Autoimmune Fatigue

Presented by Dr. Alison Danby, ND

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Disclaimer: *The content in this transcript is not intended to be medical advice. Always seek the advice of your physician or other qualified health provider with any questions you may have regarding a medical condition.*

Alison Danby: 00:16 Hi welcome. I'm Dr. Alison Danby, naturopathic doctor and functional practitioner. I am going to be talking to you today about autoimmune and fatigue and why autoimmune fatigue is different than regular fatigue. So I have been a naturopathic doctor and functional medicine practitioner for the last 15 years with the focus in auto-immune. I got started on this journey when I was struggling with my own autoimmune condition in 2007. And since then I have been working with people, building strategies for their autoimmune health, digging into why that big picture, deep dive into what is the immune system telling us, how do we calm it down and looking for those root causes. I am the founder of the podcast Autoimmune Simplified and the founder of the Autoimmune Integrative Clinic. I love research. You will hear that on my podcast, we dive into the latest and greatest of the research.

Alison Danby: 01:09 We just recently did a whole gut health month and I've been a former high school math teacher. So me teaching on this today is what I love to do. I love helping people make connections with their autoimmune conditions and walking them through some of the research and education on it to inspire and to empower you. So today we're going to be covering a deep dive into autoimmune fatigue. And why is this so different from regular fatigue? We're going to be looking at some of the root causes of regular fatigue. We're going to look at some of the labs that you can have done just conventional medicine, easy labs. We're also going to be looking at why autoimmune fatigue is different. So we're going to be looking at the mitochondria, adrenals, and then the best part of this is we're going to dive into what can you do to make a difference right now.

Alison Danby: 01:55 So lots to take home today. So get your pens and papers out and let's dive into it. Okay. So first thing I want to do is jump in and

look at all the possible causes of fatigue. We're going to go into this a lot more detail, what we can do labs for what we're looking for when we're talking about these, but let's just go through them kind of one by one. So we're going to start at the top left hand. Infections, and this really is any blatant infection, whether it's some viral infection, herpes is a common, one Epstein Barr is a common one. So is mono, hepatitis another common one, whether it's bacterial, whether it's a UTI, whether it's yeast, any kind of affection that you may have been dealing with strep and staph are very common infections that may be blatantly obvious cause you've been experiencing the swelling and the pain associated with it, but they could also be stealth infections, meaning just these low grade disruptancies that are causing the immune system and the inflammatory system to just be chronically active so long, long term.

Alison Danby: 03:01 Chronic illness. Now this is an interesting one as well, because this could be a variety of different things. So anything that's been a chronic issue for you could be causing fatigue, especially when the immune system and inflammatory system are involved. Poor sleep. I think that's a really obvious one. If we're not sleeping, we're going to be tired. Anemia. We're going to be looking at the labs for anemia, but iron and B12 are two of the most common types of anemia that we see almost every day in so many clients. Mold exposure. This one for me has been a big part of my life and my journey in getting me feeling better. But mold exposure. And if you think about it, we're all exposed to mold. So it's just how well are you functioning and clearing the toxins of that out. Depression and anxiety.

Alison Danby: 03:46 And this is looking at not only the physical aspect of it, the biochemical and the neurological changes, but also looking at if you were going in to a job that you absolutely hate, what is that doing to you mentally? Of course, you're not going to be happy. Of course, you're going to be experiencing some mental, emotional issues. Childhood trauma. There's a lot of research on how childhood trauma impacts us physically. So those are associated with fatigue. Cancer. We're not going to be diving in today, but definitely associated with fatigue. Diabetes. And this is interesting, but diabetes diabetes, one of the reasons why it's associated with fatigue is because it is a really, really strong oxidation, meaning it ages our body quicker. So rusting us a lot faster than we should be. When we have increased oxidation or increased rusting or aging, we actually get increased inflammatory response, which is exhausting, which leads to the next point as well.

Alison Danby: 04:40 Anything that's triggering inflammation is exhausting. You're using a lot of nutrients. A lot of building blocks, a lot of energy to create this response. Poor diet. If you don't have the building

blocks, your body is going to get it somewhere. One of the things that we see actually, I'll save this for when we talk about diet in a few minutes. But poor diet definitely associated with fatigue. If you're not getting nutrients, vitamins or not absorbing them, gut health should definitely be on this as well. I just forgot to put it on there, but poor diet and gut health absorption, lack of absorption. Hormones, big factor fatigue, and a lot of women, especially if you're cycling, will notice it. A lot of women may notice it when they're hitting menopause or postpartum. We notice a change in hormones can cause fatigue. And also too on that note, which is a completely different talk.

Alison Danby: 05:31 We know that stress changes our hormones. So it actually depletes progesterone and can cause an increase more of an estrogen dominant picture. Thyroid, definitely we'll be talking about this and testing that we can do for thyroid. Thyroid is also linked to a lot of chemical exposure. So your thyroid is very, very sensitive to chemical exposure and yeast overgrowth or mold. So it's kind of not necessarily the thyroid that's causing the fatigue, which it can if you're not producing enough T3, but what's causing the thyroid dysfunction, we have to dive a little deeper in. Dehydration. That should be in bold. It should be starred. I want you to put a big star, write the word dehydration down. It's maybe that you're getting enough water, but your body's not using it properly. So inflammation can change the way that we use our water, but also too a lot of us just are not getting enough water.

Alison Danby: 06:21 And I know I'm guilty of this, especially in a busy workday. So a lot of the times we'll talk about how much water do you need to drink, but just making sure that we're getting enough is essential. Your muscles is where we store our water. So if you're dehydrated, you essentially are on your way to beef jerky muscles. Maybe not quite that extreme, but that's what they're going to look like when they're dehydrated. Blood sugar, once again, blood sugar, ups and downs. So it's different than diabetes. Although diabetes would have the ups and downs of blood sugar. If it's not controlled, but blood sugar, we know when we're "hangry." We tend to have a little bit more fatigue. Some of us get shaky. Some of us just get really tired. Blood sugar up, you have the spike and then you have the drop down, especially if it's not a controlled blood sugar.

Alison Danby: 07:04 We know that that's a big trigger for autoimmune as well. Then we have autoimmune as its own separate category, which is what we're going to really dive into today and adrenals. And that's why I left those two are at the end, cause we are going to be talking about those today, cause they're strongly connected together. And they're the two biggest things that we see in autoimmune. So let's rule out the obvious. Some of these we're

going to talk about lab tests in the next one. So I'm just going to briefly go through these others. We can just, we know. So anemia, iron and B12, we talked about this, get tested. So I will show you on the next slide what we're going to be testing. Obvious infections, bladder infections, yeast infections, strep infection, any skin infections, get them tested, get them treated. I have a lot of clients that come in and like, well, I don't want to do antibiotics.

Alison Danby: 07:50

If you have an obvious infection, that's probably causing more damage and dysfunction then you taking the antibiotics. We need to treat these infections. We need to. Now, if it's a viral infection, antibiotics don't work for that. So making sure that we're being smart about when we're taking them, that we're protecting ourselves when we're taking them, but we're cleaning up these infections, especially these long chronic infections, get them taken care of. If you repeatedly have infections over and over again, then we need to figure out why. Going on month long antibiotics, over and over and over again in't the solution. We need to figure out why you're having this imbalance. Sleep. Get to bed on a regular bedtime. If you're not having a routine, this is so important. Getting a bedtime routine, getting sleep to bed every night at the same time, if you were not in a deep sleep by 1:00 AM, you were missing out on a crucial part of healing at 1:00 AM.

Alison Danby: 08:47

Your entire body goes into the shift. So melatonin releases growth hormone, growth hormone drops your body temperature to allow for the shift to happen. And it actually shifting you into an immune response. That's cleaning up. So it goes and cleans up. It cleans up all the microbial. It cleans up dead cells. It's this whole cleanup healing state. If you were missing that you were missing a big part of your healing routine. That is essential for healing. A lot of us are not recovering. Our nervous systems are not coming down at night. One because we're not getting enough sleep and two, our sleep quality isn't great. So if you're not sleeping and you've tried a lot of things, speak to someone, get the sleep under control because that is very hard to heal. If you are not doing that one. Diet. Now a lot of us know processed foods, gluten, dairy, those things, sugar bad, bad, bad, but for many, it's actually the lack of protein.

Alison Danby: 09:42

So I have a lot of clients that have done a really, really great shift increasing plant-based products, which is fabulous. I honestly do not think you can get enough vegetables. In fact, we're not getting enough vegetables as a whole, but we need to make sure that we're getting enough protein. Protein is essential for autoimmune. Protein is what amino acids are, what makes up our immune system. And if your body's not getting enough protein, it's going to get it. It's going to get it, is going to eat your

muscles. And that's your longevity. That's your bone health. That's your immune system. So making sure that you're getting enough protein, enough fat and enough fiber. If you're constipated, if your bowels are not moving every day, guess what? You're changing your microbiome. You're actually putting yourself at risk for SIBO, small intestinal bacteria overgrowth. So diet is really finding out what's the right diet for you.

Alison Danby: 10:29 Elimination, diet AIP. Do you need to go as extreme as that? Are you making sure you're getting enough food, enough fuel, enough vegetables. So many factors that play into diet, but clean diets are by far the best. So we're looking for lots of vegetables, adequate protein, adequate fats, good fiber. And we get our fiber from our vegetables. Blood sugar. We're going to talk about inflammation. We're going to talk about if those two are not under control, you are not going to get better either. So those are big factors, blood sugar, we'll circle back to diet above as well. So we'll talk about those in the second and the next slide. Dehydration. So making sure that you're getting enough water. So an easy way to calculate. If you're getting enough water is you can take your weight in pounds and divide it by the number of cups that you drank or sorry, divided by number 16.

Alison Danby: 11:18 And that's how many cups of water you need to drink in a day. The other way is take your weight in kilograms and divide that by two. And that's how many ounces you should drink. Either way it comes out for most people, most adults anywhere from two liters to three liters, maybe 3.5, depending on your size. But most of us aren't getting it. And the number one thing that I hear is, well, I don't want to be peeing all day, especially if you're driving or you're at a desk and you're constantly going to the bathroom. So my solution to that is clustered drink. And you're probably like, what does that mean? That means you're going to take a pint glass or two and drink them both at the same time. So that's how I do. I cluster drink in the morning. I cluster drink in the afternoon and I cluster drink in the evening at around six o'clock.

Alison Danby: 12:04 I don't do it near my meals and I don't do it in near bedtime. I cut my fluids off at eight o'clock because I don't want it to impact my sleep. And I will drink two pint glasses or two of my big water bottles and make sure that three times a day I'm getting enough fluid. So then I'm not going to the bathroom cause I'm sipping all day. So cluster drink may be your solution. Thyroid and hormones, we're going to talk about in a second on this slide. So what can your labs tell us? Well, our labs can rule out a lot of this fatigue. So CBC is your your differential cells. So we look at red blood cells and white blood cells. Red blood cells, if your numbers are low, chances are it's low number of red blood cells. We want to look at anemia at that point.

Alison Danby: 12:48 So we want to look at your iron and your ferritin. We're going to talk about that next. We want to look at B12 because your red blood cells are what carries these different things that are required for them to function. Your white blood cells tell us a different story. Your white blood cells are what fight infection. So if you're someone who has chronically low, then my question is, are you one getting enough of the building blocks to make the white blood cells? Are you deficient or have you been fighting the infection for a really long time that the body's like, I can't keep up with this. I can't produce enough white blood cells to keep up with this, which could be part of the problem as well. So we want to look at these things. We want to look at the red blood cells, the white blood cells.

Alison Danby: 13:30 They give us information. If your white blood cells are high, then it tells us that we could be an active infection right now that you're fighting and we need to do further investigation. If they've been high and then they dropped really low and you're not recovering, probably is that infection is now your body's tired and exhausted and can't fight it. So it needs some help. Ferritin. This is looking at anemia. So your iron levels. Now ferritin is an interesting one. If ferritin is linked with iron. And so with ferritin, that's your iron storage tank. So ideally the labs and this is where we're going to talk about optimal levels versus suboptimal. So ferritin labs, I've had a lot of people come in and tell me that they're normal and their number is 11. So the cutoff in some of our labs are anywhere from eight to 11 is the low end.

Alison Danby: 14:18 And it goes all the way up to 200 and something. Now a menstruating woman should be around 45, an unmanaged, someone who's not menstruating is around 75. Those are fairly normal levels. And that's what we want to be achieving. Depends also what time of month you're getting it measured. If you're measuring it right around your period, it's going to be different, right? It's going to be lower because you just had you're just released a lot of blood. So we gotta make sure one, we're consistent with when we measure it. The other thing about ferritin, which makes it tricky to kind of figure out is ferritin, if you have a lot of inflammation can be falsely elevated. So you could have a nice high number, look at it and be like, yep, good. My iron levels are great. That's where inflammation needs to be ruled out.

Alison Danby: 15:08 So if you have low red blood cell numbers, high ferritin, then we definitely want to go to the next step of running the iron panel, running, making sure that we're running and inflammatory markers, which are down a little bit further to rule out a false elevation. So iron panels, looking at how your iron's binding and everything else like that. There's about four different labs in that

panel. And that just gives us a good idea of how you're using your iron, how you're absorbing it and how you're transferring it. B12 is another anemia that we want to take a look at to make sure that we're good at. I like to see B12 levels over 500 optimally, anything under 150 is danger, danger, danger too, too, too low. So we want to make sure that we're at optimal levels for this. If you're taking a B12 and you're still low, then we have to question, are you even absorbing it?

Alison Danby: 15:56 So then we're looking at gut health for that, not necessarily pumping you with more B12, but what is happening? Why are you not absorbing? So once again, we're diving deeper into this. Inflammatory markers. We want to look at CRP. C reactive protein and ESR. ESR is how thick your blood is. And C reactive protein is one of the inflammatory markers. There are so many other inflammatory markers, but for a lot of people, we don't have access to them. In labs, they're just not something that's run on a regular basis, but these are two really great starting points that are coincide with a lot of autoimmune conditions. Blood sugar. I'm going to update this slide, blood sugar. One of the ones that we want to run is hemoglobin A1C. I'm sorry. I did not add that in there. It should be in their hemoglobin

Alison Danby: 16:40 A1C is almost like a three month average of what your blood sugar was. So it gives us a good idea of how your blood sugar kind of has been over the last few months. Fasting glucose really is just the last 24 hours. So if you had a really like a high carbohydrate meal, it's going to change. If you're fasting, it's going to change to be faster too long. It's going to change fast. And glucose is not a great, accurate measurement of blood sugar, but it's used often. One of the functional tests to see how your body's functioning is insulin glucose challenge. Now, this one is kind of horrible because you have to have a sugary drink. So the insulin glucose challenge, what you're doing is you're coming in fasting, they measure those two numbers. Then they give you this horrific sugary drink. It's, it's a really sugary pop to drink almost.

Alison Danby: 17:27 And actually I think it is. And then after two hours they measure how well did your body utilize that? So it's truly is a functional test. It is looking, did you produce enough insulin? And did it pull it into the cell and what's left. So it is looking at how well are you functioning? It's a great test. It's just kind of icky because you're drinking a really sugary drink. And if you're any of the elimination diet or AIP it's really not that compliant. So you may find that you flare a little bit. Thyroid panel. A full panel is looking at not just TSH, which is important as to your thyroid stimulating hormone, but is it producing enough T4 and converting it to T3? So that's looking at one is, is the thyroid

functioning by producing the T4 and then is the T4 converting into T3 because that doesn't happen in the thyroid.

Alison Danby: 18:17 That actually happens in the gut, the kidneys and the liver. Inflammation and immune response can actually dampen that. And then we also, I always love to look at thyroid antibodies and every single person that comes in it just gives me an idea of thyroid health overall and how active your immune system is. If you already have one autoimmune condition, it's good to rule out to see if you have any other ones. Hormones is something that I love to run to look at fatigue, especially if it's kind of certain points of the month. So I like to run estrogen or estradiol and progesterone. I run the blood. I don't do the urine cause I want to see if you're producing them. And then I look at urine cortisol as well, which is your adrenal function. And then a last one I run a lot is that this is not necessarily conventional medicine, but I look at a stool analysis.

Alison Danby: 19:01 So stool analysis or a blood panel to look at any infections, stool analysis will tell us what's going on. The gut blood tells us blood level. So there's two different tests. And I, sorry, I didn't add that second one in, if you want more information on testing, the bonus that I've had for this one for this talk is my labs that I run in my practice. So make sure you sign up for that, that will get you on my mailing list. So then you won't miss out on anything that I have coming out, but it will walk you through my top 10 labs that I run for autoimmune.

Alison Danby: 19:35 Okay. So, oops. I got two slides out of the way in the wrong spot. Let's dive into the mighty mitochondria and looking at what its function is. So this is looking at mitochondria and autoimmune so our autoimmune, we have our, sorry, our mitochondria has two functions. The first function is to produce energy. So every single cell in our body contains a mitochondria. That is the energy production of the cell. This mitochondria produces ATP. And then that's where we get our energy. So all of our muscles, our heart, our stomach all of our smooth muscles in our bodies, our digestive track almost everywhere has these mitochondria, our heart muscles have it. And what happens is this energy is produced. It also has a second function. That second function is called the cell singular signaller molecules. What it is, it's a tongue twister for me.

Alison Danby: 20:32 It is when there is danger, it sends out these signals telling the body danger, danger, danger, danger, danger, danger. The problem is, is the signal uses up the ATP, is part of the whole signal molecule. So that means it can't do both. It can't make the energy for yourself and it can't yell out danger, danger, danger. Big, big problem. So if your body is under attack for some reason, and we're going to look at what the causes are,

cause hopefully that was your next question. Well, what causes this danger? Then what happens is you're not producing energy. And with autoimmune, our bodies are often felt like they're under attack. So let's take a look. So mitochondria produces our energy or sends out these signals that scream danger, danger, danger.

Alison Danby: 21:25 So what are some of the common threats that our bodies experience? Well, the most common are infections. So bacterial, viral, fungal, and parasitic. And the interesting thing that we know is a lot of these bacterial and viral actually use our body to function. We're the hosts for them, we're hosting them. So it's really, we're just starting to learn more and more information on how they're utilizing us. Now, these trigger inflammatory response and immune response because the body is trying to signal. There's a danger. We're under attack. We're under attack. So infections are some of the most common ones, fungal, mold, toxins, mold, immune response, parasitic are all in there. The next common one, actually this may be even more common than infections is toxins. The mitochondria is super sensitive to toxins. Very, very sensitive. In fact, there's some research that shows that heavy metals, there is 40% of our mercury is actually found in our mitochondria.

Alison Danby: 22:23 So our mitochondria is super sensitive to these heavy metals, chemicals, herbicides, pesticides, food additives, pollutants. If you're living in an area with really high traffic, big, big issue, and even some medications, because our body is required to clear those out. Emotional and mental trauma can also impact mitochondria, which is really fascinating because it's not necessarily a physical impact from like a toxin or infection, but it actually is a threat. And there's some really new research that's coming out on that, which I find so fascinating. And then we have physical trauma. So any kind of injury to like sprain an ankle or like any kind of muscle or joint issues can cause this inflammation, excessive exercise can cause this as well. So the tear down or break can actually cause a cell danger response. So what does that look like? So here are the stages that we actually go through.

Alison Danby: 23:21 And so when we're looking at this, what we have is a threat to the cell. So any one of those threats that we just talked about, what the cell then does is try to defend itself. It releases the ATP out of the cells and says, go call for help. Call for help. It's like, Lassie, go get help. Then what happens is our body neutralizes the problem. And then we have resolution, but this is the problem is with autoimmune and a lot of other chronic illnesses, we actually don't have that. We have the threat ourselves, try to defend themselves by calling, calling the gang Lassie, go get help, go get help. But the threat is not neutralized either. The

immune system is overwhelmed, confused, or just can't deal with it. It's not equipped to deal with it or it doesn't have that shut off. And then what happens is we go into this freeze response.

Alison Danby: 24:10 So what happens when we're in this chronic feedback mechanism? Well here, so this is called the cell danger response, which impacts our mitochondria. We start to notice a decrease in energy because our body is using the energy for signal for survival. Instead, we start to notice thick blood it's called hypercoagulation. We notice changes in circulation. So hands, feet, nose may get cold all the time. Brain, cognitively, our brain cells are not getting enough fluid. That's actually one of the things that we noticed too is because the blood is not circulating as quickly as it should because the brain vessels are so tiny that people start to be more forgetful and it's not linked to anything else. It could just be linked to thick, thick blood. We start to notice more mast cell activation. So what is that? That's histamine and allergies. You start to develop more and more allergies, more seasonal allergies.

Alison Danby: 25:04 Oh, they're really bad. This year we start to get histamine intolerance, itchy, itchy, itchy, itchy, itchy hives, all the time, itchy, itchy skin. We start to see a change in cholesterol patterns. For some that could be elevated LDL, for others that could actually be really low cholesterol. Usually see really, really low cholesterol. And then it spikes high. We can see changes in bowels, increased food sensitivities that goes back up to this cell or a mast cell activation. We see leaky gut. We see changes in dysbiosis. That means changes in bacteria in our guts. This is one of the big ones is we see a crease in the autoimmune. So we see a change in way that the immune system is stimulated. TH1 is more of a cleanup viral bacteria where TH2 is more autoimmune and allergy. We're meant to go back and forth in these.

Alison Danby: 25:52 It's like a teeter-totter up and down, up and down, depending on which one we need for many people in this state of chronic cell danger response, this feedback we can't teeter-totter, we're stuck in one of these. If we're starting to see more of the allergies, more of the immune response, especially allergy autoimmune, then we're probably stuck in TH2. If we're seeing more sick all the time, I'm sick five, six times a year, not able to clear up infections, that kind of stuff, or getting a lot of infections. We may be stuck in TH1. TH2 is the type of person that's never been sick, I haven't been sick in five years. That can tell us, they're there. We just have different ideas of which one. Autoimmune is both. Most autoimmune conditions are TH2 stimulated. We see a change in vitamin D expression. I want you all to write down.

Alison Danby: 26:41 The first test that you are getting is vitamin D. This is crucial. The amount of people that are guessing with autoimmune on what dose they should be taking. And they're guessing wrong lately. I've been having people coming in at way too high because of everything that's been happening with the pandemic. But most of my autoimmune people are actually way too low, even though they're taking a decent dose. Now, one of the things is, is this changes the way we express vitamin D. So the way we use it, we may use more. We may not absorb as well. Mold blocks the absorption of vitamin D and some people just don't convert it well. So going from the 25 to the 125 to the 25 hydroxy. So test this, I have all my clients or encourage all my clients to test this in September and test it again in February.

Alison Danby: 27:27 We're up in Canada, we're not getting a lot of vitamin D in the winter, but still get it tested. It has a reduction in B6. This is crucial for hormones. This is crucial for hormones and for calming the nervous system. And then one of the big ones, which is a change in methylation, methylation is what makes glutathione. Glutathione is what binds toxins and dumps binds toxins and dumps. Methylation is also important for thyroid function for brain chemicals and for hormone function. If you have a change in methylation, you are now shifting your entire biochemistry. So we need to make sure that we're clearing this up.

Alison Danby: 28:09 Okay. I want to shift a little bit to -- I want to shift to adrenals and how they're playing into this because mitochondria and adrenals, you're going to see kind of go hand in hand in how they play into this. And we know adrenals, we know stress is playing an impact in our autoimmune function, purely because stress is the number one trigger. The number one trigger for autoimmune. So let's look at that. Okay. So what are the adrenals? Adrenals are little glands that sit on top of our kidneys. They're responsible for metabolism, stress levels, and adapting to stress. They're meant to adapt to stress. However, they're not meant to adapt to the amount of stress that we are exposed to. They regulate blood pressure, and they actually have a function in relation to the immune system. And we're going to see that in a second.

Alison Danby: 29:04 One of the things that I want to point out here is when we start to see low, low blood pressure, we definitely are starting to look at adrenals. So one of the classic signs of adrenal malfunction is dizziness from sitting to standing. That's one of the first initial signs for a lot of people. So let's take a look at how they play in. Okay. So I want you to scale yourself on this chart. And you'll see here, when we look up here, this is where our mitochondria is playing in. We have the no resolution, and then we have the freeze state. And so the first phase of adrenal, kind of the initial

stages of when our body's like not liking how much stress we have, we get this restlessness, this overstimulation, we see this a lot in kids, the jittery kids in school, but are tired.

Alison Danby: 29:55 So we see this a lot, the overstimulation. We see restlessness, and this is the teacher in me coming out, when I think back to those kids that are in class that are falling asleep at their desk, but they are jittery. We see restlessness, possibly insomnia, and we start to see high blood sugar because they're not able to regulate. What happens when we release cortisol, cortisol releases it. Your brain releases cortisol to get blood sugar. It's to give you that energy to fight or flight. If you don't fight or flight, because you're sitting in traffic or you're sitting in class, or you're sitting at the office, it actually gets stored back as adipose tissue around the abdomen. If you're not using that energy. So we all have stress, but how many of us are running from our stress? So our body doesn't know the difference between you having a stressful conversation, or you getting chased by a bear, may be a bigger stress response, but for some it's not.

Alison Danby: 30:45 So we start to see high blood sugar. So all of these things are symptoms of high cortisol. Phase two, okay? Things are getting a little more serious. We're having a little bit more stress, longer term. We haven't really had much of a break where now getting into the wired and tired phase, we're seeing overexertion. This is where we start to see people getting sick. Often. This is where autoimmune may start kicking in. You probably won't get a diagnosis at this stage unless you're extremely proactive and really pushing for antibody testing. But this is where we start to see it because the immune system is now shifting. It's shifting because your body is not going into a healing state. So right here we saw, we're probably not getting a lot of sleep. We're probably burning. We're not getting good quality sleep. So now we're shifting. We're have no energy through the day, but can't sleep at night.

Alison Danby: 31:32 This is that wired and tired. You're buzzing. One of the biggest things about this is you're not bringing your central nervous system down. Your body is not doing the big hah. We haven't given it that opportunity. We are most likely in this stage on autopilot, go, go, go, just keep going. Just keep going. And then what happens is when you go away or you have a day off you crash. So this is that wired and tired state. This is where we start to get into a lot more complications. And this is where I start to see people clinically, when they're coming in with their automated diagnosis is phase three, the exhaustion phase. So we're seeing extreme fatigue. We're seeing exhausted. We tend to see a lot of thyroid issues because the thyroid, adrenals and ovaries - hormones - are all connected. They make this beautiful

triad. You pull one, you pull the other. So thyroid issues, we start to see more depression and anxiety.

Alison Danby: 32:29 How are you going to feel if you're not sleeping? If you're buzzing all day, you're going to start to feel exhausted, tired, depressed, possibly more worried because you're so wired. Your central system is still up there, but you can only, you can't come down. We start to see low blood pressure. So it's this wired, but low blood pressure. Dizzy when standing is a big symptom here, we start to see a drop in blood sugar. This is where a lot of people start to get more hangry. We see a lot of hangry. This is because a lot of people here are having that adrenal or that cortisol boost. And here we're getting to the point where we can't boost the cortisol as well, or we're getting flash boosts, and then a drop. We see insomnia. We start to see pain and we're seeing digestive changes at this point.

Alison Danby: 33:15 This here is where we're in that step with the mitochondria, we're in no resolution. And then we get to the complete mitochondrial dysfunction. So not only are we at adrenal fatigue, extreme adrenal fatigue, we're in the survival freeze. And this is where we get stuck. We see chronic disease, very slow wound healing, a lot of inflammation. We start to see cognitive decline. We see chronic fatigue, hormone issues, immune issues. So we start to see the whole system shutting down, because guess what, it wants to reset. It wants to repair. Things are so far out of balance that the body just doesn't know what to do. So this is where we have to start into and think, how do we fix this? So most people, when full-blown autoimmune diagnosis are here, some are coming in here. This is kind of an early diagnosis, but this for a lot of people, isn't that late diagnosis.

Alison Danby: 34:14 Where are you in this stage? So find yourself in the stage, take a minute. If you need to pause this, you can pause it and find where are you in the stage? Part of it is knowing where you are so you can work backwards. Okay? So let's dive into how do we fix this? So the first thing is there are tons of mitochondria support. So you will notice that this is not the first thing on my list. And I want to point this out because supporting the mitochondria is great. And I think it's beneficial. But if you haven't removed the trigger, you're just going to be supporting it forever and ever, and ever because you haven't addressed the underlying cause. So you need to investigate what is causing. Do you have any infections? Do you have a lot of mental stress? This is actually, I've actually just developed a course that this was the missing piece of my practice for so long.

Alison Danby: 35:10 I know I'm working with people, one-on-one working through a lot of their traumas and their sabotage techniques, the mental,

emotional aspect of the autoimmune picture, because this is why people weren't getting better. They were doing the diets, they were doing all the testing. They were doing so many things, but they weren't addressing this. They weren't allowing the body to come down because we know that acute traumas, we know that childhood traumas, acute traumas, any kind of trauma can impact and be a big trigger for mitochondrial. Toxins, clean up the diet. We're going to talk about this and food. So we need to remove the trigger, identify what your trigger is and remove it. Then we can support the mitochondria to help it rebuild a lot quicker. And we're going to be talking about this lots of clean veggies, fruits, organic, no chemicals, good protein.

Alison Danby: 35:59 We need the protein. We want to reduce the chemical load. Now with autoimmune I'm very particular not to do this at the beginning. So we do not do any lymphatic support until you have done these things until you are starting to feel better. Because if we do too much lymphatic support, what happens is you actually feel like garbage. So there's a time and place. You need to support the body first. And then you can go into that state. So what I love is movement. Walking, walking in nature is amazing. You're moving your muscles. You're getting things going. Whether you start with one quick little, 10 minute walk, cause that's all you can do. Or you go for half an hour every day. Start building that up to me. This is the most important thing that you can do for your body. Sauna. I love my sauna blanket.

Alison Danby: 36:47 I have a sauna blanket. I don't have a sauna because it's just easier to fold up, I can put it in a closet. Love it, love it, love it. Water, water, flush, flush, flush. Sweating is so important with this. We need to get sweating. So when we look at this, just getting to the cause of what is, what is the problem? Remove the triggers, support the mitochondria, clean diet. If you are not someone who understands or knows about the clean 15, google it. Clean 15 foods, it's 15 foods that you do not need to buy organic. The dirty dozen is the ones you buy organic, even washing your foods with a proper wash. I use apple cider vinegar or vinegar and baking soda in my sink. A lot of the times you can buy different scrubs. They're great for cleaning off the chemicals, but this is so important for mitochondria is reducing the chemical load and then just really making sure that you are supporting and moving the body.

Alison Danby: 37:49 Okay. So this is one of the things that I use a lot with a lot of my clients. I use it myself. This is my adapted version. This is modified from mitochondria tools. I love this smoothie and this is my mitochondria green smoothie. So it's all organic. A hundred percent of it is organic. It's two cups of coconut, one cup of ice, one teaspoon of matcha green tea powder. That's

optional. I love it because the green tea powder actually has benefits with l-theanine and it helps with great, it reduces inflammation. One to two tablespoons of cinnamon, if you enjoy cinnamon one or sorry, half a frozen banana, you don't want a lot of banana in there because really, really sweet, half an avocado, one cup of spinach or kale and half a teaspoon, algae or kelp. That's optional as well. I sometimes do it a lot of the times...

Alison Danby: 38:50 I don't actually add that in. Just depends on what I feel like eating that day and how I feel like having it taste. Sometimes I add blueberries to it. So you can adapt this to how you like. But really it's figuring out the triggers, organic clean foods, getting your sleep, just making sure, ruling out other fatigue, but just getting back to the basics, will get you there. It's amazing how complicated we think healing is. But really getting back to the basics is one of the main things. So thank you so much for joining me. We had, I hope you found benefit from this. And I would love for you to download the top 10 autoimmune labs that I have. Check out my podcast, Autoimmune Simplified, where we dive into anything to do with autoimmune and we have tons of inspirational stories on there, and I will see you later. Take care. Thanks for joining me. Bye.