Introduction and Dr. Jonesu2019 Background

Welcome to this episode of the PCOS SOS Summit. I'm your host, Dr. Felice Gersh. With me today is a wonderful naturopathic physician who is an expert in all things women's health and hormone.

So you know how dear to my heart that is. Dr. Carrie Jones. Welcome, Carrie. Before we begin, I would love to have you tell our audience a little bit about yourself, how you got interested in women's health and hormones, what you're up to now.

And then we'll do a deep dove into the topic that we've pre discussed a little bit about estrogen and its metabolites and metabolism and all things related to estrogen and how you get rid of it when you don't want it anymore.

Oh, my goodness. Well, thank you so much for having me. As I said earlier, it's such an honor to be here and to be part of the PCOS SOS Summit and just to be able to talk to you.

I just love learning from you. So this is and I even have for those who are watching the video, one of the. Trying to show my finger is her PCOS SOS book on my bookshelf.

So I started this journey a long time ago. I was raised in this in the south, essentially, and I in Kentucky and our sort of sex said health class was taught by the football coach.

So you can imagine how that went. And I got really just into health and health optimization, but I didn't know what that was or what that looked like.

I moved out to the West Coast, to Portland, Oregon, found naturopathic medicine, and then found a wonderful mentor who taught me a lot about hormones women's health, HRT, cycling, fertility.

And I realized a lot of my colleagues, friends, family didn't know the things I was learning. You know, I'm sure when you are with your patients and you're explaining something and they're a full grown adult and they'll go, Dr. Gersh, I never knew like nobody taught me that about my body.

And I just kept getting that over and over. So I decided to stay in hormones because it just became my passion to help women understand what's happening with their body.

I feel like we just been taught these things at a much younger age. We could probably avoid a lot of the issues that we struggle against because we would know what it was.

We might know what to do. We would at least know a few things to try because we had been taught it from a young age. And that's why I'm so just honestly excited to be here, just to continue to help, especially PCOS being the number one endocrine disorder in women.

And I was just reading a statistic yesterday that something like 75% of women with PCOS just don't get diagnosed. They get brushed off, blown off, handed the pill and it takes them a long time to get that diagnosis.

And I thought, that's so not fair. And, and so that's what I continue to help do with you, is educate well. Yes, we are two peas in a pod. We figured that out a long time ago.

And absolutely. And the sad thing is, after all that time and effort spent trying to get a diagnosis, once they get it, where's the treatment? Like you said, it hasn't changed in like 30 years.

And it's really not getting to what I found so appealing. I mean, it's so innately just attractive about naturopathic

medicine, which is dealing with root causes and helping the body to heal itself.

And one of the things that doesn't really get discussed, I think, anywhere near enough is the role of estrogen in its relationship to women with PCOS.

Most people just think of it in terms of androgen, excess testosterone in particular, and it's all about testosterone, testosterone, testosterone. And it's really, of course, also enormously about estrogen.

And I've talked about this before, that the ovary of women with PCOS with when you're talking about the most common form of PCOS and as a syndrome, of course, it's not really just one thing.

It's a compilation of a variety of causation and it manifests in similar symptomatology. You know, that's why it's called a syndrome. But when you talk about the majority of women who deal with PCOS, they have a problem that's going on in their ovaries in the production of the estrogen that's made by the ovaries estradiol.

But all good things come to an end and you know, they have a problem making it, but maybe they also have a problem in getting rid of it. So, you know that you don't have you out there don't have the same estrogen in your body now that you had ten years ago.

You know, it's like like you don't have every cell yet. You had the day you were born. You know, things come and go in your body. And we have mechanism for elimination.

And I call it like bio transformation metabolism of our own body products, whether they're neurotransmitters or hormones, because we need to get rid of the old and we need to make new.

And so, Carrie, I would love for you to talk about some of the foundational basics of what estrogen even is and why is it that we can't keep the same estrogen for 40 straight years.

Until we have to make. New estrogen? What's wrong with the old estrogen and what do we do when it really does get to the point where we need to get rid of it?

How does the body get rid of old estrogen? Oh, my gosh. Such a good question. I love that you said that. Why don't we have the same estrogen for our entire life?

Estrogen Basics and How the Body Clears It

Thank goodness we didn't. We don't. That poor hormone hormones floating around would really be burned out and exhausted by the time it gets to menopause.

But much like you, you know, estradiol gets a bad rap and you always talk about how we shouldn't vilify estradiol or any of the estrogens and we need estrogens.

They're important for our heart and our in our brain and our bones and our skin and and in our mood and all these things. But poor estrogen, poor estradiol, everyone's like, Oh, no, no, I want to get rid of it.

What's the fastest way I can clear? Can I do a juice cleanse? Can I do a five day cleanse? And I understand when it's creating, you know, PMS and mood changes, tender breasts or, you know, your breasts get bigger fibroids or polyps or heavy periods.

And and even with PCOS, just like you said, PCOS is very classically defined by androgens. We both know and people listening. There are a lot of PCOS who also have a lot of estrogen floating around and even in the body we can make estrogen in our adipose tissue, in our fat tissue.

So all those androgens floating around, testosterone, etc., can go through a little process called aromatase zation. There's a little enzyme that does that and especially loves to do it in our fat tissue.

And so if you're listening and you're struggling, weight is something you're struggling with. It's also possible that weight is increasing your estrogen.

So once you make estrogen and you use estrogen, you're estradiol, you do have to get rid of it, just as you said. Everything everything has to go like that.

It did its job. It did its life. And we'll give it an award. We'll give it a certificate, let it retire out with Rolex and properly move it through the rest of the body.

And it's very kind similar to taking out the trash. And so it's or the way that I often will describe it as well as like water coming through a bathtub.

It's a multistep process and the body is very intelligent and how it happens. But there's also a lot of things that can get in the way and trip you up or kink you up getting that estrogen out.

So when estrogen comes through, the majority of your bio transformation or detoxification does happen in the liver. Other cells can do it all over. The liver is truly your big factory for getting all that out.

And you generally go through what we call phase one. Phase two, it's a two step process there in the liver. So it's kind of similar to like water coming into your bathtub and then water going through your drain.

And then phase three is where we truly eliminate it out of the body. So we either urinate it out, so out through the toilet into your sewer system or the drain connected your sewer system.

So maybe out through your GI intestinal tract and you poop it out. And so if either of those systems, the liver system, the GI tract, the kidneys aren't doing that well if they're slow and sluggish, if they have some sort of infection, if they're missing nutrients, if they're overwhelmed, too, there's there's too much water in your bathtub.

What's going to happen? It's it's going to overflow. If it's clogged, you struggle with constipation. What's going to happen? It overflows and you feel terrible.

So when it comes to estrogen, we want to make sure that when you make it, you make it appropriately out of your ovaries. And then when it's done its job, we move it to deliver in a healthy way.

We move through the kidneys, we move it through the intestines. And as I said, I'm sure we can get into there's a number of things that can trip that up and can sure get in the way, causing us women to have this like excess estrogen that we don't want or need resulting in all those symptoms that we're not happy with.

And so by improving liver health, improving kidney health, improving intestinal health. Boy, we can really make an impact on the way our hormones circulate in our body.

Well, absolutely. All good things come to an end and we have to eliminate them. And when we think about women with PCOS, so like you mentioned, adipose tissue, also known as fat tissue has this enzyme aromatase.

Now when women have a lot of inflammation, which women with PCOS have it actually upregulates that enzyme. So they even have more production of extra bone.

And I would like you to touch on that. The predominant estrogen that's made from the adrenal precursor is the androgens from the adrenal gland turns out to be as strong, which has different action in the body.

It's a different type of estrogen. So maybe you could touch on like what are the different estrogens, the different types, you know, the one you do three?

And why does it matter if you have a difference in the quantity of one estrogen over another? And how does that change anything, you know, in terms of the effects in the body of having, say, properly produced estradiol from the

ovary versus an overproduction due to inflammation and fat transformation of the androgens into other forms of estrogen and fat tissue.

Why does that even matter? Is estrogen just not estrogen? Oh, and we wish it was that simple. So we have three main kinds of estrogen that we talk about a lot, sort of at a superficial level, and thankfully they're named accordingly.

E One, which is estrogen, E2, which is estradiol, which is the one we've been talking about, and then E three, which is estriol. And they do different things in the body.

They have different potency. These, let's say they have different ways that they bind to an estrogen receptor with a few different kinds of estrogen receptors.

Summer may be a little more aggressive, let's say. Some are a little more protective. Some are more concentrated, like maybe in the breast tissue or in the brain as opposed to in the vegetal area.

And so by understanding that this that it's not a free for all in our body. So if you are making a lot of that estradiol now estradiol kind of sits in the middle of a pathway.

Estradiol can become as strong and then it can also become estriol, but as strong. That e one that you just mentioned. And if that's true, it's it's like it can be like a holding pattern, like, like a reservoir to convert into that e too.

So if you are just making bucketloads of that E one that is thrown in your adipose tissue, all that testosterone is converting into a strong gas. What you can then magically change it right into that potent e two, resulting in a lot of that excess estrogenic type symptoms.

Now it can continue down the pathway. It can go on to make what we call e three that estriol, which is not nearly as concerning, but that estradiol having all sorts of that precursor hormone estrogen really is where we can get into trouble.

Now, we don't talk a lot about it. Estrogen, will you do? But a lot of the world doesn't. They focus really heavily in estradiol whereas estrogen we tend to think of more in that in the menopausal timeframe astronaut it takes a bigger picture.

You make a little more of it because of that conversion and fat tissue. And we forget we forget about it being able to produce. When you have a lot of aromatase, so you have a lot of inflammation or even high insulin, right?

Hyperinsulinemia will also encourage that estrogen production as well, which can then go right on to make that super potent estradiol. And by forgetting that little that little nuance or blowing it off is like, oh, no, estrogen is only important when you're in menopause.

Like, Oh, my goodness, no, it's not.

Estrogen Types, Aromatase, and PCOS

All the estrogens are very active our entire life from puberty all the way, all the way through the decades. And by understanding this, it can really help with symptoms, long term risks, how you detoxify, etc..

So I'm so glad you brought that up. Yeah. And one of the ways I help people to try to think of it is like in men, if you have an older man who has like a big belly, you know, and then he has all the androgens that come predominantly from his testicles.

But when you have all that inflammation in an older man and he has all that abdominal fat, he can convert as well through the enzyme aromatase and make that estrogen as well.

And then he gets like man boobs, you know, and he becomes like his personality is altered. So, you know, the same mechanism can occur in men and women.

So inflammation is the enemy in that regard. It, you know, promotes the conversion and the insulin resistance and all of that. But now you have a problem.

You have women with PCOS who have imbalanced hormones in a whole variety of ways and they have issues with their liver. So like we can think about like some of the issues I think about with the gut and the liver is just biotic gut microbiome and abnormal microbial population and nonalcoholic fatty liver disease.

So how do these problems intersect with the body's ability and need to eliminate, you know, like metabolize and detoxify the old estrogens and get rid of them and and then like maybe you can go into a little bit more detail of what exactly is going on in the liver with these different phases and what are the metabolites and what do they do right.

You know, I, I don't I'm sure you've read this. The National Institutes for Health says that something like 24% of American adults have that nonalcoholic fatty liver disease.

That's one in four adults 18 years and older has nonalcoholic fatty liver disease. And when I think of the liver, I tend to think of like like a metropolitan city so full of there's there's highways.

Usually there's a belt. There's neighborhoods full of streets, there's on ramps, there's off ramps. And when you hit traffic, when you hit rush hour, everything slows down.

When you hit a snowstorm, the snowstorm has come to the metropolis. Everything slows down. So now let's just let's take our analogy and lay it in your body.

So you've nonalcoholic fatty liver disease, you're consuming a lot of alcohol, and you are around a lot of chemicals, parabens, phthalates, fragrance.

It's, you know, dyes, medications. And and I'm not saying you don't need the medications. I'm just saying they have to go somewhere. So they've got to go through your liver, which means they're going through your metropolis.

And so there can slow down that metropolis. And now poor little estrogen is trying to come through. It's trying to come down to the super highway there and it's trying to get across so it can continue on into detoxification.

And what happens? It can't get stuck. And now it goes back into circulation in the body. And so by when you when you have PCOS and you have a lot of this inflammation, it absolutely can include inflammation in the liver.

And just like a snowstorm, it's going to slow or eat, let's say a fire inflammation or fires. Right. So if you have a fire in your office, it's going to slow everything down.

Not only that, but it will use up or deplete the nutrients you need to make your liver work. So just like in your city or metropolis, you have to have police officers and fire and EMT.

You need hospitals, you need banks, you need post offices, grocery stores. You need you need all these things to help the metropolis work. You need the same in your liver.

You need B vitamins, you need choline, you need taurine, you need glycine, you need all of these vitamins and nutrients to help propel things forward, get them from point A to point B to point C and these chemicals, these these fires, this inflammation, the medications, the alcohol, unfortunately, or when we know women with PCOS, there's some like 30 plus maybe more genetic snips they're studying in relation to PCOS.

And so if you have some sort of snip that just means you're not going to absorb or use a new, let's say, B-12 or folate. You know, like the average bear, we get into real problems.

And so when you when you have fire in your city and you have a lot of clog in your city, and you're missing the key parts to help your city work, just like in your liver, it's going to cause a lot of symptoms.

It's going to cause a lot of problems. It potentially could cause a lot of heartache as you're trying to work through. So the livers the same way. One of the things that when you when you say that with gut dysbiosis, you know, the gut being an exit, a major exit point for estrogen.

When you have gut dysbiosis, whether you have picked up a bug, you know, worms or some sort of bacteria or, you know, you've traveled your soil, your pet, you know, there's a lot of ways you can have it, whether it's from stress.

Stress affects how our microbiome does and doesn't work. Medications. Think of antibiotics, you know, and the effect of the microbiome. Even think of your mouth health.

You know, we forget that the mouth is the start of our GI tract. And so have you been to a dentist in a while? You have gum, inflammation. Every time you swallow, you're swallowing all that bacteria down there.

And so it's just adding more fire to the way that you had your exit plan for estrogen. And so when estrogen can't get out even through the gut, then it just goes back into circulation.

A dysfunctional microbiome, unfortunately, does not work in favor of estrogen. It works against it, actually. It doesn't even work in favor of testosterone.

You can reabsorb your testosterone as well. So with PCOS, you think you're getting rid of testosterone through your microbiome or GI tract and everything's a hot mess down there and instead you just reabsorb it right back into the into circulation, into your body.

And so by understanding is, you know, as we're talking, this is your you know, I'm so excited as you're going through this this summit, you know, people will be able to piece this together and be like, oh, my gosh, that's me.

That's me. Those are the symptoms I have. That's that's what I think that's that's what's been going on. I understand this now so that then they can do something, be proactive, be empowered.

Absolutely. That's what we all want to do and power everyone so that they get some appropriate steps to lower their risk and get better. And one of the things that you mentioned, a couple of things.

One was you mentioned endocrine disruptors. You know, you mentioned phthalates is quite a bit of published data on this phenols and they're like particularly BPA on this panel.

A and its effect in women with PCOS and that they seem to have higher body toxic loads of this endocrine disruptor for estrogen as well as testosterone.

It's a multi hormone endocrine disruptor. So women who carry like excess load of these endocrine disruptors, does it do they also go down the same pathways in the liver?

Is this causing more problems in your metropolis and more traffic jams? You know, having everything compete for the same highways and the same pathways out?

It's similar pathways. It's not the exact same pathways as far as we know, but is in the same neighborhood. So if everyone's trying to go down side streets because the main streets blocked, it's going to be the exact same thing in your own neighborhood when you're trying to cut around traffic and cut through little side streets.

And it still requires the same nutrients and vitamins to process to convert that chemical like that. BPA is an example all the way through. So for example, let's say it requires, as I mentioned, like B12, folate, choline, taurine like all these nutrients.

And if the liver is prioritizing all the BPA because you have an excessive burden, then it's going to be a squeaky wheel gets gets the grease. And so it's going to be like here you take the nutrients and you get processed, which on the one hand is good, but on the other hand, estrogens over there like, hello, what about me?

You just took all the tires off my car and gave it to BPA to be processed and now I can't get anywhere. And so it sort of feels that way in the body. It can be a real struggle to get everybody through at the same time.

And so the bigger priority wins. And it's often, you know, endocrine disrupting chemicals.

Liver Detoxification, Fatty Liver, and Endocrine Disruptors

And as I remind people, and I'm sure everyone listening knows, you know, with PCOS, we're talking it's a systemic syndrome, but predominantly affecting the endocrine system.

So we don't want endocrine disrupting chemicals, disrupting our system that's already disrupted. And so by doing what you can to minimize endocrine disrupting chemicals, you're only going to help yourself, you know, tenfold.

And you also made a comment about medications. Well, a very high percentage of women with PCOS are put on oral contraceptives. You know, the birth control pills and I know we know, but most people don't know.

My patients typically don't know that birth control pills are depleted, is of vital nutrients in the body. And actually there's warnings on birth control pills don't use if you has active liver disease, you know so you need that liver functioning properly.

So I'm just wondering, for all those people out there, I'm not a lover of birth control pills. I do see the pros, I see the cons, you know, but this isn't a big discussion on that topic.

But we know that a lot of the women are on them. So for those women, maybe you could just have a few words about the fact that they do have problems with nutrients and what they can do.

And, you know, just some suggestions for women, so many of them are on birth control pills. And now you talked about you need those vital nutrients to get this stuff out.

So what nutrients specifically would you suggest for women who are taking oral contraceptives? I'll be honest. Sometimes it feels like an entire multi vitamin.

I mean, I just when you read the list, it's like all of the B vitamins, all of your minerals, you know, so it'll be, you know, calcium, magnesium, potassium, it's a number of taurine, choline glycine.

And so when you when you read these the studies that say or the pull out, the White package insert for the birth control pill, I mean, they know this information.

I've actually asked pharmacy friends and my pharmacist friends of mine, why don't you recommend it? A multivitamin or a b-complex for women on the birth control pill?

And, you know, they're like, well, in some cases they did. You know, in some cases they were like, well, we try or we we. But in a lot of cases, they're like, it's not standard practice.

We dole out the pill and and wish them the best and we're super busy and backed up. And it's hard because then they're going to say, well, what, what multivitamin should I take and where should I go?

What's the better one than fat man? I wish birth control pill. You know if you're like they need to add like extra in you know which birth control pills pharmaceutical companies if you're listening you need to add in an entire multivitamin into your pill back because it almost is what it feels like.

And we are you and I are talking about the liver. But, you know, like I said, most of your B vitamins are depleted by the birth control pill. And your B vitamins don't just work in the liver.

Right. They work on so many things. Everything from how you make hormones, neurotransmitters in your brain skin, hair growth, your heart bones, I mean, immune system.

And they're just involved in so many. We're focused on the liver. But I think sometimes we it gets forgotten the importance that these nutrients are. And sadly, I hear it on social media of, well, your liver was designed perfect, so, you know, it's meant to filter.

I said, What is it? But unfortunately, in this day and age it's put against. So I mean, the filter is clogged. It's like an H vac system that hasn't had a filter change in a long time.

Even the air filter in my own home blinks red when it's, you know, ready to be changed. My home air filter is a great quality one, but it can't go forever.

I have to still help it out. And it's the same with your liver. If your again, chemicals, alcohol, medications, not eating foods for nutrients not absorbing those nutrients in you're probably going to struggle with getting this stuff all the way through the exit plan.

Well, I am so glad that you said exactly what's in my mind, which is just about everything is depleted. When you look at the list, it's like every mineral and every vitamin and B vitamins like what do they not do?

They're involved in every single pathway. So everyone out there who's taking birth control pills, I know many of you are. Please make sure that you, you know, just get those nutrients in through food and through supplementation because you need them in order to do every function in your body, not just detoxification, which is critical because it's involved in getting rid of all your old junk, including, of course, your old estrogen.

And, you know, so one of the things I would love for you to talk about a little bit more, you touched on it a little bit, and that is the gut microbiome and its relationship to estrogen and the role that it plays in helping with detoxification, because that's definitely not something that most people know about.

It's not. And thankfully, it's gaining so much press in the research. And then of course, we're helping to bring it to light. So years ago, they discovered a part of the microbiome, which of course are good, you know, our bugs that live in our intestines that deal specifically with estrogen.

Now, actually, they deal with all the hormones, but they figured out the estrogen part first. And because it's microbiome, they said, oh, it's the estrogen microbiome.

And that's too big of a word, apparently. So they squished it together and they called it the Astro problem. So it's the estrogen microbiome. And what it does is when you are done with estrogens, it's just to make it easy to understand when you go through the process of detoxification, you get packaged up like a box with a bow on it and you get flushed into the microbiome because that box with estrogen inside of it is quite literally supposed to be pooped out.

If you have a dysfunctional estrogen microbiome, a dysfunctional estrogen loan from an imbalance in your microbiome, dysbiosis, inflammation, etc., then what can happen is this particular enzyme is known as beta.

It is. I don't know who names these things, but that's what it's called baited loop. You're on it and it acts like scissors and it will cut off the bow and open the lid and estrogen can then fly free.

So estrogen in the box is trapped. It can't do anything. It can't call 911 binds receptor. It can't cause problems because it's going to get flushed out once you cut the bow off and open the lid.

Now it's out and about and it's fair game. It can wreak havoc in the body. It can be excessive. It can bind to

receptors and activate them. So by improving your estrogen microbiome, we can improve the way your estrogen is gets rid of in the body.

Now, recently it was either 2021 or 2022. A study came out where they proposed actually calling at the end doe below the ask the endocrine and microbiome because they realized shocker all of our hormones all of our steroid hormones are varying hormones go through the intestinal track.

And so they thought, you know what, there's this in this, the endocrine microbiome is even processing things like testosterone. And so if you have enzymes that are acting like scissors and opening the box and letting testosterone fly free, now you have that androgen excess again, that hyperandrogenism with PCOS, or even if you were kind of on the border, weren't sure, you can really sure make things worse.

And so by just even starting, in fact, I'm much like you. I'm sure you're I'm real. This just research from 2020 to 2023 who researchers finally are getting it and they're like, lo and behold, a lot of PCOS issues are starting in the guts.

And if we address the gut, that's probably going to take the pressure off a lot of the symptoms of the syndrome. I'm like, Yes, that's because that's where a lot of fires can happen, a lot of of the inflammation.

And that's where we do or don't absorb nutrients. And how we do should get endocrine hormones and drinking chemicals out of the body. So, yes, let's focus on the gut. Absolutely.

I remember when the first article came out, it was out of China in 2015. It's not that long ago. That was the first study that showed that women with PCOS have an abnormal or dis biotic gut microbiome associated with markers related to impaired gut barrier or leaky gut.

And that was like astounding to so many people. But like we've been talking about that for a few years earlier, we just hadn't proved it, you know? So then after that, many other studies came out just, you know, confirming that this is indeed the case.

And like you mentioned, I'm so glad you brought up testosterone because the microbiome, when it's abnormal in women with PCOS, it actually can increase, like you just said, testosterone that's circulating.

And it's really a fascinating thing. In fact, they've even done studies where men, for example, if they did a fecal transplant of men's, you know, microbial populations into women, which they did before they realized they shouldn't do the intersex.

So transplants with the fecal material that the women who received the men's fecal material actually started producing testosterone at higher levels and higher levels in their body.

So don't underestimate the power of these trillions of microbes and what they can mean for us, both for good and for bad, you know, depending on their composition.

So what can a woman do like women with PCOS now? They've proven that, you know, without treatment, they have this abnormal gut microbiome. So they're going to have problems.

You know? So what are some of the steps they can do to not only help improve their gut microbiome, but also maybe you can expand it into the liver so, I mean, it's really depressing.

You know. When you think about my liver is fatty, it's not working, right? It's not detoxifying. My gut microbiome is not great. It's like a problem. So like, what can we do?

Because this is a big deal, you know, we got it first. I always say the first step is to define the problem. Then we got to get some solutions there. Absolutely.

Birth Control Pills, Nutrient Depletion, and Gut Estrogen Recycling

And honestly, you know, I'm all about foundational work. Are there supplements out there that can help? Is a big band aid? Absolutely. And we can talk about some of them.

But that foundational work of what are you eating, how are you eating? Are the things that you're eating more of an irritant causing more inflammation?

And for example, if you know that dairy is a problem for you, but you cannot give up your lattes every morning, you're just adding more fires, right? Every time you drink that latte, you know it's a problem.

Imagine what your intestines think, right? They're like, really again. Then your immune system has to get involved. And so, you know, there are foods that you probably shouldn't be eating on the regular.

I mean, it can even be as simple as that. The types of foods that you're eating, even with I've seen over and over, like more meditating, more Mediterranean style diet, more higher fiber, and they're different types of fiber.

We talk about carrots a lot. I talk about carrots a lot. So with carrots, it's not a baby carrot. It's a real carrot. Like what Bugs Bunny would eat. But you want an organic carrot, you just don't peel it.

So you want to wash the skin, but you want to keep the skin because you want to eat the skin, the outside of the carrot and the inside of the carrot is a little bit different.

Fiber and both fibers help to correct the microbiome. The Astro Bloem is what they've done some research on. And so people go, Well, can I, can I peel it and have a carrot salad?

Sure, you can peel and have a carrot. So but that fiber also helps with improving movement through your intestinal track. And how your microbes grow or don't grow.

And so are you getting enough fiber. So again, some of that foundational stuff, even things like alcohol, alcohol affects the liver negatively. It absolutely affects your small in your large intestine.

So evaluating how much alcohol that you are or aren't consuming medications, are you popping acetaminophen, which is Tylenol regularly because you've got a headache?

Maybe we should evaluate why you got a headache because that acetaminophen, that Tylenol, even though you think it's over the counter, it must be super safe.

Really does a number on your liver and subsequently your GI tract. And so even just these little shifts in evaluating what you do day to day that you think are just your typical habits may be increasing the risk for for the fires in the inflammation.

So again carrots, fiber, probiotics. So with our gut health, we really like when you feel your microbiome. So foods like fermented foods if you can handle them.

So think of like kimchi, which is my absolute favorite sauerkraut. Those are those prebiotics. And then we have what are called post biotics, which is the new word for our short chain fatty acids and honestly appropriate ACH is just what our probiotic poops out.

Funny enough, but we did get a very classy name because that in sound classy so we prebiotic foods probiotic foods and then post biotic and we're just trying to help rebuild the resiliency, rebuild the strength and prove that you know that all the way through ness of your digestive track.

And I'll back up and say remember I said your digestive tract starts with your mouth. So if you're listening to this, you're going to the dentist in a while.

Maybe it's time to go see a quality dentist. It's also really important you chew your food. I know this is a hard one to hear, but when you get down into your stomach and then in your small intestines to digest, it's so much easier on your body if you have chewed your food.

You are not a snake. Do not unhinge your jaw and just swallow things whole. Make sure you choo choo choo that will help and that will actually help you with that leaky gut where the we call it leaky because it has like you have gates and the gates can open and stay open and a problem with the immune system.

And so by chewing your food in a tiny, tiny particles, it actually makes plays a really big role. Now, as I said, with the liver, the liver requires a lot of nutrients.

So evaluating are you eating a rainbow of foods is because to get all the nutrients or do you truly maybe need to add in some quality supplements to help but such as a multivitamin which we talked about or, you know, a b-complex or even a protein powder that has added nutrients in it is is good because unfortunately, there can be a lot of junk out there.

Now, also, when it comes to the liver, we do love our cruciferous vegetables, which I know for some people can be a little hard. But that's like your broccoli, your kale, your cauliflower.

That really does truly help you navigate estrogen better down the proper pathways in the liver. So if you're not normally in broccoli eater or a cauliflower eater, maybe start adding that into your life a little bit more, slightly cooked chopped stir fry it a little bit.

You don't want it soggy. You don't want it well done. You want it just a little bit steamed or a little bit stir fry, and then that can can be really helpful.

And that's a that's a good start for people. I think I could go on and on and on, but that I don't want to overwhelm people at the same time. Well, that is great.

I have to say, my personal favorite cruciferous vegetables is Brussels sprouts. And I love them, you know, like a lightly roasted. That's my favorite.

And I would love for you to come in because obviously having poop is like that's the elimination of from the colon. And if you don't eat the right foods, you're going to be constipated.

That's a very big deal. Then you're not going through this elimination process. Now, a lot of people are doing all of these like smoothies. So, you know, you mentioned this really resonated with me, too.

Your food and chewing has a lot of functions. It mixes with the saliva, which has digestive enzymes in it. And it's, you know, has the bacteria that help break down the nitrates and all that. That's a whole big thing.

So we definitely want to have food, sit in our saliva and be chewed and the chewing tells the brain, here you're eating. So then you're going to start getting the proper digestive functions with stomach acid produced and digestive enzymes coming out of the pancreas and so on.

But in terms of just like the fiber, I've always wondered like what happens when you take vegetables, wonderful vegetables and fruits, and then you turn them into liquid, you liquefy them.

You know what happens to the fiber? Are you getting the same benefits when you drink these smoothies and what can you do if that's the only way that you like to take vegetables?

And is that okay as a substitute? I'll be honest. I don't know if there is literature on that, but I do encourage people if they're juicing, for example, or in doing that, that you want to keep the pulp.

You know, sometimes with juicing, people will completely get rid of the pulp. They don't like it that's a taste

sensation thing for them. But I'm like, but that's that's where the money is.

That's where the magic is. When it comes to your GI health, you want to keep that veggie pulp in or and even the fruit pulp and it to help. And I agree with you, I'm not I'm not against smoothies at all.

But I do struggle when people tell me, like, why do a smoothie for breakfast? I do a smoothie for lunch. And they just sort of live on this liquid diet.

And they not always but often struggle with GI symptoms. I'm like, right, because you're not actually chewing your food, as you said, to send the signal all the way down to because then have peristalsis to like move things through your colon and get it out.

If you're listening to this and you are a smoothie queen and that's what you live on, but you are really struggling, consider changing it up. Consider adding in real food, whole food that you truly have to chew because you're going to have to retrain the whole GI tract to the brain to get that for completion of digestion by two in your food.

And if you do remove the pulp, put it back in. I basically say the same things I say if you love your smoothies and I my personal favorite would be carrots and beets mixed with ginger.

I just think that tastes delicious, you know? But I think of it as an adjunct to eating the food on your plate as opposed to a replacement, you know, for for the fruits and vegetables that you would chew.

So I think that's great. I mean, because, you know, we want to take it just like exercise. We'll take it any way you give it. But, you know, but if you can add the food that you to, that's probably good.

But, you know, the smoothies on the side and I would say, well, maybe you could like hold it in your mouth and like mix it with your saliva for a while at least, you know, give that a try.

But I know that, you know, they do taste delicious and we tried to mix it up because you got to poop. I mean, if you're getting great big poops and maybe you can just comment on what is you know, we don't want to end on that note, but what is a good poop anyway?

Ideally, ideally, you should poop, you know, 1 to 3 times a day, every day, and you want it to be formed. I mean, sort of the running joke, although it is true, is that you kind of want its banana shaped, you know, intact what comes all the way out.

And if you've ever watched an animal, most animal, a healthy animal, hope that they don't need toilet paper. Right? In a healthy setting. They poop and go about their day.

And you unless they have like a lot of hair but in general, like, you know, dogs and cats, horses, they don't need toilet paper.

Gut Health, Fiber, and Supporting Elimination

Humans should be the same. We should shouldn't have to wipe and wipe and wipe away white wipe because there's a lot of sort of sticky mess left over. That tells me there's something going on with the microbiome and a lot of people have never considered that before.

They'll say, Well, I go, you know, two or three times a week or the opposite. They're like, I have loose stools all the time. I'm constantly wiping. I go through a lot of toilet paper or wet wipes.

I thought that was normal. I just assumed everybody did because poop is gross. And I understand. But no, you want regular daily formed bowel movements.

That's what we're going for. Well, that's great, because that's a good, really good clue, right, that your gut

microbiome is proper, you know, and that your liver is able to do its job.

And so it's not everybody can access all the advanced testing. Right. But this is like a good do it at home kind of thing. Like what do you poops look like?

How many do you have and are they painful? Are they hard? You know, how how's it going? Right? Do you have cramps and so on? That's it's really good clues.

So if someone is going to like try to repair like a fatty liver, okay. So by doing all these things, you can definitely have tremendous improvement when you say yes.

Oh, yes, absolutely. Absolutely. And I think we know nonalcoholic fatty liver is exactly what the name implies. It's not alcohol related, but it definitely it is dietary related in combination with inflammation, insulin and loss of important nutrients in the body.

And so the first step with fatty liver, of course, is which glucose and insulin which somebody with PCOS often struggles with and what are the things that you're eating?

Are you living on sodas? Are you getting a lot of fructose in that, you know, high fructose corn sirup? Are you living on high carb? Even even people who say, you know, they've got I went gluten free and I've gained all this weight on understand I said, well, what are you eating now?

Like gluten free donuts and gluten free cookies? And I'm like, Well, did you eat that before? Well, they're like, No, but it's gluten free. So sometimes even, you know, I understand.

But you're no matter what you're doing, we have to sort of evaluate is it for the greater good? How is it helping you? And also to reinforce it's okay to seek help if you don't know what you're doing.

If you're listening to this going, I would like to try these things that I don't know where to start. It's okay to find a practitioner, a doctor, a coach, someone who can walk you through this either lifestyle, diet, exercise all the way up to, you know, advanced testing depending on your budget.

It's okay to add to your medical team. So I would agree with you on a lot of these suggestions can definitely just help nonalcoholic fatty liver. Yeah.

I want everyone to know that it's so important to understand that that you need to work on every facet of health. It's nothing is simple in this world, being healthy and you're not just going to focus on making estrogen or receiving estrogen.

You got to really understand, because this is such an understudied and under-discussed topic, you know, the whole process of bio transformation or detoxification, metabolic, you know, reduction in in terms of transformation of, of products that the body produces as well as things that it gets in from the outside, the inside genus and the endogenous inside and outside obtained products that need to be modified so that you can actually get them out and then you have to be able to eliminate them.

So we talk about, you know, the crucial areas of health and detoxification and elimination are way up there at the top. They're not like like little insignificant, like footnotes in terms of health.

These are really huge topics. And and if you have problems, the critical thing that you gave, which I love, Carrie, is hope that, yes, you can get your health back.

These aren't like, oh, there's nothing to do. Like now, you know, you have this problem, you're just stuck, right? No. You can take tremendous action to actually resolve and transform your body into a healthier one.

So this has been such a gift having you on with me for this summit. I'm so appreciative. Thank you so much. And I

am sure everyone out there is thinking, I want to hear more.

I want to learn and follow this amazing naturopathic doctor. So how can they find you or see the different things that you're doing? You know, because I know that you had mentioned that you're going to even be doing your own kinds of productions and you have a podcast, right?

So maybe you could share a little bit about how they can follow you and learn from you. Absolutely. So the main overall websites www.drcarriejones.com I am mostly on Instagram.

I know there are a lot of social mediais out there mostly on Instagram @dr.carriejones and then you can listen to me at the Root Cause Medicine podcast, where I am one of the hosts.

I've been hosting it regularly for about a year and step back and now I have another co-host and we share it throughout the month, but it's a lot of fun as well.

So thank you. Oh, well, that's great. I know I can't wait to go and listen to so many of the podcasts. And I like to I like to relax in the bathtub and listen to the podcast.

So you're going to be. Coming with me, okay. For my relaxation trip. You know, nothing like getting some education while you get relaxation, right? So thank you again.

So much for joining me. And I just can't wait to see what the next chapter of your life will be because you have delivered so much good for women with your hormones and women's health programs and everything.

So thanks again and just keep going. Well, thank you for having me, Dr. Gersh. I absolutely appreciate it.