

as heard on

The Anxiety Summit Season 1

How Zinc and Vitamin B6 Prevent Pyroluria and Social Anxiety



by **Trudy Scott, CN**

host of *The Anxiety Summit*, Nutritionist and Food Mood expert,
author of *The Antianxiety Food Solution*

How Zinc and Vitamin B6 Prevent Pyroluria and Social Anxiety

- The history of pyroluria and Carl Pfeiffer's work with schizophrenic patients
- The symptoms of pyroluria and the relationship to anxious introverts
- How to assess for pyroluria: the questionnaire and lab tests
- Nutrients for pyroluria: forms and tips to enhance absorption



Trudy Scott:

Welcome to The Anxiety Summit. I am Trudy Scott, Food Mood Expert, Certified Nutritionist and author of *The Antianxiety Food Solution*. Today, we have something a little bit different. I am actually going to be interviewed and the topic of my presentation is all about pyroluria. I have invited Dr. Corey Schuler to do the interview because he knows a lot about the subject and you're going to hear a little bit more later why he's very interested in this subject. I think you're going to enjoy the fact that you're going to be getting the perspectives of two practitioners who are familiar with the subject.

So I'm going to have Corey take over and start the interview process and I look forward to sharing all this great information with you.

Corey Schuler:

Great. Well, this is Corey and I am excited to be on this side of the mic. Let me introduce Trudy Scott, food mood expert. Trudy Scott is a certified nutritionist on a mission to educate and empower women worldwide about natural solutions for anxiety, stress and emotional eating. Trudy works with

women one-on-one and in groups, serving as a catalyst in bringing about life enhancing transformations that start with the healing powers of eating real whole food, using individually targeted supplementation and making simple lifestyle changes. She also presents nationally to nutrition and mental health professionals on food and mood, sharing all the recent research and how-to steps so they, too, can educate and empower their clients and patients.

Trudy is past president of the National Association of Nutrition Professionals. She was recipient of the 2012 Impact Award and currently serves as a Special Advisor to the Board of Directors. She is a member of Alliance for Addiction Solutions and Anxiety and Depression Association of America. Trudy is the author of *The Antianxiety Food Solution: How the Foods You Eat Can Help You Calm Your Anxious Mind, Improve Your Mood and End Cravings*. Welcome to your Summit, Trudy Scott.

Trudy Scott:

Thanks so much for doing this, Corey. I do just want to say that Corey is up next week. So make sure you listen to Corey's interview. I'll be sharing a few more reasons why later on in the interview, but it's quite interesting. I interviewed Corey and now he's interviewing me. Thank you for that, Corey. I just want to say that there was a slight change to my bio that didn't make it in and it's a new addition. I'm now an adjunct faculty member of Hawthorn University. So I just wanted to add that and I also currently serve on the Board of the Celiac Support Group. Both of these are new positions.

I do want to just say one more thing because as you heard in my bio, I said I work with women and I've had a few people contact me, who are listening to the Summit, saying, "I'm a guy. Does this stuff apply to me?" And absolutely, it does. It just happens that I work with women. I seem to attract women and I feel if I can change the life of a woman, a mom, a grandmother, a daughter, or whoever, she's going to help people in her life. So she's going to help her husband; she's going to help her partner; she's going to help her kids. So that's my focus. That's a yes, everything that we're talking about does work for men as well, and you are not being excluded.

I like to say I work with women and a few good men because there are a few men who seek out my services, but it's mostly the women, and then, they're helping their family members and their friends and whoever is around them. I just wanted to make that clarification.

Corey Schuler:

Well, I hope that I'm part of the few good men.

[Laughter]

Excellent. Thank you for adding those pieces of it because I think those are important to frame what you do. Congratulations on those new positions.

Hawthorn University is a great institution. So that's really cool. And we'll just jump right in.

This is just so exciting for me. This is like if you really follow politics and you got to interview the president, that's what this is like for me. So I'm putting this out there that, I'm like a giddy little kid right now.

Your talk about pyroluria has a more extensive title. We're calling it "How Zinc and Vitamin B6 Prevent Pyroluria and Social Anxiety." But we're going to talk about everything today. So I think we'd better get started. That's a weird word, the title of your talk; it's pyroluria. I probably pronounce it differently and we know little about it. Why don't you tell us a little bit about what pyroluria is?

Trudy Scott:

Certainly. I think it's great that you said the word "pyroluria" and what is it? Because there's many different words that you may find in the literature. If you go and do a Google search, you're going to find different terms and this is a condition that was initially discovered in the 1960s and it's been called high mauve or mauve. I say "mowv" because I'm South African. It's spelled M-A-U-V-E. It's also been called pyrrole disorder with two "r"s, P-Y-R-R-O-L-E disorder. And then pyrroluria with double "r"s, and then another spelling is pyroleuria, -L-E-U-R-I-A. It's also been called malvaria and even elevated kryptopyrroles. So there are many different terms that you will see out there.

For simplicity, certainly in my book and when I talk about it and in the questionnaire, you'll see the term "pyroluria," which is the title that we've got for this topic. Basically it's a genetic condition. There's faulty synthesis of heme - this is a component of hemoglobin. What it does is that it leads to elevated levels of kryptopyrroles, and we can call these KP. That's the term that we'll often see in the literature. There's been more recent literature where they actually say it's not the kryptopyrrole that is elevated; it's this other component called a HPL and I'll say it, but it's quite a mouthful: hydroxyhemopyrrolin-2-one. And this is the component that is actually elevated. What HPL does is it attaches to zinc and vitamin B6, which are then excreted in our urine and then we become deficient. And what it means is that people with pyroluria have a higher need for zinc and B6 - much higher than the average population. There are some other factors that play a role here.

Certainly, the omegas play a big role and we'll talk about that later on. But just to summarize, people with pyroluria tend not to need omega-3s as a supplement. They tend to need the omega-6 form of gamma-linolenic acid, but we'll go into that when we talk about some of the supplements that we need.

It's not commonly recognized in the medical profession and it's based on the work of Humphrey Osmond, Abram Hoffer, and then the amazing Carl Pfeiffer. They did a lot of work with schizophrenic patients in the 1960s and '70s.

Corey Schuler: I'm glad you mentioned the leaders in the world of integrative medicine. They were doing integrative medicine before integrative medicine was cool and schizophrenia being probably the most difficult they used to treat medically. Abram Hoffer was really on the front lines of that, looking at different nutrients and he got his degree here in Minnesota. So I got to pay some respect to Dr. Hoffer and Carl Pfeiffer in Chicagoland area, and he's had some folks carry on his work, too. So that's really great.

I wanted to mention, if you don't mind, just something that I think listeners might want a little bit more clarity on. It's like, well, why are we spilling all this pyrrole? Why are we spilling the heme? And I just want to give some context to that. Heme, hemoglobin carries our oxygen to our tissues. And so what it has to do, it has to get everywhere. And it's kind of a big-looking molecule with these four edges on it, and whenever it has to fit in these little capillaries and it gets banged up, this is really the whole role of it.

So everybody, whether you have pyroluria or not, we get rid of some of these pyrroles, these rings from the hemoglobin. Everybody does it. It's just that the folks with pyrrole disorder or pyroluria spill it faster and more extensively. So I think that maybe helps those of us who aren't ingrained in the hematology the way you might be.

Trudy Scott: With you being a doctor, that's great that you made that clarification. Were you going to say more about that? Because I wanted to say something about Abram Hoffer and Carl Pfeiffer after you've finished.

Corey Schuler: No, please tell me.

Trudy Scott: Okay. Firstly, I didn't know that he was in Minnesota. So that's cool to know and I wanted to also mention Carl Pfeiffer's amazing book. If you are into this as Corey and I are, you will want to read his book *Nutrition and Mental Illness*. It was published in 1987 and it's amazing. These guys were amazing with the work that they were doing and how forward thinking they were. And then another really great book is a book called *Natural Healing for Schizophrenia and Other Common Mental Disorders* written by Eva Edelman. And it's got a lot of information.

The other book is *Depression-Free, Naturally* by Joan Matthews Larson. I would consider her an authority on pyroluria and I had invited her to speak on the Summit. She wasn't able to make it, but I'm planning the next Summit for November and hopefully, we'll have her talking about it because she is very

much into this topic and knows a lot about it. I believe she actually has pyroluria herself.

Corey Schuler: And she's from Minnesota. Look at us. It's like full circle. The web is so entertaining. I want to give a little fair warning, too, if you're going to read those books, just know that the Edelman books, they're very good. I think they're really well done. They're a little bit complex and it's easy to be overwhelmed when you're reading her book. So just be okay with it. Give yourself some credit and some patience while you go through her text.

Trudy Scott: That's a good point because it's a lot of information and also the fact that the title is *Schizophrenia*, we think of pyroluria as being on this continuum of schizophrenia. So don't be confused by the title. But I'm glad that you made that clarification because there's a lot in there and a good starting point would be the chapter in my book on pyroluria and then also Joan Matthews Larson has a whole chapter on pyroluria in her book. And then, of course, everything that you're going to hear today.

Corey Schuler: I don't think we're going to get any other time so I'll just ask it now. I just want to make a clarification. If I'm wrong, please tell me. Just because you have pyroluria doesn't mean you're going to have or you have schizophrenia; and if you have schizophrenia, it doesn't necessarily mean that you have pyroluria. Did I have that right?

Trudy Scott: Can you ask it again?

Corey Schuler: Yeah. If you have pyroluria, that doesn't necessarily mean that you have schizophrenia or you're going to have it; and vice versa if you have schizophrenia, it doesn't necessarily mean you have pyrole disorder.

Trudy Scott: I would agree with the first part: if you've got pyroluria, you're not going to get schizophrenia. But I don't know about the second part because I believe that a lot of people with schizophrenia have social anxiety symptoms, which are the symptoms that we see with pyroluria. So I do believe there's a lot of overlap.

Corey Schuler: Okay. Great. And I think we'll talk about overlaps as we go. So we better keep going. I understand, Trudy, that you have pyroluria yourself. And how did you figure out that you had it?

Trudy Scott: So yes, I do have it and that's why I'm just so interested in this topic. I didn't know I had it, really. A lot of people don't realize that they've got it, but it was in my late 30s when I actually discovered it. But when I think back to my youth, I always pushed through. I was a strong capable kind of person and I would push through and I'd put on a brave face. I remember my mom being so surprised that my first day in grade one, I wanted to walk to school on my

own, which was unheard of. All the moms were dropping their kids off at school, but I was determined that I was going to do this. And I was fine when I was younger, but high school was brutal.

When I look back on it, I was very shy. I was very studious. I didn't date boys even when someone was interested in me; I just didn't want to do it. I was just very, very shy and I think that was possibly due to a hormonal shift, going through adolescence. So looking back, that sort of makes me think about the possibility that yes, I'd always had it, and then, I did much better in my 20s and my early 30s. I didn't have less stress in my life and my hormones were nicely balanced and everything was going great.

And as you heard, in my first interview of the summit, I talked about this perfect storm in my late 30s, when I was under a lot of stress. I had gluten issues and I was eating a vegetarian diet. You'll hear a little bit more about this connection between pyroluria and being a vegetarian in a second. I had really bad PMS and I read Ann Louise Gittleman's amazing book called *Taking Charge of Your Perimenopause*. I got on zinc, vitamin B6, and evening primrose oil for my PMS, and my symptoms of social anxiety and inner tension resolved. Then I came across pyroluria when I read Julia Ross's book called *The Mood Cure*. She's got a small section in there and when I worked at the clinic, I actually tested myself and discovered I did have pyroluria.

Then, of course, I read Joan Matthews Larson's book and I heard her present and started to learn more about it. And that's how I discovered it. It was by chance and I didn't realize that it was this issue, I, sort of lived with it, I dealt with it, I handled it, and a lot of people do that. They don't realize that there's different ways that they can feel.

Corey Schuler: Wow, well, thank for sharing that. Being an expert on the matter and especially now I think people don't realize that we all have our journey. We all have to figure it out. It's not like, oh, well, we know stuff; so we know how our bodies work. We have to figure ourselves out, too.

Trudy Scott: Yeah, and you have pyroluria, too. Can you share a little bit about your story and how you discovered it?

Corey Schuler: My story is not terribly different than your own. My occupation was being a speaker. So I traveled around the entire country and I did training and lectures and talks and just was an educator. And there were times when I felt like I'm in the audience and the audience is with me, and this is great, and afterwards, I just had so much energy. I couldn't even sleep. I was just so excited and then there was other times when as I was standing and doing the talking and speaking, I couldn't wait until it was done. I wanted to leave and I was just like, "Ugh! I can't be around these people."

I like people and I've been known to sort of say something to that effect, and I just don't want to be around people. So I had to kind of wonder. Am I an introvert, or am I an extrovert? I take those tests and they tell me that I'm somewhere in between, because I'm one way one day; and one day, the other. And I actually got a little bit worried. When I have these cycles, I am good one day and not so good the other. I'm one way one day and not that way another day. There's sort of a component of bipolar disorder.

So I started looking into that for myself. In fact, I had patients that were bipolar, and then, I actually picked up your book in 2011, maybe early 2012, and got interested in it. Then I started researching William Walsh, and I started reading Carl Pfeiffer's work and Eva Edelman's and all this stuff that we just talked about, and it all fits together that maybe that this was my issue all along. What happened to me is that I would get fairly irritable and angry with especially the people that were closest to me when I was in that stage.

Now I know that it was a certain stressor, something that put me in the position where I would be affected most by pyrrole, or there's something usually wrong with my diet or stress and that caused me to be in those cycles, and it wasn't an organic bipolar disorder at all.

Trudy Scott: Very interesting. I did not know that you had done the introvert/extrovert quiz. We're going to talk about that in a second. Are you saying that you made the connection, when you read my book?

Corey Schuler: Yeah, actually I did.

Trudy Scott: I did not know this. *[Laughs]* That's so cool.

Corey Schuler: Yeah, I'm a readoholic and I'm a nutritionist so of course I read *The Antianxiety Food Solution*. Well, gosh, I have to figure this out with food. Food will fix it. So I think yeah, your book was the first thing I picked up.

Trudy Scott: Oh, fantastic. That's really great and I like the fact that you started looking for answers. You didn't want to feel like this, so you started digging and looking. There's so much in the literature and there's so much to read and you sound like me. I'm a total book person. When I started to have my issues, I just read every single book that I could get my hands on and there's so much that we can do. We don't have to not feel good. We don't have to not feel our absolute best.

Corey Schuler: That's right, Trudy. We can keep searching. That's great and so I think it's a great lead-in to what I want to ask you next and that is we described our own journeys, but can you talk more broadly about the classic signs and symptoms that might be clues to pyroluria?

Trudy Scott:

Yes. We need to be aware, as you're saying, Corey, is that everyone is different, but there are some classic signs and symptoms. The big ones are anxiety and this inner tension and, as Corey said, feeling uncomfortable in social settings. The speaking part is a big component, and we're going to talk about that, too. I, too, love to speak. I travel around and speak, and I would force myself to do it. And it sounds like you did the same, Corey, where you would sort of push through and force yourself. You shouldn't have to do that. The other big thing is that being with people is obviously uncomfortable. I mentioned how I'd been shy, and you will often see shyness in kids who like to isolate or prefer playing with one friend. So the big thing is you like one-on-one interactions rather than big crowds of people.

When Carl Pfeiffer was doing the work with schizophrenics, he started to notice some of these things that he would see commonly in people who had the anxiety and this inner tension. Some of them were not remembering their dreams or having nightmares. So if you had nightmares as a kid or you have bad dreams now... I have my clients telling me "I have these weird dreams where there's this weird stuff going on. I wouldn't say it's a nightmare, but it's kind of weird dreams of people chasing me and people with axes and things like that." You may also have depression.

The other big thing that we often see is morning nausea, and no desire to eat breakfast. We've talked about how important breakfast is in an earlier interview on the summit - important for stabilizing blood sugar and keeping your blood sugar stable throughout the day. So having breakfast first thing in the morning is really important. But- if you've got pyroluria, you may not even feel like breakfast until lunch time. The other thing that they noticed is that a lot of people with pyroluria came from an all-girl family. So their moms have a lot of sisters or they have a lot of sisters and often they have look-alike sisters.

And I'd like to have you comment Corey, on the all-girl aspect of your family. Have you got sisters or does your mom or aunts have a lot of girls in their family?

Corey Schuler:

A little bit to that degree. My mother has two sisters and I have a sister and so it kind of leans that way, but interestingly enough, my wife who also has pyroluria, has three sisters and they all look exactly alike, like if you didn't know them personally, you could easily confuse them. So that's really curious. I wasn't aware of that aspect of it.

Trudy Scott:

Yeah, it's really interesting. I've got two sisters and people often get confused. People will get confused about who's who. Even my youngest sister who's 11 years younger than me... people will greet me as "Hi, Wendy," when I was

living in South Africa. I don't think we look terribly alike, but we look alike enough so people confuse us.

So I think that's a very interesting aspect. Another thing that I've noticed, - which isn't on any of the questionnaires - you often find people with pyroluria have high incidences of miscarriage and usually, it's boys that they lose. And that may be the reason why we're seeing it more commonly in girls because a lot of the little boys aren't surviving. I think it is very interesting.

Corey Schuler: Hmm, that is interesting.

Trudy Scott: I discovered that from one of my tribe, who commented on my blog. I've got a pyroluria questionnaire on my website, which we'll share with everyone. We'll share a lot of this information that we're talking about today because it's a lot. Someone asked me about this: had I seen a connection to miscarriage? I did some research and found that there were some other people talking about it, and it seems to be more common than we realize.

Corey Schuler: Wow. Is there anything else you want to tell us about those classic signs and symptoms or how people can sort of self-identify at least or are you ready to talk about the research?

Trudy Scott: Yeah, yeah, there's still a few more. So, the other common ones are joints popping or aching, and that's because of low zinc. The other common things that we see with low zinc is this poor appetite, poor sense of smell, poor sense of taste and then the stretch marks on the skin and white flecks on the nails. All of these are classic signs of low zinc just on their own, but we'll see them often with pyrolurics. Then I mentioned earlier, many are vegetarians, because of not wanting to eat meat, not wanting to eat animal protein. When your zinc levels are low, you may have an aversion to animal protein. We've heard a number of people mention that they have been vegetarians in some of The Anxiety Summit talks.

And it was quite interesting, someone actually posted on my Facebook page saying, "It's very interesting I just attended the Thyroid Summit and there seems to be this common theme from the presenters saying, 'I used to be a vegetarian,' and I thought, 'Hmm, that's pretty interesting.'" We did share all about the importance of grass-fed red meat in Dr. Felice Jacka's talk. She was talking about the research and how important grass-fed red meat is, and it's obviously important for this as well.

Corey Schuler: That's interesting. Even the normal person who doesn't have this pyroluria, if you're under stress, you shunt zinc away to the adrenal glands, you shunt zinc away from the stomach, which is why you don't digest, or one of the reasons you don't digest well when you're under stress. Zinc is important for 200 to 300 different enzymes in the body. So if you're zinc deficient, you're in big

trouble and then you add on top of that, you're spilling it out of the urine in high amounts. Yikes. No wonder we don't feel good.

Trudy Scott: Exactly. I'm glad you mentioned that it's a common deficiency because I really feel that it's way underrated as an important nutrient. I just see it as the new kid on the block. There's a lot of new research just on the zinc itself (which we're going to go into in a second) and anyone can be deficient in zinc. As you say, it's when we're under a lot of stress, when we over-exercise, when we consume too much sugar, we lose a lot of zinc.

Corey Schuler: Yeah, absolutely. If you're like me, you want to get it from whole foods first and you go to Google and you say "foods high in zinc," you see things like oysters pop up, and I don't eat a lot of oysters. So it's hard to get it from food.

Trudy Scott: Yep. I'm curious, Corey, have you been a vegetarian at all?

Corey Schuler: No. I did experiment a little bit with the blood type diet, and I'm A positive and so that's more of the agrarian, more grains. And I did it for, I don't know, probably three, four months, and I literally was in the worst health of my entire life during that time. So I dipped a toe in and ran from it screaming.

Trudy Scott: Okay, good to hear. So I'm ready for talking about research. Are we ready to do that?

Corey Schuler: I'm ready. You know me, I love research. So let's go to it.

Trudy Scott: Yes, you do. As I said earlier, it's not well recognized in the medical community and there's not any recent research. All the research was done in the 1960s and 1970s. If you look up anything to do with Carl Pfeiffer or Abram Hoffer, you will find a lot of the research. There is a very nice part 1 and part 2 papers that were published in 2008 in *Alternative Therapies in Health and Medicine* and both of them are called "Discerning the Mauve Factor," M-A-U-V-E, and that's part 1 and part 2. They give a nice synopsis of the factors that go into pyroluria. Do you know of any other research other than that, Corey?

Corey Schuler: I don't. I know that there is ongoing sort of private research that does happen in sort of database collection, things like that, but nothing that does the double-blind randomized controlled trial with proper patient selection criteria and proper controls and all the boring stuff that no one really wants to hear me talk about. That's the kind of research we need to take this from where it is now to on the hearts and minds of psychiatrists, psychologists. I actually have something I'd like to spill?

Trudy Scott: Yes, please do.

Corey Schuler: There is a lobbyist, who has talked to a variety of individuals in this area, who wants to create a change in the dynamic of what psychiatrists and psychologists and primary care do. And there's an interest by this lobbyist and the people he represents to look at body imbalances before giving a mental health diagnosis to a child. So it's very exciting. This is a topic in of itself, so I won't dive too far into it. It's still in the really early stages, so it might become nothing, but exciting to think people are even thinking about things like pyroluria, which was one of the criteria that was in this preliminary piece. So very cool.

Trudy Scott: Wonderful. Is there a blog post or a link or something that we can share with everyone?

Corey Schuler: Yeah, I will make sure that you get that in the right form so we can share it with everybody listening.

Trudy Scott: Okay. Fantastic. I love it. I wanted to just mention Dr. Elissa Mendenhall. She's a naturopath and director of the Amenda Clinic in Portland. I presented at the Nutritional Therapy Association in Portland last year. They had a conference on inflammation and I talked about the inflammation connection to mood and anxiety. One of her colleagues was in the audience and connected me with Dr. Elissa Mendenhall. We had some great discussions about pyroluria and her clinic is an integrative clinic where they provide natural mental health and addiction treatment. She works with a lot of people with pyroluria. She's got an interest in doing some research. She's going to do some of this research that you just talked about, the double-blind placebo-controlled studies.

So we can actually have some recent current research, and I'm very excited to possibly help out and be part of the discussion because I think it's really important that we get some research out there because as you and I know, Corey, research is important. We know that we're seeing results clinically with these nutrients and that they make such a big difference. If we want to become part of the mainstream and to be forefront in psychiatry, we need to get some research done. And something else I just wanted to share about what Dr. Elissa had said to me is that she is seeing this connection between the MTHFR SNPs and pyroluria.

I haven't been working with people and testing the methylation defects for long enough to see a strong enough connection, but I am seeing some connections as well, and I have the MTHFR SNPs. I have two of them and you'll hear more about MTHFR and methylation in Coleen Walsh's amazing talk.

Corey Schuler: That's excellent. I think and I look at it like a cross hair. So I have pyroluria going across the horizontal crossbar and you can either have it or you can

have it really severely or you cannot have it at all. And then there's the vertical cross hair, too, and that's the methylation that you can be hyper-methylator or a hypo-methylator and finding out where you are on those two spectrums helps kind of aim the target and the cross hairs that are right on you. So that's the best treatment.

Trudy Scott:

That is. Then one other thing I wanted to mention is that there is a lot of research coming out on zinc and I really anticipate that we're going to see even more. I'm going to share three papers. One is a review of randomized trials. This is important and this is published in 2012 and what they've said is that “there are potential benefits of zinc supplementation as a standalone intervention or as an adjunct to conventional antidepressant drug therapy”, and this is for depression. But we know that we're often using SSRIs for anxiety as well. So that one is a very exciting one.

Then there's another one in 2011 saying that “zinc may modulate the symptoms of depression by improving serotonin” and we know there's this big connection between low serotonin and the anxiety where you have this anxiety in your head, the worrying in your head, the ruminating thoughts. And then the other one is an animal study that was done in 2012, saying that “zinc could be used as a novel therapeutic agent for anxiety.” So just on its own, zinc is really important and there is also some research on vitamin B6. There was a study done looking at women who had PMS, and the addition of B6 and magnesium resolved their PMS and their anxiety symptoms.

Corey Schuler:

Excellent. It seems so simple: vitamin B6 and zinc. I think you're doing the right things in keeping an eye on the literature just in regards to those therapeutic agents. In my office and other offices like mine, sometimes we look at serum zinc. Serum zinc isn't a great marker for your zinc stores. It's sort of the last thing to change, but one thing that does get run very often, as part of the regular blood panel, blood chemistry, is something called alkaline phosphatase. And sometimes that's our first indication that there's insufficient zinc when alkaline phosphatase is less than 70.

So everybody, go look at your last blood test. If it's under 70, that might be an indication that you need more zinc, not necessarily that you have pyroluria, but you might need more zinc and that, one of those causes could be pyrrole disorder. So cool. I'm really glad that you brought up that research, because that is more recognized and a little bit easier to find.

Trudy Scott:

I'm glad you mentioned the serum zinc because a lot of people will get that test done, and as you say, it's not a good marker. I look at alkaline phosphatase on all my clients and we're going to talk a little bit later about how to figure out if you do have pyroluria. And what I do is put the puzzle pieces together and alkaline phosphatase is one of the lab results that I have to figure out if someone may have it, together with some of the other things that

we're going to talk about in a second. So it's important to realize that doing a blood test for the serum zinc is not going to be enough.

Corey Schuler:

And it's kind of expensive anyway. So this could affect a lot of people. Is it common? Do we know it's prevalence? And are there other conditions besides anxiety and inner tension - the classic symptoms that you have mentioned before? Is there anything that we can think of beyond what we've already talked about?

Trudy Scott:

It's definitely more common than we realize and you may see different percentages in different locations because it really depends on the practice and who they're working with. I work with anxious women and I have found it to be very common, much more common than some of these percentages. But what I've seen in the literature is this (and on various different practitioners' blogs and websites): 40 percent of adults and 25 percent of children with psychiatric disorders seem to have pyroluria, 40 percent of alcoholics, and 30 percent of schizophrenics. And you'd asked the question earlier about schizophrenia, so we definitely do see some people with schizophrenia having pyroluria, and 25 percent of those with autism spectrum disorder. 11 percent of the healthy population has pyroluria, meaning, they don't have these other conditions. Then we see a lot of people with gluten intolerance having pyroluria. We see people with inflammation having pyroluria and then I mentioned earlier this miscarriage situation with people with pyroluria. I have my questionnaire that I have created based on Joan Matthews Larson's and Eva Edelman's work and working with various clients. I think we need to be adding some new questions to this questionnaire and hopefully that would be part of the study that we can do, so we can have a comprehensive questionnaire.

But as you say, not everyone has all of the symptoms and the cutoff on the questionnaire seems to be around 15. If you score more than 15 on the questionnaire, which we will share with everyone, that seems to be a clue that maybe you need to look a little bit further and even consider the supplementation that we're going to talk about.

Corey Schuler:

Wow. We can probably spend all day just on this thread and figuring out kind of where to piece it together and what else to think about and I think you're right. I think that we do need to revisit some of the questionnaires, but we have a good start and that's all we can ask right now.

I can't get over the idea about the extrovert/introvert piece. Can you tell me more about that not necessarily being a personality trait? Literally, I've taken a personality quiz and it tells me I'm an introvert sometimes. Is it a biochemical imbalance, personality trait, both, either? Help me out here.

Trudy Scott:

I love that you described earlier that you had done this introversion quiz. I didn't know that before doing this interview. So that was a very good lead-in to this. It was something that I came across recently. This last year there was this great *Huffington Post* article that was written by Carolyn Gregoire called "23 Signs You're Secretly An Introvert." I read the article and I was just fascinated because these 23 questions sounded just like pyroluria. It sounded just like I used to be and I could totally resonate with it. I thought, "Wow! Okay, maybe I'm an introvert... but no, I'm not an introvert anymore because I've got my pyroluria handled."

I'm just going to share a few of the questions. One of them was "you find small talk incredibly cumbersome and you go to parties, but not to meet people; you would rather spend time with people you already know and feel comfortable around." And then another one is "you often feel alone in a crowd." Another one: "networking makes you feel like a phony" and "you're easily distracted and overwhelmed in environments with an excess of stimulation" You mentioned that, when you talked about doing your talks, Corey.

I do just want to apologize because I've had this discussion with a few people who are introverts and they get mad and they say, "Don't try and change me. Just leave me alone. I'm quite happy the way I am. I don't need to be fixed or changed."

But based on the comments on this article in the *Huffington Post*, it's a very sore point. There were over 2,500 comments and many of them said they would like to change. And I'm just going to give you a few examples here. One person said, "After reading this and laughing at the fact that this is what my life is, I'm definitely an introvert. I'm not sad by that. I'm proud of it, but I do wish I was a little more outgoing in some aspects." So happy, but not quite happy.

Another person said, "It isn't always a comfortable place to be when I'm in a crowd. And I'm happy to be in my peaceful life where calmness and quiet prevail." And someone else said, "I'm not sure what I am. I actually like to be around people at first, but then after the first five minutes, I feel drained and anxious to get home and want to get to my books." So I was so intrigued by all of this.

I did a blog post and I invited folks to do both the pyroluria questionnaire and this introvert questionnaire (which was on the *Huffington Post* blog) and lo and behold, people scored high on both questionnaires. And people started getting on the pyroluria protocol and started saying, "I don't feel like I'm an introvert anymore. I don't feel anxious. I don't feel like I'm an anxious introvert." There are beautiful qualities that come with being an introvert. So my big question is this: Is introversion a personality trait, or is it a nutritional

deficiency possibly due to pyroluria? And I've now added, "Are you an introvert?" On my intake questionnaire and so far there's 100 percent correlation between the "yeses" on that and the people scoring high on pyroluria.

Corey Schuler: Wow, I would echo your thoughts. There's nothing wrong with being an introvert, but most introverts want the option to be able to be extroverted when they want to be and I think that's really clear, at least with my patient base. It sounds like your clients appreciate the option as well.

Trudy Scott: Yes, and I'm glad you used the word "extroverted." When I was doing this reading, I actually read Susan Cain's book, which is wonderful: *Quiet: The Power of Introverts*. I think it's a fabulous book to read. If you feel like you are an introvert, read it. It will give you a big understanding of yourself and if you're not an introvert, read it because it will give you a big understanding of people who are introverts. She estimates that 50 percent of the population are introverts.

What breaks my heart is that people who are introverts go out into social settings, they go to work and they have to be in meetings. And they use this term called "extrovert" as a verb: "I go to a meeting or I go to an event and I have to 'extrovert.'" In other words, I have to force myself to put on this brave face and look like I'm enjoying myself and look like I'm participating." And I'm all about changing that so it's comfortable, so it's easy, so it's just normal to feel comfortable and not feel anxious.

Corey Schuler: That's excellent. Was there an animal study or an experiment that was in relation to this? I don't exactly remember the details of it.

Trudy Scott: Yes, this is so interesting. This is a study that came out in the last month where they actually looked at introverts and extroverts and they looked to see which kind of pet they preferred. And what they've found is that introverts prefer cats and extroverts are dog people and I thought that was so interesting. I don't know if there's a connection with people with pyroluria, but I'm certainly going to be asking that question on my intake form because I think it's important to start making these connections. I happen to be a cat person. So there you go.

Corey Schuler: Funny, if I wasn't deathly allergic to cats, I'd probably would be, too. So I have dogs that act like cats. Well, we need to move on, but the idea here is that there's one fear that I think has topped the list of fears for decades now and that's the fear of public speaking. From what I've said and you've said and you've reported in your experiences, there's got to be some sort of connection here. Do you think there is?

Trudy Scott:

Yes, definitely, and I'm glad you mentioned that it's a big fear because there's two different stats running around that you'll read about. One is that more people fear public speaking than they do death and this is a 41 to 19 percent ratio. And then there's a 2011 Gallup study that said that fear of public speaking is 41 percent and fear of snakes at 50 percent. So that's a large number of people. We're right about 40 to 50 percent of people who have a fear of public speaking.

A lot of people will say, "I'm fine when I'm speaking on stage, but it's when I have to go and mingle with the audience or when I have to interact with the audience," so there is that component as well. I think you alluded to that a little bit earlier, Corey. I always liked speaking, but I had that component where I had to force myself and push through it.

I actually want to share a story of a client of mine. Sontine is the Executive Director of NAMI, National Alliance for Mental Health, another great organization that is supporting getting the message out and helping reduce the stigma of mental health. I speak at their meetings.

I've done a few talks there and I first met Sontine at one of the meetings and she started to work with me. When we finished working together, she did a wonderful video testimonial, which we'll share as well, but what she said is this: "When I first heard Trudy tell her personal story about anxiety and nutrition and "how I was able to completely eliminate my anxiety and social phobia," she said, I thought, "that's really unique." I believe that it worked for her," but she said, "I thought that's just a one in a million. It's definitely not going to work for most people and it's not going to work for me," When I tell my story, often it sounds too good to be true. How could this really happen? And it really does.

But I could understand why she was a little bit skeptical, but she believed that it could work. Anyway, she started to work with me and then she reported that after working with me for three months, she went from exhausted to normal healthy energy; anxiety decreased; mood and blood sugar stabilized; she was sleeping better; and "I completely lost my fear of public speaking, which has plagued me my whole life. I was so terrified. I avoided it as much as possible. Now I am not nervous and I enjoy it. It's been amazing for me."

Corey Schuler:

Wow, I can't wait to see the video. That reminds me I have some friends in the country music industry who basically helped the performers with their meet-and-greets in their event and she has reported to me that some of the biggest country music stars that you've ever known are bothered being around their fans. They're on stage in front of thousands of people every night, but they can't be with the fans, not because they're egotistical or anything like that. It just kind of bothers them, they can't see the faces and the interactions when they're on stage, but when they get into the crowd, they're very different. And

I hadn't ever put that together. So thanks. I'm learning tons here as we go. Like I said, this is the big time for me. I get to talk to you about this. This is great –

Trudy Scott: You're so sweet.

Corey Schuler: – and helpful. Oh, my gosh. This is wonderful. Well, we've covered a lot. We've covered everything from that inner tension and the classic symptoms and we've talked about the research, we've talked about how common it is, got some theories of maybe different questions and seeing if there's one particularly difficult symptom that you've seen a connection with. I was hoping you could tell us about a possible overlap between pyroluria and dystonia.

Trudy Scott: Yes, and this is a very recent thing. As I've said, I've got this pyroluria questionnaire on my blog and I get many people coming and asking questions. It's wonderful. The things that I've learned from my clients... I've certainly learned so much every day and I really appreciate that. A gentleman posted a question very recently saying, "Have you come across a connection between pyroluria and focal musician's dystonia?" And it's also called musicians cramp. This musician's dystonia had resulted in him having to put his professional musician career on hold. So it's very interesting that you just talked about the musicians there, Corey.

So I started to do some digging because I've just got this curious mind. My brother says to me, "Trudy, will you ever stop learning and reading?" And absolutely not, because I just love to learn all of this. And first, let me just tell you what dystonia is and then I'll tell you what I found. Dystonia is a neurological movement disorder, which is much more common than I realized. And what you have are these muscle contractions that cause twisting and repetitive movements or abnormal postures. So it was affecting him being able to play his instrument.

I made some extrapolations from what I read on this website called dystonia.org.uk. What they said is that people who have dystonia are more likely to experience anxiety and depression and OCD even before the physical symptoms of dystonia appear. They also talked about how drugs that are used to treat mental health disorders could actually be using the symptoms, certainly, antipsychotic medications.

They also recommend some drug treatments that are often used for anxiety and depression. Now I would suggest rather looking at whether you possibly have low GABA or low serotonin or low catecholamines, and then determine if the amino acids could give you that same relief. So they talked about antidepressants but why not try 5-HTP or tryptophan, which you heard all about in the interview with Julia Ross and Hyla Cass. You heard Josh

Friedman talking about the amino acids as well. So I think we need to do more work in this area. A few other things is that if you've got pyroluria, you're going to have low levels of zinc and B6 and remember these are co-factors that are needed to make serotonin and GABA and the other neurotransmitters.

Of course, I kept digging and I did a PubMed search and I found an autoimmune connection to dystonia. There was a case study where a person's symptoms resolved when they went on a gluten-free diet and so much more. So I'm pretty intrigued by all of this. I did hear back from this gentleman (because I shared all of this with him) and he said, "I started taking the B6 and the zinc two weeks ago and I do find some relief already." Pretty interesting.

Corey Schuler:

Wow. So he didn't even go through all the diagnostic work to figure out if he had pyrrole disorder or pyroluria. He just tried it and it seemed to help him. Well, I'm sure that people who are listening might be thinking kind of what their friends sitting next to them might be, is that wow, this sounds exactly what I have. Is there a test for it? What is it that I need to do to either confirm or rule out this as my issue?

Trudy Scott:

I use the questionnaire. That's what my primary method is of figuring it out and because I'm a nutritionist, I can't diagnose or prescribe, so I would never tell someone that they have pyroluria, but I can say that based on this questionnaire, it looks like you have a possible deficiency in zinc and B6. We'll talk about some of the other nutrients as well. And addressing those deficiencies can make a big difference. So Carl Pfeiffer came out with a great questionnaire in his book. It's in Joan Matthews Larson's book *Depression-Free, Naturally*.

I have got an updated version in my book, *The Antianxiety Food Solution*, that I've tweaked based on feedback that I was getting from clients. As I said earlier, I'm adding in other questions that come up just so we can start to see if there is a correlation with some of these other conditions like miscarriage or like dystonia or some of the other things that we're starting to see. Then you had mentioned earlier looking at alkaline phosphatase as being a marker, so if that's less than 70, that's another clue that zinc may be low. I use dream recall as an indication as to whether someone may have low vitamin B6 and certainly if someone is having nightmares or the weird dreams, then B6 is definitely something that we want to consider. And if someone has the low serotonin, the low GABA, the other low neurotransmitter symptoms, there's a good clue that they possibly need zinc and B6 as well.

The other thing that I do is use the zinc taste test to see if someone is noticing the taste of the zinc. It's a liquid form of zinc - zinc sulfate. And it has a certain taste. And there are four different levels. Level 1 is no taste at all - just like water. Level 2 is like water initially and then you're getting

something: very sweet, mineral, dry, maybe some kind of texture. Level 3 is you're noticing something right away and it gets worse, but not terribly bad. And Level 4 is so bad that you can't hold it in your mouth. Most of my clients are Level 2 which indicates a possible need for zinc.

Now I use all of these things I've talked about in conjunction with the questionnaire and the response to nutrients and then see how their symptoms improve. There are some labs that do the urine test and I'll talk about that in a second. This is what I do to try and figure it out. I want to just share a little bit more about the zinc test because most people score around 2, which means you need zinc. I go to a lot of conferences and exhibit at conferences and when I'm there, I'll have the liquid zinc and I'll have people taste it. So it's a good educational tool and it draws people in so they can learn about this. And most of the time people are at Level 2, not really tasting it.

I was actually at the Weston A. Price Conference one year and this woman came up and did the taste and she pulled such a terrible face and she yelled and said, "Oh, my gosh, it's terrible." Her name is Kelly Hetherington, by the way, and I said, "Kelly, that was such an amazing reaction. No one ever tasted it like that. And I wished I had videoed it." She said, "I'll do it again."

So I got my little video camera out and she did it again and her reaction was just the same. I got a video of it and that's on my blog as well. I like to share that because that gives you an indication of what it should taste like. A lot of people can't even believe that it would taste that bad.

Corey Schuler:

Oh, my gosh, I know that I didn't get the pleasure of working with him, but Dr. George Goodheart, the father of applied kinesiology decided that was going to be one of his foundational path and somebody asked Dr. Goodheart. They said, "What should it taste like?" And his response – you'll love this – he said, "It should taste like rotten battery acid." I don't think battery acid rots, but it gives you the distinct impression, which your video probably does a better job of, it should be fairly awful.

Trudy Scott:

Yeah, you shouldn't be able to hold it in your mouth. You should be going, "Oh, oh, oh! I want to get it out of my mouth! It's horrible." That kind of feeling. And I don't know what the battery acid tastes like, but that's a very good indication.

Now there are few other clues that might indicate that pyroluria may be an issue and that is testing fatty acid levels. This is what we have found and there's research supporting this.

Dr. McGinnis talks about it in the part 1 and part 2 paper that I mentioned earlier in the talk, that a lot of people with pyroluria need omega-6s. There's a fatty acid test that you can do, which will indicate what your omega-6 levels

are like, what your omega-3 levels are like. And if someone has good levels of EPA and DHA, which are the omega-3s, but low levels of omega-6, then that could be a clue. And I found that to be very common: pyrolurics do not need supplemental omega-3s and this is an important point to make because a lot of practitioners are saying “everyone should be on an omega-3.” With the population that I work with, because a lot of them have pyroluria, I don't agree with that.

I think that is important to test, to see if you need the omega-3s because you can actually end up having too much. There's such a thing as too much of a good thing and if you're taking too much fish oil, that's not a good thing either.

Corey Schuler: Wow, that's really good information. I do run into the people that say everybody needs a fish oil or an EPA & DHA supplement, and like you, I tend to get into small professional disagreements with that.

Trudy Scott: Yeah, now there are two other markers – there's a test called the organic acids test. There are two organic acids markers on this test that are an indication of low B6. One is if you've got elevated levels of xanthurenate or elevated levels of kynurenate, especially when xanthurenate is high. And Dr. Lord published a paper on that. I would love to see a nice little panel being put together by some lab that looks at fatty acid levels, alkaline phosphatase, these B6 markers, to see if we can have one test that's sort of going to pull all of this together

As I alluded to earlier, there are these urine tests available. When I was working in Julia Ross's clinic, we used a lab called Vitamin Diagnostics and did the pyroluria testing. But their testing is not the same as it used to be unfortunately. They're working on making some upgrades.

There are some other companies offering the urine test and I did some split testing where I sent some samples of urine to a number of labs, of people who I knew had pyroluria, and a lot of them came back negative. So I just don't want someone to do the pyroluria test, comes back negative, and then they think they don't need to do anything. So if that is a situation, I would say if you score high on the questionnaire, you think you have pyroluria, work with someone to get on this protocol, that we're going to talk about in a second, and see if your symptoms improve. If they do, it doesn't matter if the test is negative.

And it may just be a matter of that the tests are not sensitive enough or it may be that there's a threshold thing that you are scoring low when you actually have symptoms. Certainly when we're doing the urine test with Vitamin Diagnostics, we didn't see a correlation between the high score on the urine test and the severity of symptoms. So some people would have very severe

symptoms and still score pretty low. So I still think that doing the questionnaire and looking at all these other things is important.

Corey Schuler:

I think it's always good to work with supporting the person rather than treating a lab test. And the chemist in me has to jump in here. There's a couple of different ways of doing these tests and so sometimes there's issues with degradation of the sample. So the pyrrole is actually really sensitive to light. So if the lab doesn't prepare for that, like they either allow sample and collection to be exposed to radiation light in their own lab, they can see degradation. So it's more common to see lows than highs. They call them false negatives. It's more common to see that than false positives.

So, at least my read on the test is that if it's positive, it's definitely positive. If it's negative, it might still be positive. So I think that's part of the issue. And there's one more and that's the concentration. If you take a urine sample and you just measure for something, that's fine. But if you don't measure against the volume of the urine or the concentration gradient, you can miss a calculation there. And so there are some mistakes that can be made. So you really do have to work with the lab that kind of knows what they're doing and are experienced in that particular analyte testing.

Trudy Scott:

Excellent, good points. And I do want to mention that I've heard from a number of people in Australia and I know we have people from Australia on this call. There are some labs in Australia that seem to be good. I just don't have a list of them, but I think you make a good point that if it's negative, it maybe a false negative and that's an important thing to think about.

Corey Schuler:

Wow, that is good information to put it all together and take a more holistic approach to it. I think our listeners now get it. I think they're starting to really piece it together and we know that we need zinc, we need B6, we probably need omega-6s, like using evening primrose oil or GLA. So let's start talking about protocol. How much do you typically give to someone? Where do you start? Is it complex? Tell us more.

Trudy Scott:

Zinc is the first nutrient that we start with and keep in mind that the RDA or recommended daily allowance for zinc is 8 to 12 milligrams. So what we're going to talk about are therapeutic levels. I will start my clients with 30 milligrams of zinc daily with a meal and then increase to 60 milligrams, based on the zinc taste test and how they're feeling mood-wise and anxiety-wise. I like to use a form called Optizinc, O-P-T-I-Z-I-N-C. It's zinc monomethionine. I found that it's very well absorbed with most of my clients. It's important that when you're taking a zinc supplement that it does not contain copper.

Optizinc is a proprietary form and it's used in various different formulations. Source Naturals has an Optizinc and it does have copper in it. So just make

sure that you get something that doesn't have copper. Life Extension has an Optizinc and Solaray has an Optizinc [with no copper]. I do want to just say that some people will not notice something with Optizinc and then I will switch them to another form of zinc.

Then the next nutrient is vitamin B6 and we start with 100 mg and we increase up to 500 mg - 100 mg each week or every two weeks until you're starting to remember your dreams. That's a clue that you're getting good levels of vitamin B6.

Now there are some people that can't make the conversion and they need the activated form of B6 which is P5P, pyridoxal-5-phosphate, and in that case, the starting dose is 25 mg and we go up to 100 mg. I do want to clarify that 100 mg of B6 (pyridoxine), is not the same as 100 mg of P5P. So 100 mg of B6 is similar to 25 mg of P5P. Some people need a combination of the B6 and the P5P. The important thing to be aware of is that too much B6 can cause a tingling in extremities or peripheral neuropathy and it's totally reversible. So if you start to notice that, you want to back down on the B6.

We talked earlier about the omegas and we want to get on at least 1,300 mg of evening primrose oil. I find the evening primrose oil to be better than the borage oil and there's actually research showing that this improves zinc absorption. One of the clues that I use to try and figure out if we do want someone to get on omega-6 or the evening primrose oil, if we haven't done the fatty acid testing, is ask this question: "Do you have PMS?" Or if someone is menopausal, "did you have PMS when you were having your period?" And if someone does or did, then it's probably a good idea to add in the evening primrose oil. And then as I mentioned earlier not supplementing with the omega-3s or at least doing a test. And what the literature seems to say is that people who have pyroluria are able to extract omega-3s from the food that they eat.

If you're eating beautiful grass-fed red meat, you're getting a good source of omega-3s there. If you're eating leafy greens, if you're eating walnuts, if you're eating fish, wild fish like beautiful wild salmon, as a pyroluric, you can extract that from the food that you eat. You don't need to supplement and that is a very big distinction from what a lot of people are saying about omega-3s as we talked about earlier. And then the other final thing is a multivitamin that should be copper-free. We get way too much copper in our diets.

We're exposed to copper from various sources and copper and zinc balance each other out. So if you've got low zinc, you're likely to have high copper and you don't want to be getting extra copper in a supplement. And then take a multimineral because you also need nutrients like magnesium and manganese.

Corey Schuler:

Wow, that's a comprehensive protocol. I'm glad you brought up the issue of copper because you can get some problems when people go too high and too fast with zinc sometimes because they balance each other out. You can get what they call copper dumping, sort of a nasty term, and it's kind of how people feel, too, when they are throwing copper out and they just feel like they have the flu. So if that happens to you, don't worry about it because you'll get through it, but you might want to reduce your zinc for the time being until you can tell that's a tolerable phenomenon, but it is transient and you do get through it.

Interestingly enough, too, in many of my post-cancer patients, the thrivers that I work with, I'm also suggesting a copper-free multivitamin for them also, something that has no boron and there's no synthetic vitamin E, no beta-carotene. So that might be an interesting use of that same multi. So excellent. This is really good. People can really walk away and use this material right away.

We've talked a lot about supplements. In figuring out what to do with nutritional supplements, I'm wondering if you can just eat your way out of this one. Can we eat just the really healthy whole food diet and then forget about the supplements if you have pyroluria?

Trudy Scott:

Unfortunately, no. And I know you are on the same page as me, Corey, that it's all about real whole food first. But if you have this, you do need to be taking the supplements. And you do need to do it forever. And a lot of people don't like the thought of that. "I don't want to have to take supplements forever. I've got a healthy diet."

I'm going to share a story of someone that I worked with who scored really high on the pyroluria questionnaire. She ate pretty well. She loved chocolates. So she getting a lot of sugar from the chocolate and she did the pyroluria questionnaire. She scored high and she said, "I've got this feeling of nervousness that I can't explain. I can't put my finger on it. My anxiety is especially worse in social situations, but it's not as bad when I'm at home."

She was not a supplement person. She didn't believe in supplements. So she reluctantly agreed to go on the 30 mg of zinc and 100 mg of B6 and that's the only change she did. And there were some improvements in her anxiety and the social anxiety within one week and a huge reduction over the next month. That was the only change she made, nothing else. She was not convinced that she needed the supplements.

So she stopped taking the zinc and the B6 and sure enough, her social anxiety came back. So then she talked to me again. She got back on the zinc and the B6 and the social anxiety went away. And she had a number of on-and-off trials and is now convinced that she needs to be taking them and figure when

she's more stressed, which we're going to talk in a second, she needs to really be cognizant of this.

Obviously, diet is important, very important. We've talked about how sugar depletes your levels of zinc. It depletes all levels of our B vitamins. We learned about the importance of red meat from Dr. Felice Jacka, which is a wonderful source of zinc and B6 and the omega-3s. So it is important, but you do need to take the supplements.

Corey Schuler: That answers that pretty emphatically. Thank you for clearing it all up for everyone. You said we were going to talk about it. I want to talk about it right now. If you had to say there's one factor to consider that we haven't really talked about in detail, what would be that factor?

Trudy Scott: Stress. Because when you're stressed, you dump zinc and B6 and then your symptoms get worse. I was working with a woman who has pyroluria. She was on the supplements. She was under a very stressful situation where they were possibly going to lose their home to foreclosure and all of her symptoms came back. And she, actually happened to be a musician as well. That's very interesting. I have to think if she also had any of the dystonia symptoms. I just had made that connection right now.

Her performance anxiety increased when she was performing. She stopped dreaming and then she started to have some pretty bad dreams. And we bumped her supplements during this very short-term stressful time and her symptoms went away and then she was able to lower them again after that.

So it's really important to practice stress reduction in your day-to-day life. But I'm not going to get into it here because you did such a beautiful job in your interview, Corey. So be sure to listen to Corey's interview. We talked about lavender and maca and then a whole section on Corey's amazing tips for stress reduction. It was really great.

Corey Schuler: Well, thanks. It was fun to be on the other side and we had a nice meaningful conversation there, too. So yeah, I hope people do listen.

Trudy Scott: Then I also wanted to just share that Esther Blum talked about some tips for stress reduction and then you're going to hear some great tips from Dr. Amy Day where she talked about the adrenals and some stress reduction tips. So you'll hear this theme throughout The Anxiety Summit on how important stress reduction is.

Corey Schuler: Sounds like stress has weaved its way in and out of a lot of these talks. Excellent, because they couldn't be more important of a topic in modern living. Well, I hope that the others listening have taken as good of notes as I just did and learned a bunch from your talk and your expertise on the issue of

pyroluria. I guess I wanted to leave you with that one last question that I always like to hear from the expert is: are there any final words of wisdom for our listeners today?

Trudy Scott:

I would say don't tolerate not feeling your absolute best. That's my big thing. If you're not feeling great, look for answers so you can find answers. But related to this topic is the question whether you could feel different because the way you're feeling now may be the norm. It's maybe how you felt your whole life and if some of the stuff you've heard today resonates, question it.

I actually worked with a woman who said, "I've been like this my whole life. I didn't know that I could feel any other way." And a lot of people will look at the pyroluria questionnaire and say, "Wow, I just didn't know that there was any other way." So if what I'm saying resonates with you, dig a little bit deeper, look for answers, and find solutions so you can feel your absolute best, so you can feel on top of the world.

Corey Schuler:

That's excellent words of wisdom. And I'm going to take that to heart and use it myself. Thank you, Trudy.

Trudy Scott:

Good. Well, it's been such fun having you interview me, Corey. I really, really enjoyed it. I appreciate it and you taking the time. I just love your enthusiasm for the topic and your words of wisdom during the interview. I loved your comment at the beginning about being excited about doing this interview. So thank you very much.

So that's it today on The Anxiety Summit. You have another week of great speakers. Enjoy every single interview. Don't forget to listen to Corey's great interview and you'll be hearing from me again on the last day. So be sure to tune in. I'll be answering questions that have come up. There's been some great interaction on the Facebook section on the replay page. People are commenting on my blog.

I just love all the interaction on my Facebook page, TrudyScottAntianxietyFoodSolution. So keep those comments coming, keep those questions coming. I'm going to be doing some case studies. I'm going to be talking about coffee and other topics that didn't get into the Summit, plus I'm going to be sharing plenty of additional resources so you can feel on top of the world every day. This is Trudy Scott signing off on the pyroluria talk.

Here is The Anxiety Summit blog post for this interview. It has additional information and useful links:

<http://www.everywomanover29.com/blog/anxiety-summit-how-zinc-vitamin-b6-prevent-pyroluria-social-anxiety/>

Trudy Scott, CN, host of The Anxiety Summit, Food Mood expert and author of *The Antianxiety Food Solution*



Food Mood Expert Trudy Scott is a certified nutritionist on a mission to educate and empower anxious individuals worldwide about natural solutions for anxiety, stress and emotional eating. Trudy serves as a catalyst in bringing about life enhancing transformations that start with the healing powers of eating real whole food, using individually targeted supplementation and making simple lifestyle changes. She works primarily with women but the information she offers works equally well for men and children.

Trudy also presents nationally to nutrition and mental health professionals on food and mood, sharing all the recent research and how-to steps so they too can educate and empower their clients and patients.

Trudy is past president of the National Association of Nutrition Professionals. She was recipient of the 2012 Impact Award and currently serves as a Special Advisor to the Board of Directors. Trudy is a member of Alliance for Addiction Solutions and Anxiety and Depression Association of America. She was a nominee for the 2015 Scattergood Innovation Award and is a faculty advisor at Hawthorn University.

Trudy is the author of *The Antianxiety Food Solution: How the Foods You Eat Can Help You Calm Your Anxious Mind, Improve Your Mood and End Cravings* (New Harbinger 2011) and host of *The Anxiety Summit*.

Trudy is passionate about sharing the powerful food mood connection because she experienced the results first-hand, finding complete resolution of her anxiety and panic attacks.

Corey Schuler, MS, DC, LN, CNS, CNP, board-certified nutrition specialist, chiropractic physician. Dr. Schuler's clinical practice is focused on mood, behavior, and metabolic health. He is director of the Metabolic Treatment Center in the Twin Cities, Minnesota, graduating from the University of Bridgeport and Northwestern Health Sciences University. He is a board-certified nutrition specialist, board-certified in holistic nutrition, a licensed nutritionist, and chiropractic physician. He is also a doctoral candidate in behavioral health at Arizona State University.



Dr. Schuler is core faculty at the School of Applied Clinical Nutrition at New York Chiropractic College. He serves on the board of directors for the National Association of Nutrition Professionals (NANP) and an advisor to the Certification Board of Nutrition Specialists. Dr. Schuler is a reviewer for the Journal of Alternative and Complementary Medicine. He is a member of Institute for Functional Medicine, American College of Nutrition, American Nutrition Association, and NANP. In addition to his role on the medical advisory board for three leading nutraceutical companies, Dr. Schuler is a medical writer for the nutrition industry.

This transcript is from Season 1 of the Anxiety Summit, held in June 2014. If you enjoyed it, be sure to watch Trudy's great interview with Sean Croxton on The Depression Sessions. They discuss pyroluria and introversion (Sean shares why he is so interested in this topic and you may be in for a surprise!). AND they also cover the amazing amino acids for eliminating anxiety

The Anxiety Summit is a free live online event where Trudy interviews 20+ world-class experts and opinion leaders on the topic of anxiety and food, sharing the science and practical transformational tools you can apply right away.

The Anxiety Summit features NEW speakers and NEW topics each season!

The Anxiety Summit Season 4 is currently scheduled for fall 2015. To get on the notification list, please sign up at: <http://www.theanxietysummit.com/>

Here are all the speaker blogs for each summit:

The Anxiety Summit Season 1 (June 2014)

<http://www.everywomanover29.com/blog/anxiety-summit-all-the-speakers-and-topics/>

The Anxiety Summit Season 2 (November 2014)

<http://www.everywomanover29.com/blog/the-anxiety-summit-2-all-the-speakers-and-topics/>

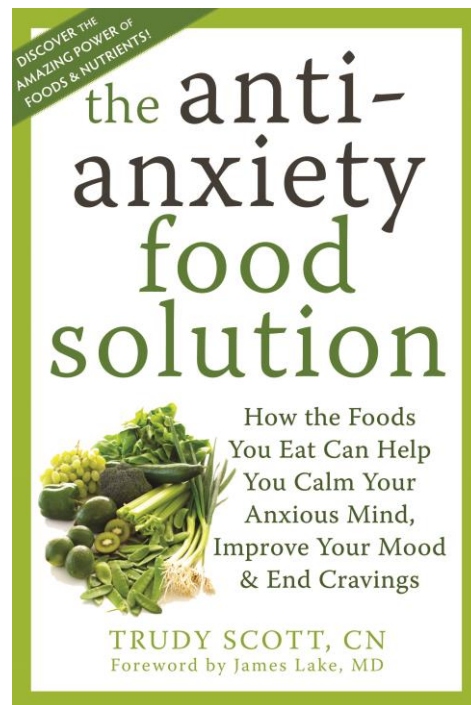
The Anxiety Summit Season 3 (May 2015)

<http://www.everywomanover29.com/blog/anxiety-summit-season-3-articles/>

The recordings/transcripts of all prior summits are available for purchase:

To view the past summit topics and/or purchase the summit products (as digital downloads and data CDs), please visit the store page: <http://www.everywomanover29.com/storemenu.html>

Trudy's book has a whole chapter on pyroluria: *The Antianxiety Food Solution: How the Foods You Eat Can Help You Calm Your Anxious Mind, Improve Your Mood and End Cravings*. Visit <http://www.antianxietyfoodsolution.com/> for more information on the book.



And the blog has many new articles on pyroluria – addressing oxytocin, CFS, ADHD, autism, a whole post on dystonia, with more being added all the time. Simply visit <http://www.everywomanover29.com/blog/> and enter PYROLURIA in the search box.

The information provided in The Anxiety Summit via the interviews, the blog posts, the website, the audio files and transcripts, the comments and all other means is for informational and educational purposes only and is not intended as a substitute for advice from your physician or other health care professional. You should consult with a healthcare professional before starting any diet, exercise, or supplementation program, before taking or stopping any medication, or if you have or suspect you may have a health problem.