Like, you can have white blood cells join titanium all day, it's not going to break down. Whereas you look at breast implants, they're plastic, they're soft, and the chemical composition of the implants have chemicals in them, that can easily break down into bodily systems. So it's not just that something is put into the body, it's that something is put in the body that has the ability to then have chemicals leach into bodily tissues. That's one of the key factors.

Okay. [Asa ASY 00:49:09] Do Botox injections affect our immune system or brain function?

Yes. There was actually one study, so I can say extensively, it's one well proven. There was one study that did show that Botox turns on Hashimoto's.

Really.

Yeah. The toxin in Botox, it looked at it and they saw photos of Hashimoto's right after injection. And they actually did an amino acid sequence of the Hashimoto's toxin that's using Botox, they found that it had amino acid similarity with TPO. And they concluded that there may be some molecular mimicry mechanisms that are involved with it. So that's the only one with Botox and autoimmune disease so far published, it was a very small study, but it was well done. And they did do the amino acid sequence breakdown to kind of show that the possibilities there, so...

How did you know that? Sorry. Okay. Linda's asked me. Is Parkinson's an autoimmune disease?

Okay, so Parkinson's disease is considered an alpha synuclein apathy, which means that there's a buildup of protein alpha synuclein. And that gets in the way of healthy neurons and leads to the neurons that are getting input to slowly degenerate just like your muscle isn't contracting with slowly generate. So this alpha synuclein protein builds up, and gets in the way of health neuron and they starts to generate. And It happens in the olfactory bulb first, then in the gut, then eventually goes into the basal ganglia, then we'll open pathways and people start to get tremors and rigidity and stiffness.

There is some research that shows that auto Parkinson's disease and even dementia Alzheimer's may have an autoimmune component to it. So it is not just that this, they call it protein aggregate or these proteins will have it's not just a protein aggregate by itself. And they have been using a biomarker called alpha synuclein antibodies to measure this. And we published a paper in a... What's the journal? Is Journal of Toxins, where we looked at patients that have Parkinson's disease and measure their Bisphenol A antibodies and compare them to alpha synuclein antibodies to see if plastics may have a role in this neurological model of Parkinson's, autoimmune disease. We found that there was significant risk, sometimes four to five fold increased risk, or if you start to

react against plastic bottles because you lose your tolerance, then you may also start to have the biomarker for autoimmune reactivity in Parkinson's. And so I believe there's an autoimmune component to Parkinson's disease, but for the most part, it's still considered a protein aggregation disorder where proteins stick together and what to call alpha synuclein and lewy bodies.

Okay, and Christina is making a comment. They use Botox for migraines every 12 weeks. People are injecting Botox for migraines, yeah.

Does work. But you know, this is the key concept. You don't have migraines, because you have Botox deficiency. You've migraines, because there's something wrong with your health and your physiology. You got to figure what that is. So that's why you would need to either figure out yourself or work with a good functional medicine practitioner, to really get down to the root cause, or someone who's really good at lifestyle, diet, nutrition management, to really figure out what the key is, because it's just, you're having some kind of autonomic dysfunction vascular dynamics that are impaired. It could be hormonal, it could be immune-based. But you don't want to keep giving yourself a toxin.

Okay. And Can someone develop an autoimmune disease, even if they are not genetically predisposed?

Well, when you say genetically predisposed, it's pretty clear that there's a genetic predisposition there. However, it's not one gene, it seems to be a cluster of genes. So that's one of the other key factors, they're not finding, for example, only one gene will determine if you have Hashimoto's, they're finding is that there's a cluster of genes that are involved. So however, the way they look at these as they do what are called twin studies, where they look to see the rates of developing autoimmune disease between twins that are in different environments, and there is a strong genetic potential there. So the current theory is there is genetic susceptibility as a key factor in developing autoimmune disease. The problem is we don't know what all the genes are for each of the autoimmune diseases, and not everyone's getting all the genes tested. So I think it's gonna take a period of time to really confirm that, but at this point, everyone is in agreement that there's a genetic uniqueness involved.

And there's different types of gene uniquenesses for the same disease. So not everyone has Hashimoto's to the same dysfunctional genes. So that's how complex the investigation is for.

Yeah. Okay. Jesse's asking, Is it okay to take quercetin daily until you get to the root cause of it? I guess is scalp itching? And Edwin and Sarah are asking this as well.

Yes. If you have, like quercetin is such a very powerful, natural anti-histamine supplement. And if you have chronic histamine reactions, whether for you it's got your scalp itching. Yeah, you can use it all the time. Of course, quercetin is natural flavor, you can take it every day, preventively, it's great. It's just like, hesperidin found in

orange like an orange peels, lemon peels. It'd be a good idea to take everyday just for your own health. This is helping you great.

Do you know what HPU is?

No.

Okay, someone's asking about HPU. They didn't try to spell it out. I don't know. We're sorry that was initials.

Yeah, I'm sorry. I don't know any initials, Barry, I know a few. IBS, Irritable bowel syndrome.

All right, okay. And Sean's asking if you to talk on Low T3 syndrome?

Sure. We should do a talk just on general thyroid imbalances. And maybe we talk about hyper in T3 and all that as well.

Yeah.

Sure.

Okay. I'm sorry. So someone is very kindly saying that your eyes light up when I walk in the room.

That's true. That's so nice.

Wow, that's so nice thank you. I'm going to go back and look.

By the way I thank everyone for joining us and asking questions. For me, it feels like I have a lot information to share. It's nice to have people that actually want to listen to it. Just sometimes staring at the ceiling alone, not feeling making any impact in the world. So it's nice to be able to do these.

That's nice.

Okay.

Okay, off topic. But what's the number one thing you suggest for someone with MS. Sorry, DHA is Gluten-Free Diet and [inaudible 00:56:12]?

Like number one thing for multiple sclerosis?

Yeah.

So as you know, there's different types of multiple sclerosis. There's this progressive types of relapsing remitting types, and there's different variations between those as well.

So there's generally like one thing, but I would say, you can easily start with them in the most common thing to start with is just vitamin D, lots of research on vitamin D, that may have an impact. And there's increased risk for people that are vitamin deficient, for many autoimmune disease, including MS. So vitamin D would be something to consider as just like a general baseline for not knowing anything about the patient, has the disease, which is, not the most accurate way.

And then I would strongly, strongly suggest being gluten and dairy free right away, unrelated to celiac disease. And gluten and dairy, extremely inflammatory proteins in general, whether a person has sensitivity to it or not, I would definitely do a gluten dairy-free removal. And for some people that do have some of these genetic celiac genes, it can be a huge impact. There's a paper that we published in the scientific journal called Nutrients, I think it was in 2014 or 2016, where we took 400 healthy blood donor samples, and we measure them against the autoimmune target protein of MS, which is myelin basic protein. And myelin [inaudible 00:57:37] and we checked other neurological antibody proteins, get 65 neurofilament. And we measured these 400 healthy blood donors with antibodies to milk proteins and wheat proteins.

And what we found was that there was a significant correlation association with those that had neurological antibodies and to milk and wheat sensitivity. And it was much more than the less than 1%, less than 3% celiac sensitivity. So it's a gluten dairy free diet, vitamin D is the obvious no brainer place to just start with right away.

Now personally is lifestyle. My lesson approach is really what you need for any chronic autoimmune or inflammatory condition.

Okay.

And it's usually like a functional medicine practitioner, so does diet and lifestyle can help you navigate through some of that.

Okay, so someone's asking about if you can just talk about migraines.

Sure.

And then they have a question about migraines.

Okay.

I noticed that taurine helps a lot, what can be happening with my brain? Can I be deficient for something if taurine help me?

For most people migraines, the only single nutrients has been seen directly associated with having statistically significant impact and migraines and studies has been magnesium. So if you're gonna try one supplement before any other, I would try magnesium. And with magnesium, the other key thing is you got to make sure you're taking enough magnesium for what your body's needs are. Sometimes just taking 100 milligrams of magnesium is not going to be enough. So for example, you have

migraines and you take magnesium and go, "Well I took it for three days or I took it for a week didn't do anything," or magnesium [inaudible 00:59:15] or my multi supplements can't be, that that's not the way to think.

So you really need to do what's called a magnesium load to determine how much magnesium your body needs, and the way to do that is to start with... So just let's say buy a magnesium supplement. And then start with one capsule in each day increase the capsule dosage until you notice let's say anytime during the day, or at nighttime, after you know after you eat or something, like let's say you have three capsules one day, and the next day you have four.

At some point you going to get enough magnesium where you'll have a watery bowel movement. So your first bowel movement will be watery, you're not going to have let's say it runs all day but you have a watery bowel movement. And that means you reach your magnesium saturation. So then you back off. So four capsules from wherever you're using cost that then go to three. Then stay on that dose for a couple weeks. See if that helps with your migraines. That's as far as single nutrients go. That's the main one.

Now taurine is one of the sulfur amino acids that's involved. It's part of an intermediate in their urea cycle. But you just tell me that you take taurine that's helping you with it, doesn't pop up any key specific pathway. So I can't help you with taurine question as well. Okay. Well, next question?

Sure.

Or are we good?

No, There's a couple. But here's.... [inaudible 01:00:44] is grateful for your talk. He says you're really kind?

Oh, thank you.

Okay. Chris is asking, and talk about where the protein aggregation in Parkinson's comes from? And are there enzymes we can activate to reduce the aggravation?

No. The only thing you can do to reduce the aggravation of protein aggregates is to turn on a gene expression called mTOR pathways. And mTOR pathways have only been found to be expressed aggressive enough to change the buildups by fasting. And there're some talks on fasting.

So fasting turns on mTOR pathways that then helps what's called [inaudible 01:01:17] which is the pathway to clear out these proteins. And also there's no dietary supplement that's been shown to do that. So it's really just fasting so far, that seems to have the biggest impact on getting rid of some of these protein aggregation pathways.

Okay last one. Keith, does NAC have advantages over using system? Why use NAC which is as far as I know is not natural. Also cysteine is much cheaper than NAC.

You can absolutely, use N-acetylcysteine. The N-acetylcysteine is a two-carbon group. So some people like to have the additional two carbons, in addition with the cysteine. Most of the studies have been on glutathione, to raise levels. Have been done with N-acetylcysteine and now with cysteine. So N-acetylcysteine is more stable. So I would still prefer N-acetylcysteine, I think you get better absorption and is much more stable than cysteine. You're still gonna get benefits by using just cysteine by itself. But I know the value versus benefit ratio is whether one is better than the other.

I tend to be more on the N-acetylcysteine side just because most of the research done on cysteine [inaudible 01:02:35] find. Most of the research have been done with N-acetylcysteine. And that cysteine because of its stability, and its absorption factors. Anyways thank you all.

Thank you [inaudible 01:02:46].

Thank you so much. And appreciate everyone joining us and hopefully you found something here that was useful and please share and please follow us on our Facebook page. And please check out our website, Dr. K News, Drknews.com. And thank you for spending the afternoon with me. Bye.