Introduction to Benzodiazepines and Dementia

Welcome to this episode of the Reverse Alzheimer's Summit. I'm your host, Dr. Heather Sanderson, and I'm excited to dig in to this really important topic with Trudy Scott today.

She is the food and mood expert and she's also a certified nutritionist who educates anxious individuals about nutritional solutions for anxiety. She's well known for her expertise's in the use of targeted individual amino acids and other nutritional solutions for the social anxiety condition called polynya and the harmful effects of benzodiazepines.

Today, we're going to connect the dots between benzodiazepines or anti-anxiety medications and dementia. Trudy, welcome to the show. Thanks so much for having me. Dr.

Sanderson, it's a real pleasure to be here today. Thank you. Thank you. So, you know, you are one of the few people I feel like who's not afraid to dove into the science around how harmful some of these medications can be for our brain.

So can you tell us first about the work you do and a little bit about what we'll be covering today in terms of GABA and amino acids and then their relationship to the use of medications like benzodiazepines?

Yes. So I am really, really passionate about this topic because I had my own anxiety in my late thirties. I started to get increasingly anxious and I had panic attacks and social anxiety.

And I discovered this very powerful connection between what you eat and specific deficiencies and also toxins and a whole host of other. I had this perfect storm of gluten issues and heavy metals and hormone imbalances because I was going into perimenopause.

But End of the story was I discovered the amino acids. GABA was amazing for me. Tryptophan for serotonin support was also fabulous and addressed all these underlying causes.

And eventually my anxiety and panic attacks went away. And now my mission is to share this information because the amino acids, which we'll talk about today in the context of anxiety that we see in Alzheimer's, and then also a specific type of anxiety called sundowning syndrome and how these amino acids can be very, very powerful.

As you know, anxiety is very common in Alzheimer's. And some of the papers actually talk about anxiety being a prelude to Alzheimer's. And as you would probably agree with me, is that we've got similar underlying causes that are contributing to the anxiety and contributing to the Alzheimer's or dementia.

You know, I describe some of the root causes that that I experience. And these are common root causes that affect, you know, so many different conditions.

It doesn't really matter what the diagnosis is.

Trudy Scottu2019s Anxiety Recovery and Amino Acids

If you've got that those underlying triggers, they can cause Alzheimer's, they can cause anxiety with that Alzheimer's. They can contribute to autism.

They can contribute to, you know, other neurodegenerative diseases. So we've got to look for the root causes. But then there are these nutrients that we can use that can alleviate some of the symptoms while we addressing some of those underlying root causes.

Now, unfortunately, in the population that I work with, which is mostly women and 30 and above long term use of benzodiazepines is very common. And it's very concerning to me because of the impacts.

Firstly, the short term impacts which we'll talk about a little bit later, but also the long term impacts when it comes to Alzheimer's and dementia. So I'm excited to talk in and talk about these topics.

So dementia, Alzheimer's and anxiety, also depression. They come together very frequently and sometimes what we see is that people start to lose their short term memory, lose their memory, and then they're depressed because they kind of see this path forward as being so hopeless.

But also on the flip side, people who experience depression and anxiety earlier, earlier in life are at risk for dementia. And I think many of us feel that experience.

We can relate to that experience of being anxious, overwhelmed and feeling like our brains don't work. Stagefright is a classic example of that, of this, and more and more often, especially in the last ten, 15, 20 years, we see that it's easy to just go to a doctor and get a prescription for a benzodiazepine.

Will you share what those medications are, what we commonly hear them called? And you may not even realize that you've been prescribed a benzodiazepine because they're just that common.

Yes, I'd love to. I want to just start with the prevalence of anxiety and Alzheimer's disease, because you've you've given us a nice summary there. But it's it's 40% of of those with Alzheimer's disease can have anxiety.

And you talked about being depressed because you've got this diagnosis. But there's the biochemical aspect of it as well. So we've got the concern about the future, but then also we've got this underlying biochemical aspect and they they are there's a lot of literature on depression, as you mentioned, and Alzheimer's, but there's less literature on the prevalence of anxiety.

And it's it's as you say, it's is really, really common. And they that concern also is that they and this particular paper that I pulled that I want you to mention, it's called a relationship between anxiety and Alzheimer's Disease.

They talk about the fact that they the anxiety can actually make the dementia symptoms worse. So that's a problem. The other problem is they add the that the approach that is documented and as you said, people go to the doctor, their approach is psychological support, behavioral management.

And and I don't like this term the judicious use of psychiatric armamentarium, of medications. So all they're talking about is therapy and medication.

And they don't talk about the amino acids, which which are very powerful, as I'll share in a second. So to your question about the benzodiazepine, and for anyone who doesn't know what they are, they are anti-anxiety medications that are prescribed for anxiety and panic attacks, also prescribed for pain, insomnia.

And I'll just share a few of the common names that people may be familiar with Ativan, Valium, Xanax, Klonopin, and they are meant to be used short term.

So short term means two weeks. They're short term intervention for a critical situation. Unfortunately, they're used for many, many years and we have issues with dependance meaning more and more is needed at sorry dependance meaning that you can't live without them.

Tolerance, meaning more and more is needed and then withdrawal symptoms. And I'll just say a short what I call a horror story from someone in my community who'd been on benzodiazepines for many, many years.

And she had actually tapered from the medication and she'd been off the medications for about 17 months. And she's these are the symptoms that she's still experiencing locked shoulder muscles, internal vibrations, headaches, jelly legs, distorted vision, floaters, feeling like my teeth are going to fall out, feeling like I've got this adrenaline or

cortisol surge.

My arms go and I'm pretty tortured every day. And she she'd been on four different benzodiazepines over the years. She'd been on Ambien and antidepressants, and she was initially prescribed the benzodiazepine for dizziness.

Benzodiazepine Risks, Withdrawal, and Tapering

So, you know, it can be as something as simple as dizziness, and then you can end up with all of these issues. So I'm just sharing this just for folks to get a feel for how serious the benzodiazepines can be outside of Alzheimer's.

And unfortunately, a lot of doctors are not aware that these medications need to be tapered. Really, really, really slowly. And when I say slowly, I'm talking about years in some cases.

And I do want to just say for anyone who's listening now and hearing this and if you are on a benzo, don't Stephanie, don't stop cold turkey because, you know, some people think, oh, my gosh, I need to get off this medication.

They do need to be tapered really, really slowly. And as a nutritionist, I don't advise people in terms of quitting their medications. I'm always working in conjunction with their doctor.

So I just wanted to, you know, lay the groundwork for generally speaking and the concerns with benzodiazepines. But I'd I'd like to just share a little bit about a study that I pulled about the risk of dementia in long term benzodiazepine users.

But I just wanted to pause and see if you had any questions about what I just talked about. No more validation, really. I have a patient who similar to someone in the person that you show in your community.

She is eight months out from her last dose of benzos and still suffering from pretty extreme symptoms of withdrawal and was started on benzodiazepines for anxiety associated with mild exposure.

And it turned out that her the benzo withdrawal has actually and even been on the benzos she had more symptoms from that itself than from the mold exposure and mild symptoms.

And so it really created this bigger problem than she had going into getting those medications that she was feeling desperate and needed relief. And that was, you know, a well intentioned provider started her on that.

So now I just appreciate you sharing that and also, you know, reminding people that this is not something you can stop cold turkey. There's basically just a couple of things that can kill you stopping cold turkey and it's alcohol and benzos.

So please do not do that, but get really good support from your from a trusted provider. There are people who specialize in this in just getting people off of benzodiazepines.

And so find someone who you can trust and who you can work very closely with to go through that process. Thank you for sharing that. And yes, that's a common a common issue that I'm seeing all the time.

So thanks for sharing that. And unfortunately, you know, she was desperate and that's that situation a lot of people are in. They're desperate and they don't know about these alternatives.

And I've had amazing success with clients who are dealing with mold anxiety. You know, anxiety increased because of the toxicity and GABA, which we'll talk about a little bit later, is amazing for addressing that, that anxiety.

While you are dealing with a home, a mediation and getting rid of, you know, the toxic exposure that you that is

causing these symptoms and everything else that's going on.

So really important to be aware that they are these alternatives. And then just to go to your point about tapering and what I find is very beneficial for for my clients who tapering is to get as nutritionally stable as possible before you start to taper.

So that means addressing if you've got gluten issues, healing the gut, addressing your adrenals, using the amino acids like Gabo and everything else, it just makes it so much easier.

But because you've got all that nutritional support as well and tastic. So go ahead. Now I was going to talk about the dementia and and long term benzodiazepine use.

Is yeah the risks associated please. Yeah. So this was a meta analysis and it was ten studies and it's a very recent study and I will just say that the first statement that they talk about in the paper that that papers called the risk of loss of dementia in long term benzodiazepine users.

And their first statement is what I have found as I've gone through individual studies, that there is conflicting evidence in the literature on the association between benzodiazepines and the risk of dementia.

And I've looked and looked at various different papers, and it's often the the authors of the paper may there may be a conflict of interest. So there's that aspect and then it may just be, you know, the fact that we have this biochemical individuality and not everyone is going to be affected.

You know, we talked about how harmful that benzodiazepines are outside of Alzheimer's. There's a third of people who manage to quit their benzos much more easily than another two thirds.

And of that two thirds, you have a harder time. One third of them have a really, really hard time, and the other not so bad. So there is this biochemical individuality that we see certainly tapering off benzos.

So the fact that for some people it's going to increase dementia does make a lot of sense. But this paper was looking to see if there was a relationship and they concluded that benzodiazepines significantly increase the risk of dementia in the elderly population.

And what was interesting with this paper is they found that using benzodiazepines for longer duration, greater than three years, was more problematic.

And then they also found a specific benzodiazepines with a longer half life of greater than 20 years were more problematic. It's good that they identified that, but I've seen in some papers where it can be across the board different.

You know, it doesn't necessarily mean that benzodiazepines at a longer half life. The other issue that we see outside of dementia is that benzodiazepines increase the risk of falls.

So if we are using benzodiazepines in an older population, there's a higher risk of falls, which is obviously not a good thing in terms of, you know, hip fractures and things like that.

So we've established that it's harmful to have anxiety and a lot of anxiety and to not get sleep right is also harmful for the brain. And yet the kind of first and the first thing that a medical doctor will often pull out of their tool belt to treat both insomnia and anxiety is a benzodiazepine.

And we have established the risk associated with those, both in terms of falls and also in terms of predisposing people towards dementia if they're on them long term.

And also there is those treated with amnesia.

Dementia Risk and Long-Term Benzo Use

You don't forget, you don't remember what happened. So it's not always. But you're actually getting better sleep. It's that you just don't remember that you got terrible sleep when you take an Ambien or something like that.

So they don't work that well. They come with risk. But we still need to do something about the anxiety. So tell us what to do. So I want to just talk about a specific type of anxiety that we see in Alzheimer's.

It's called sundowning. It's an Alzheimer's and dementia. And this I will just say that what I that's the work that I do with people with anxiety is the first thing I do is start with the amino acids because we get quick results.

So if you've got low gabby, you will have the physical type of anxiety where you've got tension in your neck, you'll have different tense muscles and we use GABA, the amino acid GABA, to help relieve those symptoms.

Then if you've got the low serotonin kind of anxiety, you'll have the worry, the ruminating, the reprocessing. Well, so you'll have insomnia with both of those.

And then the amino acid that I use in that case is tryptophan or five HDP. And we'll talk a little bit more about those in a second. So that's that's where I start with everyone that I work with.

My focus and my practice is anxiety. So everyone who comes to see me does have anxiety. And that's what we do. We use the amino acids for quick relief.

When I say quick relief, we get results within 5 minutes. We use amino acid sublingual and we'll feel someone will be able to report back. Yes, my anxiety went from a ten out of ten to lack of or five out of ten, or maybe even a seven out of ten that we know we need to increase the dose.

So it's very individualized dosing of the amino acids and using a symptoms questionnaire to determine and which which one we're going to use and often will use both people often have low GABA and low serotonin.

So let's just I just wanted to set the stage there. So let me just talk about Sundowning Syndrome and I, I haven't seen any literature that connects it to specifically using this nurse literature on the mean using amino acids in sundowning Syndrome.

But as I described Sundowning Syndrome, you'll see that there's a lot of these overlapping symptoms that we have with low GABA and low serotonin. So I'll just read this definition from a case study that was published, and it's that the term sundown syndrome or sundowning are used to describe a wide range of neuropsychiatric symptoms occurring in individuals with dementia in the late afternoon, evening or nights.

These symptoms include confusion, restlessness, anxiety, agitation, aggression, pacing, wandering, screaming, yelling and hallucinations. The treatment of sudden down syndrome is challenging and pharmacological therapies are not particularly effective.

So they again, we've got the fact that there isn't really medication that can help. As soon as I read a description like this, I immediately think, okay, is there is there a role for serotonin or gave a support?

So when I hear anxiety, restlessness, anxiety, agitation, aggression, yelling, those are all classic low serotonin syndrome centered. So now I'm thinking, okay, let's consider tryptophan for addressing some of these symptoms.

And then when I was looking into this, I dug a little bit deeper and we'll talk about the role of GABA as well. So these are all classic low serotonin.

And that what I didn't mention earlier is that low serotonin symptoms beget get worse later in the afternoon and evening. So that's when we typically use tryptophan because the as the serotonin dips towards the end of the day, that's when symptoms get worse.

And as you heard in this, the sundowning syndrome is happening late afternoon and evening. That's what's called sundowning syndrome. And I'm sure there are lots and lots of listeners right now who can fully relate to that description, who have experienced it, have have loved ones who have experienced it, maybe their parent, who is no longer with us, they remember going through that torture and trauma.

And many of them may also add that it doesn't just happen in the afternoon. Sometimes it happens in the middle of the night and in the morning and all hours of the day.

It's kind of like morning sickness for pregnant women until you have it and you're like, no, it doesn't just happen in the morning and it happens all day long.

So thank you for describing that. And I think many of you who are listening, they're like, okay, I'm in the right place.

Sundowning, Tryptophan, and Melatonin

Tell me how we can get some relief, especially in a way that's effective because as you mentioned, the pharmaceuticals are not particularly effective and things like Seroquel activate antipsychotics, they get used often for that.

They create this sort of numbing like where the person is just gone. They have this sort of glazed over look. And if there's a way to avoid that and create some more peace and harmony and not have this awful sundowning experience for both the patient and for the person caring for them, that would just be a miracle.

Yes. And, you know, there is an amino acid that that is a miracle. It really is. And when I talk about it and I saw your face when I said, you know, you get results so quickly, people can't actually believe it's as good as it is, but it really is because you get those you get quick results and it's it's it addresses all of these symptoms.

So with low serotonin, I'll just recap the symptoms. It's a it's the mental worry anxiety. And that's hard when you're working with someone with dementia and Alzheimer's to actually know is it mental or physical.

So with with you during the trial of the amino acid, in this case with tryptophan, you're going to need to see what kind of how happy, how they react.

And you'll you know, you've firstly, you've got to have the confidence in using it with your your parent or at a loved one who's dealing with these symptoms.

And and I find that, you know, because I'm working mostly with women with anxiety, they have used amino acids in cells. They feel confident and then they they use it with their mother or their father, whoever they they helping or you, as you said earlier, you've got to work with a practitioner who's going to help guide you here.

But you look at the symptoms and you see you could give them a rating. You know, how how bad is anxiety? It's a nine out of ten. And how restless are they?

How much aggression? Often there's this anger and agitation and the the the, you know, the the the person who's the caretaker will say they're not like this.

This is not them. You know, this is so atypical. This is just not the kind of person they are. And then I'm suddenly seeing this really, really different person.

So rate the aggression and then take take note of when it happens. Is it happening in the afternoon, evening? And that's going to be a clue that it could be related to serotonin.

And then we use the amino acid tryptophan or five htp. Now I like to start with tryptophan. Typical starting dose is 500 milligrams for an adult for for an older population.

I would even start with half that just to be safe and just see what kind of response you're going to get if you and the other thing that we see with the sundowning is, is being awake in the middle of the night.

This can help with sleep as well. That's a classic low serotonin symptom. And then if you are seeing, yes, the agitation, the anger, the insomnia is improved a little bit, then we increase the dose until we find the ideal dose for that person.

Five HTP is another option. Some people do better on tryptophan, some do better on five HTP. The starting dose for five is 50 milligrams. I would also start with half that and and then see how the person does.

Now that I wanted to just mention that that description that I took shared about Sundowning Syndrome actually came from a study that was published about melatonin.

And that paper was called Melatonin for sun down syndrome and delirium and dementia is at affective. And it was an 81 year old man with Alzheimer's. He had behavioral disturbances, sleep disorder and wandering.

And the this doctor prescribed two milligrams of melatonin at 8 p.m.. His sleep quality improved within a week, improvement in his behavior within 2 hours of taking the melatonin.

And then they gave him additional two milligrams of melatonin and his symptoms gradually improved over the next two weeks. And there were no behavioral changes.

And a two month follow up and I'm sharing this because tryptophan is used to make melatonin. So I would typically start with tryptophan or five htp. And then if we still need help specifically with NGS, with sleep ed in the melatonin.

But as you can see from this case study, the melatonin also helped the behavioral symptoms and the sundowning syndrome. So it's it's amazing to think that something as simple as tryptophan or five htp or melatonin or a combination of those can have such a big impact.

And I know that Dr. Dale Bredesen reports using melatonin and tryptophan for sleep issues in Alzheimer's. I haven't actually heard him talk about sundowning.

Does he talk about sundowning syndrome? I think he's very familiar with it. I don't know that he's as in touch with it. You know, certainly with Marama, with us having the residential care facility, I see a ton of it because people are with us 24 hours a day.

But I don't I don't know that he specifically has any suggestions for that other than he he definitely cautions people around the Seroquel and the benzodiazepines.

Okay, great. Yeah. Because I looked in his papers and I looked in his book and I couldn't see the word sundowning. But he's you know, he's mentioning all the symptoms.

But yeah. So anyway, that's that's great. And, you know, everyone knows how amazing Dr. Bredesen is. So if you are feeling concerned that there is not a lot of, you know, research published about using tryptophan or even using melatonin, you know, just feel comfortable that it is being used clinically.

And sometimes you've got to make these extrapolations until we have as a study, you know, looking at sundowning in dementia and using tryptophan. So, yeah, it's just, you know, it's.

So nice that we're using something safe now. Do you caution people if they're taking an SSRI or do you worry about serotonin syndrome with adding these supplements?

So there is a theoretical concern with serotonin syndrome. And for anyone who doesn't know what that is, it just means taking too many medication and a nutrient that is going to raise serotonin and it's is life threatening.

And I always because I'm a nutritionist, I'll have someone if that you know, if their parent or they are using an SSRI serotonin, select a reuptake inhibitor and let their physician know that prescribing physician know that they want to use tryptophan or five htp and then I have them use it 6 hours apart.

So often they'll be using the antidepressant in the evening and now we want to use tryptophan or or five htp in the evening because that's when it's most effective.

Switch the antidepressant to the morning with the doctor's approval and then use in 6 hours apart. Now that's a very cautious way of using the the with with antidepressants.

I won't use I won't recommend using tryptophan or firebase if someone's on multiple antidepressants, only if they're on one. And then the doctor's given the approval.

But I will share it up to Sanderson that there is no research showing that combining tryptophan or five HDP with an antidepressant causes serotonin syndrome.

And there's actually a few papers where it was I think there are two papers where they were actually at a studying SSRI and they added in tryptophan and they added in five HTP to make it more effective.

So they are used at the same time. But we just want to err on the side of caution and I know, you know, I'm all about empowering my clients and a lot of people read my book and they, they get stuck into the amino acids in the dietary changes on the, you know, on their own.

So I just like to have that precaution as well for people who are going to just try and do it on their own. I love it. Okay. And then GABA is this other amino acid that's very powerful.

How do you recommend people use that? So as I mentioned earlier, with low serotonin, it's the worry, the ruminating, the mental obsessing kind of behaviors.

With Gabby, it's physical. So they'll feel it in their neck. They'll feel stiff, intense muscles with certainly with mar population. If you've got low gabby kind of anxiety, you'll be drawn to stress eating or you'll use alcohol in order to relax, to wind down at the end of the day.

And Gabby, the amino acid gabby gamma aminobutyric asset can be used to raise GABA levels and certainly there is a role for Gabby in Alzheimer's disease.

Using GABA for Anxiety and Caregiver Support

This paper called Implications of Gabaergic Neurotransmission and Alzheimer's Disease, talks about glutamine and GABA and how these have this balancing effect.

Glutamine is excitatory GABA is calming inhibitory, and they're they talk about that there's abundant data implicating this GABA glutamine balance in disease progression.

So we know that there is a role for GABA in Alzheimer's disease. There are no studies using GABA in Alzheimer's or domain. Sure. And that's just the nature of the game, is fewer studies on these amino acids, unfortunately.

But we know that GABA helps with anxiety, it helps with disturbed sleep, helps with restlessness, helps us stop and tense muscles. So if you've got a loved one or you're caring for someone with Alzheimer's and they're not sleeping well, it could be low serotonin and need for tryptophan or five htp or melatonin, but they could also be a low Gerber component, and they often is.

So we would use we would look at those symptoms like we talked about earlier and rate them. And when if we're doing a trial of both serotonin support and a support, it's best to do one at a time.

Then you're going to know what the effects are. So if you choose to support certain end with tryptophan first and find a baseline rate, symptoms improve until you're getting some resolution, maybe you still got some agitation or maybe you still got some sleep issues with the person.

Then you would say, okay, now I'm going to try some GABA and see if that's going to work. You could choose to stop the serotonin support if you wanted to and just do the gabr on its own.

That's fine as well. But usually when we've made some gains, we don't want to stop what we've already done. We want to layer on the additional support.

And the other thing that we sometimes see with with GABA support is it helps with stress eating. So if if your loved one is, is binging on carbs and the low serotonin can be affected and so can the lower GABA.

So we want to watch that as well. And then you'd mentioned, you know, how much sundowning you see in in your community and you know how common it is. I actually had a woman in my community share about how Gabby helped her mom and she was someone who had her own anxiety and had figured out how to use Gabba and Gable was helping her, so she felt comfortable trying this with her mom and that I'll just go ahead and share this.

New moms 98. She said she'd been sundowning for a couple of years, and this was someone who actually commented on my blog and then I did a whole new blog post about it.

She said It starts around 3 p.m., sometimes earlier, some days it's no big deal, but it's on those other days when she starts and then she goes into anxiety, agitation, and she can sort of get defined, which is not her.

I remember I said that, you know, you don't recognize the person because this biochemistry is is hijacking their brain, so to speak. She said she's a gentle, soul, friendly and and kind.

So this is difficult on her as well as our family. So it's it's difficult for the person who's going through this as well. So she felt comfortable at using her pestle and mortar to crash at 125 milligrams of GABA calm supplement.

This is an over-the-counter GABA product that I use with a lot of my clients and she makes it into flavored yogurt when she starts to seeing her hair, seeing I have difficulty, I give it to her throughout the day.

So she's only getting 125 milligrams of GABA. It's a really, really low dose and this is what I typically start. My clients on 125 milligrams a few times a day.

What her mom was getting was just 125 milligrams for the whole day. And she says, I believe I do notice at lessens her anxiety and I hope this is going to continue to be helpful because it really is draining.

Now, I actually responded to her and I said, this is great that she's seeing these results consider increasing to see if you're going to get even more results.

And I also mentioned the serotonin connection because it was happening in the afternoon evening. So this woman may have also benefited from serotonin support, but it's just very, you know, very encouraging and heartwarming to hear that something as simple as a little bit of GABA can make a difference.

And, you know, sleeping better as she did mix it into her yogurt. We typically like to use the amino acids away from protein, so you're going to get better effects.

But using it crashed and also a powder. Sublingual is the most effective way to use the amino acids. A lot of people will actually say GABA doesn't work.

It doesn't cross the blood brain barrier. It's it's a waste of time. And I actually interviewed Dr. Karas in on one of my anxiety summers and talked about that specific topic because he's the one who came up with a gave a challenge to say, take a lot of GABA and see what kind of reaction you get.

And it'll give you an indication as to whether you have a leaky blood brain barrier. And he said it was just a theory, so we don't have any evidence to support it.

I would never have someone take a really high dose to start. It's just too much. And that's 125 milligrams. Sublingual away from protein is the way to start with GABA and then increase from there and see what kind of reactions you get.

I noticed that you mentioned glutamate and GABA and kind of that teeter totter of excitatory and inhibitory neurotransmitters and glutamine is something that I use commonly in my practice to help people with leaky gut.

And I feel I get the sense that some patients get more of an excitatory response and other patients get more of that inhibitory common response from it.

Do you have a sense of what makes the difference and who gets wired it and what's going on there? Is it and zinc and B6 and magnesium can help us make that conversion.

Is that is it cofactors or what's going on there? So I get the exact same response. So I'm always fried. We use glutamine and I tell people some of it can convert to GABA and B calming.

And of course we know it helps with blood sugar stability as well. So it's giving you that calming benefit as well. And then it's healing the gut. So it's it's you getting all of those benefits.

But there are some people where it can be it can convert to glutamate and be a little bit excitatory. So I just warn people that. And then so that's always been what I've done.

And then if it is to excite, you know, excitatory, then we, we stop having them use it and we use something else if we're using it for leaky gut. And I've, I don't have any conclusive evidence, but I think it's got to do with one of the GI polymorphisms and I think it's GAD 67 polymorphism.

And if you if those if that is expressing it, it may go down a different pathway and be more excitatory. I have had some people talk about the fact that GABA can actually do that as well and convert back to glutamate.

Glutamate And I've seen no evidence in the research to support that. And I think when people together and they get more anxious or they get agitated, it's because they're taking too high a dose.

So you'll see, you know, most GABA supplements will say take two capsules a day and it's a 500 milligram capsule or 750 milligram capsule. That's way too much.

So I always start low and then and increase from there. But that is so helpful and so specific. I mean, these are just such practical tips that can, I think, bring many people a lot of relief, not just the person suffering with Alzheimer's, but also the care partner who is under a ton of stress and may be also struggling with sleep, also struggling with mood, because it's just an inherently stressful situation.

And so I think these tools are so powerful for the person struggling with Alzheimer's, but also for that care partner. So just find more joy in the privilege of being able to care for a loved one.

You know, there's so much potential to so many care partners. They they say that when they get to the end of it, you know, when it's over, they wouldn't give it up for anything.

They're so grateful for that that opportunity to care for their parent or their spouse. And yet the day to day can be really hard. And so finding these tools that make it a little easier, a little bit more joyful, a little bit less painful, it's just a huge, huge value.

I'm so glad you mentioned that because it is it is physically demanding. And and if you can be in a good space in terms of having enough gab levels, having enough serotonin and being able to sleep well, and because your sleep

is going to be disrupted to, feel calmer, you feel less overwhelmed because there's a lot going on while you are caring for someone.

So and that amino acids are amazing and in with adrenal support, obviously it could be complex and adrenal support and just taking care of yourself at the same time.

I think it's so important. I am so glad you mentioned that. Trudy, it's an absolute pleasure to talk with you. You're so well informed and well-researched and you clearly have a ton of experience in this space.

I want to make sure that our listeners and audience members here know how to get a hold of you. Find out more about your courses, your book and everything that you have to offer.

Thanks. But to send us and say my book, The Anti-anxiety Food Solution, discusses the amino acids in detail throughout the book. There's a whole chapter on the amino acids.

And as I said earlier, a lot of people pick it up and run with it for others if they need feeding, they need guidance. I have online programs where all people through how to use GABA and how to use the other amino acids.

I also have practitioner training where I teach practitioners how to use the amino acids in their community. And then my blog is very active. I get as I said, this woman shared her her success with her mom.

The blogs very active and I get a lot of comments and questions and I get to learn from my community. It's amazing. I learned so much from the questions they ask and the stories they share.

So I've got a very active community and I'd love to, you know, have folks who resonate with this to join and learn more. Oh, fantastic. Well, thank you.

I can just say, from my personal experience, it's very calming to talk to you. Thank you so much. Absolute pleasure joining you. And I look forward to hearing the other interview and learning from the other experts and sharing this with my community because it's so needed.

So thank you for doing Chili. It's been an absolute pleasure having you. Thank you so much for joining us.