



Applied Nutrition in Clinical Practice Transcript – Class 2 Part 3

0:00

Then I want to know their birth history. Was that individual carried to term or were they premature? Then I want to know if there were any pregnancy complications when they were in utero. I had one client whose mother took DES, which was a drug that was prescribed to millions of mothers for preventing miscarriage. It was a synthetic estrogen, but they found out that it had some serious side effects like causing tumors in those girls that were born, and even causing birth defects. So that client whose mother took that had some serious metabolic issues that we were working on.

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I also want to know if there were any birth complications, so were they born via C-section, or were they born vaginally? A baby's digestive tract is pretty much sterile when they're born, and when they get birthed through the vaginal tract, they get exposed to all of these great bacteria from the mother, and that starts to populate the digestive tract and is really important for preventing things like ADHD, allergies, asthma. So we want to know if they had that opportunity to be exposed to that, or were they born via C-section, in which case, they would have not had exposure to any of that at all. There have been a number of studies looking at the difference of the microbiome between a baby who was born vaginally, and a baby who was born by C-section. So very important there in terms of how is that starting off their immune system? How are they starting off right when they come into this world, in terms of building the microbiome, building the immune system, and building one of the most important aspects of the body?

1:51

Were they breastfed, or were they bottle fed? If they were breastfed, for how long? Breastfeeding is like the ultimate download into that baby of immune factors, and growth factors. Breast milk is the most concentrated source of DHA in nature, which is a critical Omega-3 for building a nervous system. So we want to know if they're breastfed for how long. And if they're bottle fed, not only are they not getting nature's perfect food, but they're being exposed to a lot more allergens, because a lot of formulas will have dairy in it, for example, or soy in it, and babies can become sensitive to that quite easily, especially because the gut hasn't had a chance to fully develop its integrity. It's actually by nature, leaky right after birth, and it's a leaky so that it can get as much nutrition as possible into the bloodstream when they're growing.

2:56

I also want to know a little bit about the age of introduction of solid foods, if they know this information. Most people don't know this information. And when they introduced dairy, and/or wheat. Did they eat a lot of candy as a child? So some



people say, oh, yeah, we always had a sugar cupboard with cookies, chips, sweets, and all that types of stuff. And some people say oh, no, no, no, my parents would not allow any of that in the house. And again, that's going to give me a bit of an idea of what their diet was like throughout their childhood and how much sugar they might have been exposed to.

3:32

Then we're getting into oral health, so dental history. I ask them if they have any fillings and if they do have fillings, are they dental amalgam fillings or are they composite fillings? Dental amalgam fillings, mercury fillings, are about 50% mercury, and they are going to put an extra toxic load on the body of mercury. We now know beyond a shadow of a doubt that mercury is toxic, but we're interested in the total toxic load. So if someone has one mercury filling, it's usually not my priority to tell them to go get it out. Usually. Now, if they have like 16 mercury fillings, that is significant. I mean, there's going to be a huge buildup of mercury. The body has a very compromised ability to actually detoxify that mercury at that level, so that becomes more of an issue. We have to take all of this into account. How many mercury fillings you have, if you have white fillings or composite fillings? How many of those do you have? If you have other types of fillings, I'll also want to know. Is there any gold fillings or gold teeth? There's research showing that when there's two metals in the mouth, like gold, and mercury, that could actually create a current in some people's mouths. That's actually how you make a battery. You take two different metals and that creates a current.

4:57

Do they have any root canals? So, root canals can fester or cause some serious infections. With a root canal, the best example a dentist gave me once is, if you take a tree and you turn it upside down, and the trunk is the tooth, what they do is they pull out the trunk, and that's about it. So all of the branches and leaves and everything are left in the mouth, there's actually dead tissue in the mouth, it's the only surgical procedure where they leave dead tissue in the mouth. And bacteria can fester and grow in these little microtubules, which white blood cells, part of the immune system, cannot get to. So that can be a slow drip on the immune system. There's some really great information out there on root canals if you want to learn more about that.

5:54

Then I want to know if they have any implants, dentures, any tooth pain, bleeding gums, again, pointing to vitamin C, or at least scurvy. I also want to know if they have gingivitis, or mottled teeth. So mottled teeth are like small divots in the tooth, and that can be due to fluorosis, which is a fluoride toxicity. Kind of ironic that fluoride toxicity can damage the teeth. I want to know about any mouth ulcers or lesions, fissured, scalloped or coated tongues. So I ask if there are any cuts or sores on the lips, on the tongue or on the cheeks. That's tied very strongly to vitamin B deficiency, different B vitamins; very important for rapid cell growth, and especially in the oral cavity. Any problems with chewing,



that would be very significant if we're giving them a specific diet. And do they floss regularly? What I mean by that is do they floss in the morning and in the night, two times a day? It's very important for oral health, but many people don't do it. Remember, the mouth is the beginning of the whole digestive tract, and they've actually found bacteria that live in the mouth, in other parts of the body, like the heart tissue affecting heart health. So oral health is actually important for whole systemic body health. What's interesting also is that the bacteria in the mouth actually convert the nitrates in green leafy vegetables to nitric oxide, which actually helps to open up the blood vessels in our body. So when people are using mouthwash and anti-microbials in their mouth, they killed all their bacteria, they lose the ability to actually make this very important nitric oxide.

7:44

Then we're getting into the nutrition history. I kind of want to know where they're starting out. Again, we're doing a whole diet diary so we can see in detail what they're eating. But these are just a few more general questions. I like to know if they've ever had a nutritional consultation before. Where we're starting? Have they consulted with anyone? So sometimes people say, oh, yeah, I've seen like three nutritionists, or I've seen like four naturopaths. When people say that, I want to know why they didn't have success with them. What recommendations were given to them? Was it a matter of them being recommended the wrong items for their specific concern? Or did they have a compliance issue? All valuable information.

8:33

Have you made any changes to your eating habits because of your health? So have they gone ahead and tried anything to help adjust their health? Yes or no? And if so, what type of changes have they made? So some people take some things on already before they meet with you and some people just haven't tried anything. And then I ask them if they follow any specific nutritional ideals. I say, these may be right, and these may be wrong; don't judge them. They may be good or bad, it really doesn't matter. I just want to know if you keep these things in your mind when you're choosing your food and when you're eating your meals? So I ask them about low fat. Remember, low fat is sort of a fad that has passed? We know that fat is very important. So if someone says they go for low fat, I'm very curious to know as to why they're trying to avoid calories in that fashion. Low carb, high protein?

9:40

Low sodium, are they avoiding salt? There's a big difference between table salt and sea salt., so we want to figure out if they're avoiding both of those or one of those. Do they follow a diabetic diet? Are they dairy free, wheat free, gluten free? And most people say, I try, it I'm like 95%, which is significant because with a lot of those allergies, it's really an all or nothing situation for success. And are they vegetarian or vegan? And are they something else that I didn't mention like a fruitarian?



10:17

And then I ask them, do they avoid any particular foods, and why? Very significant because sometimes people just don't like certain foods, so we want to keep that out of their recommendations, or there are certain foods that cause problems for them. And then if they could eat a few foods a week, what would they be? Or sometimes I even word it as, if you were stuck on a desert island, what would your one food be that you could take with you without any consequences? And I always like to basically get like one food from them. And then I ask them if they grocery shop. So this is obviously very significant. Most people will say yes, but some people say oh, no, my wife grocery shops, or we have someone grocery shop for us.

11:04

Do they read food labels? Very important to know what's in your food? Not so interested in the nutritional label, like the calories and the fats and the proteins and the carbs and that, I'm interested in the ingredients, that part of the label. And do you cook? If they don't know how to cook, we know that we have to start there. If someone else does the cooking, we know that we're going to have to get them involved in the program. And if they cook, we know we can work with them with the recipes.

11:34

And then how many meals do you eat out per week? Is it zero? Is it two a day? And if they say they are eating out, I always like to ask, where do you eat out? What's your bar for what healthy is? Is it McDonald's? Is it an organic restaurant? Is it a vegan restaurant? Is it places that use clean food? Is it farm to table? I want to know kind of where they're at with that.

11:58

And then I love this next question because most people know what they need to do. So I ask them, what's the most important thing you think you should change about your diet to improve your health? And oftentimes people will tell me exactly what they need to do. They just weren't 100% sure if they should do it, or how to do it. And then I can use those recommendations as part of their protocol. And when I present it to them, I say, well, you were the one that recommended this, so let's get started there.

12:32

Then I want to know about smoking? Do they currently smoke or have they smoked in the past? We know that smoking is really not good for anyone. It increases lung cancer risk by about 10 times, and it exposes the body to a huge amount of toxins and carcinogens. So if they currently smoke I want to know. I had one business executive, he was in his late 50's, and he wasn't a chain smoker per se, but he had like one to two cigarettes every evening when all of his family went to sleep, just to kind of unwind and relax. In that case, I worked at trying to replace that habit with something else that can help relax him that wasn't damaging, but maybe building him up. If they do smoke, or did smoke, how



many years have they been smoking, or did they smoke? How many packs would they have? Had they ever attempted to quit? I want to know their motivation on that. If they are a previous smoker, as I mentioned, I want to know how many years and how much they smoke. And also, I want to know if an individual's been exposed to secondhand smoke. So did they grow up in a house where both parents were smoking around them? And of course, there are a number of implications and dangers with being exposed to secondhand smoke. I just recently learned about third hand smoke, where there are certain items that have been exposed to smoke like upholstery and couches and furniture and whatnot, and those actually off gas toxic materials. I remember we saw a really nice unit that someone was throwing out on our street, and we brought it home. We planned on kind of refinishing it and upgrading it a little bit, but it smelled so bad. It smelled like smoke; whoever had it was definitely smoking in their home. We just could not get the smell out. We tried everything. We tried washing it down, we used vinegar, we use baking soda, we let it sit out for a while and the smell would just not go away. We ended up having to throw it out. But just goes to show you how much that stuff can permeate into our surrounding items.

14:49

And then I get into alcohol intake. So how many drinks do they currently have per week? If they're drinking, what types of drinks are they, and of course this could have various implications. If they're trying to go gluten-free, you can't have beer. I also want to know about wine; if they're having red or white wine, and if they have any reactions to that. Red and white wine can have sulfites in them that people are sensitive to, and that points to possible issues with detoxification in the liver. Self-oxidation deals with sulfites, and it's actually molybdenum dependent, so that's a mineral that could help people in that area. And then previous alcohol intake. Was it really high, was a mild? Some people aren't currently drinking, but they binge drank for 20 years, and that's going to slowly deteriorate their health during that time as well. And then I want to know about other beverages. Do they drink coffee, and if so, how many coffees do they have per day or per week? Do they put anything in their coffee? Sugar, milk, cream? Do they drink tea? This would be caffeinated tea, because there's a question a little bit later on right below that for herbal tea. So if they drink tea, is it green tea or black tea, and how many do they have?

16:15

Do they drink water? Super important question. How much water do they drink? And what type of water is it? So we're like 70% water, and if we're not drinking filtered water, we are the filter. We need good clean water. So is it tap water which is going to have, in most places, fluoride and chlorine in it and possibly trace drugs, hormones, heavy metals, different things in there? Is it Brita water? Brita, as you know, is just basically a carbon filter that takes out the odor and some of the chlorine. Or is it something else like spring water, reverse osmosis. Or sometimes people are drinking exclusively bottled water out of



plastic, in which case they're going to be exposed to huge amounts of xenoestrogens, phthalates, Bisphenol A and whatnot.

17:08

Do they drink milk? Do they drink wine? Fruit juice? vegetable juice? And if so, what type of juice is it? Is it freshly squeezed juice? Or is it in a container from the store? And then I like to know if someone has a juicer, because that's always a really great therapeutic tool for certain things. Do they drink any herbal teas? Any soft drinks or anything else or I didn't mention? Sometimes people say kombucha or some other interesting drinks that I didn't cover.

17:40

Then I want to know if they chew gum. And if they chew gum, how much do they chew, and how regularly are they chewing it?

17:47

Then I want to know about an individual's level of activity. Sometimes it's called exercise; I like to call it movement. I ask them what do they do for their movement, for their exercise? Is it yoga, is it walking, is it the elliptical, is it classes, is it weights? And how often are they doing that? Is it like weekend warrior type workouts where they go biking on Saturday and Sunday? Or is it every day? And how committed are they? What's their level of motivation to have exercise in their life? So is it something that they've been doing for years, and it's just a no brainer? Or is it something that they really have to trudge through and push themselves to do often. And then I want to know if they have any problems that limit them from doing activity. I'm not going to start recommending they walk and run and do weights and all these things if they have certain things that limit them. So sometimes people just have fatigue, sometimes they have a physical issue, sometimes they can't pay for a gym membership. And there are solutions around all of these things, so I want to know what those barriers are. Do they feel unusually fatigued after exercise? Exercise should energize us; it should make us feel invigorated. We should feel better after doing exercise, we should not feel tired and depleted after exercise. So if they're feeling tired and depleted after exercise, that exercise is taking more than it's giving. and that's significant as well. Do they sweat when they exercise? So sweating is also really important. The more out of shape you are, the quicker you will sweat at any given heart rate. The better shape you are, the longer it will take to sweat. But also, people who have heavy metal toxicity, have trouble sweating. And a lot of people have actually forgotten how to sweat and they have to kind of reteach the body. I've worked with clients where we get them in the sauna for starting with five minutes at a time to really get the body sweating again. And sweating is one of the best ways for detoxification. It's actually one of the only ways and the most efficient way to get rid of cadmium; we get rid of it through the sweat.



20:07

Then I want to know all about psychosocial stress and coping levels. Remember the mind and our perception is a key factor of our health. So these are the molecules of emotion. And this can be something that can sabotage a whole protocol if someone has a lot of negative thought patterns, or has had a lot of traumas in their life. Do any events or moments in your life stand out as being more stressful? And that oftentimes brings up some key critical times in their timeline that's going to point to possible implications in their health. What do you worry about most in your life? I want to know what's on their mind what they worry about. The most common ones are money, my kids, and my health.

21:01

What do you do to relieve stress and relax? So after the stressful question I ask what the relaxing one is. What do they do to decompress? What do they do to get a load off? And then I assess whether that's, like a constructive type of way to do things, or a destructive way? Are they always relieving stress and relaxing by having that Scotch every night? Or are they doing yoga and spending time with friends and reading a good book and taking a bath and going for a walk? Things like that.

21:33

Do you feel life has meaning and purpose? So purpose is a critical aspect to health. There's a really great book called *The Blue Zones*, written by Dan Buettner, and what he did was he studied places all around the world with the longest-lived people. What he found was that there are nine things in common of all these different cultures. These cultures had the highest amounts of centenarians, people over the age of 101. One of them was having a life's purpose; a very critical aspect, something to live for something to look forward to, something to work for.

22:10

Do you believe stress is currently reducing the quality of your life? So I want to just see where people are at in terms of being aware of the stress in their life? Do you like the work you do? We spend five out of seven days a week at our job, typically. So we spend most of our life at our job, so we should like the work that we do? And if not, that's also a big stress? Do you spend the majority of your time and money to fulfill responsibilities and obligations? Do you ever have time for yourself or are you always giving yourself to others?

22:46

Would you describe your experience as a child in your family is happy or secure? And oftentimes, a lot of our patterns, a lot of our habits, a lot of our thought programs get established in the first seven years of our life. So that's a very critical time for development. Do you feel you have excessive stress in your life? Yes or no? So quite a few questions around stress. And then sometimes I ask them to rate these various items on a scale from 1 to 10; 1 being barely stressful,



10 being extremely stressful. So work family, social, finances, health, or anything else.

23:26

And then I want to know if they practice, or they've tried any relaxation techniques? And if so, how often they do it, and what type is it? Is it Yoga, is a meditation, is it imagery, is it breathing, Tai Chi, prayer? All of these relaxation techniques help the body get from a sympathetic mode to a parasympathetic mode, from a catabolic breaking down mode to a healing building up mode. And then finally, have you ever been abused or a victim of crime or experience significant trauma, which can really hurt people's health long-term if they have not dealt with that?

24:05

Then I want to get into the restorative aspect, sleep. We've talked about sleep, remember, we talked about insomnia in the symptomatology section? But I want to dive a little bit deeper into sleep because it is so important. That's our place of restoration where we regroup, where we grow, where we release growth hormones, where we repair tissues. How many hours of sleep do you get per night? And sometimes I get a range. Sometimes people get 5 hours, some people get 10 hours, some people get 8 hours every night. Do you feel rested upon waking, so if someone does not feel rested, they didn't finish their job, they didn't have a good quality sleep, or they didn't sleep long enough, or they're burning the candle at both ends. Do you use any sleeping aids whether it's natural or drug related? And then I'd like to know about their sleep routine, about one to two hours before bed. For example, are you watching TV? Are you looking at your phone? Are you looking at your computer? Are you listening to loud music? All these things keep the nervous system stimulated. Bright lights coming from screens and phones, and even the lights in the wall, prevent appropriate melatonin production. Melatonin is critical for sleep. It's also a potent antioxidant. It also protects women from things like estrogens, they are really protective for breast health. So I want to know about their melatonin production as well, and their hormones in that respect.

25:42

And then the final page of the questionnaire, now on page 11, we start with roles and relationships. Everything in life is a relationship, you go get a coffee, or a tea at the coffee shop, that's a relationship with the clerk. You have friends, families, you have clients, you have patients; everywhere involves relationships. I want to know about the key relationships, such as any intimate relationships. Are they single? Are they married? Are they divorced? There's something called the social readjustment scale, which rates different life events and how stressful they are. And the death of a loved one is number one. And the divorce is actually number two. Very, very stressful for a lot of people. It's a significant part of the timeline, and something that can actually change the course of someone's health. Are they in a long term or short-term relationship? Or are they a widow, did their spouse pass away? And then if they have children, I like to know the child's name, what



age they are, and the gender. And if it's a female, I could also extrapolate from this, if I get the ages, when they were pregnant with their child and put that on the timeline. And then I want to know who's living in their house? Is it just them? Do they have a roommate? Or is it like, three of their kids and two of their new partners, kids and a dog, and one of the kid's friends. I've had clients that have just households that are just chaotic, so they never really have a time or a place to really unwind and decompress.

27:28

And then I do a really nice environmental and detoxification assessment. So are you able to go to sleep after consuming caffeine? Does caffeine prevent you from falling asleep if consumed early in the day? So caffeine metabolism points to Phase I detoxification? In Phase I detoxification, there's an enzyme, I believe it's 1A2, which deals with caffeine detoxification. If it's working really fast, people can have caffeine right before they go to bed and sleep no problem. People who have caffeine, maybe like a green tea in the morning and can't go to sleep at night, have a very slow Phase I detoxification pathway. So we want to balance those two pathways, Phase I and Phase II so that Phase I is working fast enough to bring the constituents into Phase II for detoxification. We don't want to working too slow or else toxins get caught up and we don't want to working too fast when Phase II can't keep up.

28:32

And then ask if they react adversely to any of the following: MSG, which is monosodium glutamate, aspartame, obviously to chemicals which someone can be very sensitive to. Bananas, which are very high in potassium can sometimes throw people off if their adrenally fatigued. Garlic and onions; we detoxify the constituents in garlic through sulfoxidation. Also, when people have very low stomach acid, garlic and onions could like kind of sit in the stomach too long. Cheese, which, of course, is dairy based. Citrus, which sometimes can increase inflammation for people. Chocolate, alcohol we talked about, and red wine. Also, I want to know about sulfites, we mentioned that. Usually, they're found in wine or brightly coloured dry fruit, sometimes salad bars. And sulfites, of course, are a sign of detoxification, as well as sulfoxidation. Are they sensitive to preservatives like sodium benzoate?

29:38

And then I want to know if any of these significantly affect them: cigarette smoke perfumes or colognes, and auto exhaust fumes or anything else. So when we smell something, we have to detoxify it. When you smell someone's perfume, there are actually particles coming into your body that you have to detoxify. Same with cigarette smoke, which is a little bit more obvious, and auto exhaust fumes. When these types of scents incapacitate someone, so I'm not really interested if someone says, oh yeah, I don't like the smell of perfume. It's not really significant. But if they say, yeah, every time I smell perfume, I get a migraine headache, and it just puts me out of commission. That's significant, that's telling me a lot about their ability to detoxify these chemicals. I remember I



had a client once, who was working in a department store in the fragrance area for 15 years, and she got to a point where she just couldn't go to work anymore. She had thyroid issues and a whole bunch of other health issues and she couldn't even smell anything with a scent because she was so sensitive to it. Over those years, she was detoxifying all those scents and slowly losing her capacity year after year to actually detoxify those chemicals until it reached the tipping point. In your work or home environment, are you exposed to chemicals, electromagnetic frequencies, mold? So in a work environment, I've had a hygienist who was exposed to high levels of mercury and lead, especially many years ago. Is there mold in your home? Do you have a known history of significant exposure to any harmful chemicals such as pesticides, herbicides, insecticides, fungicides? Some people grow up on farms and they get exposed to a lot of chemicals that way. Organic solvents like varsol, lighter fluid, gasoline? Heavy metals we mentioned or anything else?

31:43

And then I ask them do they currently dry clean their clothes frequently? Dry cleaned clothes have PERC in them. Perchloroethylene, I believe is the long name and these are toxic to the body as well. What do you use to wash your clothes with at home? Tide, Sunlight, or is it something natural? People are washing their clothes in detergents that have fragrance in them and various chemicals that just go right into the skin when we're wearing those clothes all day long. Do you use fabric softener? So again, we wash our clothes, and then we put them in the dryer with more chemicals. Usually when I ask people that question, and they say yes, in the intake, I say right off the bat, get rid of the fabric softener. It's just toxic.

32:33

Do you have any pets or farm animals? Sometimes people have dogs or cats. Sometimes they're allergic to them. That's pretty significant. What kind of cookware do you use? I want to know if they're using Teflon or aluminum, which are both toxic. Teflon goes into the air when we heat it up. Aluminum can go into the food, especially the more acidic the food is, or are they using more inert forms of cookware like glass, ceramic, titanium, stainless steel? These are really good cookware forms. Do they use a microwave? Usually that kind of tells me where they are in the health world and I'm highly against using microwaves. What do you clean the house with? Is it Mr. Clean or is it natural, like just vinegar and water and essential oils? Because a lot of those chemicals we use are toxic, they off gas after we've used them and you can smell that kind of pine sol smell. But those are all toxins that the liver has to process; it adds to the total toxic load.

33:43

I want to know if their house was built before 1950. Back in the day, it was a lot more common to use lead piping. Also, something that's important for certain people is do they have radon in their foundation or in their basement, which you can actually test for? Does the individual use makeup? Makeup is oftentimes



laced with heavy metals and plastics and various chemicals that will make a lot of the makeup creamier and easier to work with. And that, of course, goes right on the skin and then gets absorbed throughout the day.

34:22

Do you have a shower chlorine filter? Something that's super simple to add to any shower. It's like 30 bucks, and it just takes out all the chlorine from the water. So when you're having a hot shower, all that chlorine isn't going airborne and going into your lungs. Do you use any air fresheners? Again, these are chemicals that are hormone disruptors; Febreze and Axe Body Spray. I believe Axe Body Spray was actually sued in California a number of years ago for millions of dollars for polluting the air.

34:54

And then have you done any home improvement lately? So new carpets, painting, new furniture? Things like carpets and new furniture have brominated fire retardants in them, which off-gas for quite some time, it's actually law that those fire retardants are put in them. And you can end up breathing those in for quite a period of time. You know that new car smell that you smell when you get into a brand-new vehicle? Those are brominated fire retardants, and lots of other chemicals. So, we want to know if there's been any major home improvement lately. Certain paints will off gas for a period of time as well. And then, of course, there are fewer toxic options nowadays, which is really great.

35:42

And then how long do you spend on a mobile phone and/or computer per day? And where do you keep your phone? So I want to know a little bit about EMF exposure as well. Are they sitting in front of the computer all day long? Do they use their cell phone a lot? If they use their cell phone, is it right up to their ear or is it on their body? We know that they emit radiation as they're transmitting, so I want to know a little bit about that as well. Especially for females who may keep their phone in their bra, which I have seen, which can be very damaging to the breast tissue. And for men who keep their phone in their pocket, right beside their genitals, right where their sperm is. And this sperm can actually be affected by that radiation as well; it's been shown in the research.

36:30

And then the final thing I do, if they are here in office, is they do just a small physical assessment. I'll look in their eyes with a flashlight to see what the whites of their eyes look like. If there are broken blood vessels, that could be a sign of vitamin C deficiency and bioflavonoids. If the whites of their eyes are really yellow, that could be a sign of jaundice. Sometimes I look for what are called bitot spots, which can happen on the inside whites of the eyes, which is a sign of Vitamin A deficiency. And you can look up what that looks like on Google, just look up bitot spots. I want to see what their pupil reactivity is. So for someone who is very stimulated, they're always in sympathetic nervous system mode and they can't really come down. If you shine a light in their eye, their pupil should



contract. But what happens is it contracts and then kind of like quivers a little bit and can't hold that contraction and almost dilates again, that's a sign of adrenal fatigue. I'll look at their skin; just do a quick visual exam. I'll look at their nails for white spots on their nails, for broken cuticles, for dry nails or ridging in the nails. And of course, there are lots of different symptomatology conclusions we can get from the nails.

38:00

I'll look in the mouth. So I'll get them to stick out their tongue and give me an aaah. You want to see the back of the throat come up, which is related to vagus nerve health, which is really important for turning on the whole digestive tract. I also want to see their tongue. If it's coated, oftentimes a sign of dysbiosis. I want to see their teeth if their mottled teeth or if they're healthy teeth. I want to see if there are any cuts or lesions on the tongue, on the lips, on the cheeks, and see if there's any fissuring in the tongue as well. And then sometimes if, again, if they're in office, I'll do a zinc taste test with them. There are two companies that have the zinc taste test. One is Biotics Research, and one is Metagenics. Really our taste buds are highly tied to our zinc level. So these companies have developed a liquid, which kind of tests how well they can taste those zinc levels and I'll include the zinc taste test form in your toolkit as well. Then I'll check their blood pressure just to get a quick level, and their heart rate as well. I've got a device in office to check that. And sometimes I'll do waist to hip ratio depending on what our goals are. If they're doing weight loss, they want that monitored. Also, for assessing cardiovascular disease risk, cardiometabolic risk, I might check their waist to hip ratio. And that concludes the comprehensive questionnaire and symptomatology assessment.