

## Tryptophan for anxiety, depression and insomnia: why quality is key and the critical co-factors (part 2 of 2)

- The benefits of tryptophan for anxiety/mood/insomnia and why Trudy only recommends Lidtke
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*Trudy Scott:* Welcome to season four of *The Anxiety Summit*. I am your host, Trudy Scott, food mood expert, certified nutritionist, and author of *The Antianxiety Food Solution*. Today we are talking about part two of a wonderful interview that I did with Ron Sturtz from Lidtke and the topic is “Tryptophan for Anxiety, Depression and Insomnia: Why Quality is Key and Critical Co-factors.”

If you didn't listen to part one I encourage you to go back and listen to part one. We talked a lot about quality. We talked about glyphosate and we talked about the 500 milligram tryptophan and the chewable tryptophan which is 100 milligrams. And it was a wonderful interview and we had so much information to share that we decided to do two parts

to this interview. So do go back and listen to that. You'll hear the information about Ron's background and how he got into this.

And today we're going to talk about the concerns that some practitioners have with using tryptophan at all no matter what the quality is. And this is concerns about the neurotoxic quinolinic acid and some people say not to use it at all because of inflammation or dysbiosis and the tryptophan going down the wrong pathway and causing problems. And Lidtke has created a tryptophan complete product that tries to address some of these concerns and we're going to go through some of the biochemistry and some of the rationale for some of these co-factors that are so important when it comes to serotonin production with tryptophan and some of these other nutrients. So welcome again Ron. It's great to have you back here for part two of this interview.

*Ron Sturtz:* Hi Trudy. We're eager to go ahead and talk as much as you need us.

*Trudy Scott:* Okay, great. So you very kindly sent a great diagram with some of the biochemical pathways and we'll make sure that we make that available and we may even do a video down the road to explain this in more detail. But I think let's make a stab at talking about some of the pathways and to try and allay some of these concerns about tryptophan going down the wrong pathway. So let's start with wherever you think is a good place to start so we can get people understanding this and allaying some of these concerns.

*Ron Sturtz:* Well maybe we could go back to the history of how we started our research into Tryptophan Complete. This was back in 2003 when it was a Saturday and I was in the office and two of our employees came rushing in and they said oh, you won't believe this. We got this huge order from a country in Africa. And so they showed me this and all the documentation and everything and so I began thinking well all the documentaries that I had seen of Africa seemed to show that the people were not very well nourished. And knowing that every amino acid for example or just about every chemical reaction in the body is facilitated by enzymes. And those enzymes typically need co-factors or coenzymes, you can call them either way. But that boils down to vitamins or minerals or other kinds of biochemicals. And I always like to use the metaphor of an enzyme being like a car without wheels. You have to put the wheels on for it to do anything. And the enzymes themselves are all proteins. They're just linkages of amino acids that coil up in certain ways that they can help two different biochemicals come together and have a reaction. And that's what metabolism is and that's how tryptophan gets down the serotonin pathway or down the kynurenine pathway or anything else that happens in the body. And so thinking that their diets may not supply the vitamins and minerals that will put wheels on the car. So they

could take tryptophan and it will just sit there and they won't get much use out of it. Not optimal use and it may even turn into a waste product that's not helping them at all.

And so we began looking into it. We really got seriously interested in looking at the pathways and finding out how we could make the tryptophan work for people, even people who are malnourished. And that wouldn't just be people who were undernourished but people in the United States for example who have just a bad diet. They're eating all the wrong things and how can we produce a product that would help them. And so that's how we got interested in the pathways. And looking for ways to help tryptophan go down the serotonin pathway to serotonin and stay there as long as possible because tryptophan of course can go off in other directions. It can be used in production of proteins or it can go down the kynurenine pathway ultimately toward the production of NAD, nicotinamide adenine dinucleotide, which is used in every cell in the body. The amount of tryptophan going down the serotonin pathway is only maybe five percent of the tryptophan. The rest of it, most of it, 90 percent of it typically goes down the kynurenine pathway which tells you that there's something important about going down that pathway. If you were to shut off that pathway that would be a very bad thing. So not taking tryptophan because you don't want it to go down that pathway because there are a couple of possible neurotoxic products that could come out of that just isn't good justification for shutting off the supply.

So out of those few percent, out of ten percent maybe and that goes up and down so it's not a constant will go into the production of proteins and to serotonin. So we were looking for ways to make sure first of all the co-factors would be available to take tryptophan down the pathway and get it to serotonin. And that also we would want to not shut off but diminish the passage down the kynurenine pathway and also put in those factors that would help to ensure that the potentially toxic chemicals produced they would only be in passing and that they would not linger. They would not build up.

And this isn't the only pathway where things like that happen. There are always potentially molecules that are created and hopefully for a short period of time that may not be that good for you. But you try to be well nourished so that those are minimal. They're minimized and you still end up with everything that you need. So that was kind of the background thinking behind it and we can go talk a little bit more about the pathways.

Tryptophan going down to serotonin and tryptophan hydroxylase there's iron, there's tetrahydrobiopterin. Tetrahydrobiopterin now when we looked at it back then it came out - was about \$4 million a kilogram because it was not something that was readily available in the market. So

we'd have to get it from a chemical supply house and that's how much they would charge. So we looked for precursors to that and folic acid is a precursor that we included.

We did not put iron in at that time because people are – it's even worse than like certain people like this flavor, other people like that flavor - iron is even worse. I mean people are really very strongly opinionated about whether they should have iron or not or how much iron they should have or not. And we just couldn't foresee making everyone happy. One alternative to that that I would like to explore going forward is the facility where our products are being encapsulated, blended and encapsulated and bottled. We are working towards a pharmaceutical license there and that probably should allow us to manufacture homeopathic products. And not so much that we want according to the original homeopathic paradigm of like cures like but just the technology, the trituration technology of taking iron and reducing it to a very small particle size such as in the cell salts.

And at some point when the doctors of homeopathy were having great success but chemistry continued to evolve and they realized that some of the homeopathic remedies actually were nutrients that the body actually needed. So it was instead of supplying like cures like it was giving ortho molecules to cure a deficiency. So a different paradigm even though the underlying technology of making the tablets was in many cases most of the time the same. And that's what you see today. You see the cell salts are made the same as the homeopathic tablets. And one advantage of that is that you can use a very small amount to effect a significant benefit. And people talk about why is that. Is it the energy signatures or is it just that the particles are so small they're usually absorbed by the cells. Any of that could be true. But certainly the part about the particles being absorbed better into your cells if they're very small. So there is that possibility going forward of introducing iron in that form into the formula so it would not stand any chance of anybody overdosing who might be concerned about that.

*Trudy Scott:* Excellent. And that's interesting that you mentioned the iron because it is such an important co-factor. And so many products nowadays will not have iron because of men not needing the iron or postmenopausal women not needing the iron. It's something that most practitioners are testing and hopefully you would have someone supporting their iron levels if they are low. But it's interesting that you're looking at the homeopathic approach. That's very interesting. It sounds good. Now the other nutrient is P5P.

*Ron Sturtz:* Yes P5P and that is P5P, pyridoxal 5-phosphate. It's not pyridoxine hydrochloride. I've never seen a pathway or a chemical reaction in the body that requires pyridoxine hydrochloride. So that's what we put in

there for the next step after 5-HTP going to serotonin. And acetyl-CoA is needed to go down to the next step after serotonin. Then there's another step where SAMe is required to go to melatonin. But that's also activated by light or the absence of light when the lights are turned out. That seems to also facilitate that last step from serotonin to melatonin. So I think that pathway is pretty well covered in a lot of places.

*Trudy Scott:* So when you're talking about being covered if we're looking at the Tryptophan Complete those ingredients are in the Tryptophan Complete. Well I shouldn't say that. We don't have the iron but you do have the P5P in there.

*Ron Sturtz:* Yes we do. And then going down the other pathway, the kynurenine pathway there are certain things now we want to suppress a little bit. We don't want to shut it off. We want to suppress it a little bit and there are a couple of things that do that. The cox-2 inhibitors for example are very good at doing that. Things like carnisol from rosemary and curcumin and indoleamine 2,3-dioxygenase that is the enzyme that – that's the first rate limiting enzyme going down the kynurenine pathway. When you have too much of that – and that's abbreviated IDO - when you have too much IDO that seems to be linked to increased production of tumors and cancers of one kind or another. And whether the cancer cells themselves are able to upregulate the IDO I couldn't tell you that. But certainly it is upregulated when cancers are being detected. So that doesn't seem to be a good thing to upregulate.

So we do have the rosemary in there and we have curcumin in there also. Hopefully that will down regulate the IDO somewhat going down that pathway. Then once it gets down that pathway the P5P is there also. In fact there's one branch off the kynurenine pathway - 3HK or 3 hydroxy kynurenine is one of the toxic byproducts that if you have enough P5P that's not going to build up. And if you don't then it will also go out to xanthurenate and when that shows up in the urine then that's one of the tests for B6 deficiency. So P5P is just an important part of that pathway.

Also we think it's important to have the biochemical feedback to further shut down the IDO. And we've had niacinamide in the past because the end product of that pathway is the NAD. And you can't really take NAD or put it into a capsule because it's fairly unstable. If you put it in a capsule and the capsule dissolves it's probably going to be broken down by the hydrochloric acid in your stomach and it just isn't going to do that much good. We haven't been selling much NAD recently but we used to sell NADH actually, the reduced form of NAD. I know there's a pharmacy up in Oregon that we were selling quite a bit of that to. But that one we would always tell people to put it under their tongue just like

you are with your amino acid checking of symptoms. So it really wasn't suitable for putting it in a capsule.

That has kind of changed recently in that there's a new form of niacin if you will on the market that has become available that is called nicotinamide riboside. And that is a very good precursor to NAD and it's apparently very stable. You can take it in a capsule. It'll go through your stomach and not be broken down. So that maybe as soon as our next production run we will be substituting for the niacinimide. We'll be putting in the nicotinamide riboside which will satisfy the need for any NAD in the body and also hopefully help to suppress the need for so much tryptophan to go down that IDO pathway, the kynurenine pathway.

*Trudy Scott:* So a quick question for you about the nicotinamide riboside. Is that going to provide the same benefits that you would get from the niacinimide and then the additional benefits of helping with the tryptophan not going down the wrong pathway or helping with the neurotoxic effects?

*Ron Sturtz:* I don't know which benefits of niacinamide wouldn't be covered by that. We haven't finalized that question yet and it's possible we could put that in in addition to the nicotinamide riboside. There's so much biochemistry though to cover that we will be covering before we go to production to see if we can't answer that question better. It's a legitimate question but we'll see.

*Trudy Scott:* I look forward to hearing more about that. I just see so many benefits from niacinamide certainly with my clients and there's a lot of research on how beneficial it is for anxiety on it's own. And certainly people that have been on benzodiazepines see great benefits getting on niacinamide and then all the work of Abram Hoffer with schizophrenia. So it's a wonderful nutrient. So it will be interesting to see what you find. I look forward to hearing more as you go down this pathway.

*Ron Sturtz:* Well there's no harm in putting both of them in and so we want to cover all our bases so that might be a good plan.

*Trudy Scott:* Excellent. The other nutrient that you have in there is lysine and I find that so interesting. You mentioned earlier about the most lacking amino acids and lysine was one of them. And there's actually research showing how lysine can improve mood. Tell us why you put lysine in this formula and what it's doing?

*Ron Sturtz:* Yes. And there's an element of speculation. When you're putting together the parts of these pathways you just it's like a giant jigsaw puzzle and you put things together and this is always happening with the



biochemists and then you find out after a few years that you put them together wrong and you change things around. But it's our opinion that the lysine is facilitating in one way or another the tryptophan hydroxylase enzyme. And so helping you to go down that pathway. We can't prove it. We can't point to a clinical study because there aren't that many being done. Most of them are being done by the pharmaceutical companies and funding something like that is a very difficult thing. Just to go through an internal review board is like \$100,000 just to get a stamp of approval to proceed with the research without even doing it.

But from all that we gathered, from all the bits and pieces that's the conclusion that we're working with. That's our working hypothesis and it has been that it does help in that way. Because like you say when you put it in the formula it seems to work better.

*Trudy Scott:* Excellent. And there is research just on lysine on its own. There's a paper that was published in 2010 in Ghana looking at lysine supplementation on health. And it helps with diarrhea and helps with anxiety. So we've got research on lysine itself. But I agree with you. It would be lovely to have more research on all of these.

*Ron Sturtz:* It's tough getting research funded from the government too if you have something that's not tied to a pharmaceutical. You have the National Institutes of Health and you have the National Science Foundation just for example. It's not easy getting funding from those. So if you're waiting for that to prove your theories don't hold your breath.

*Trudy Scott:* You need to go with what's out there. The other study that I've quoted a few times is one that was done in Syria. I'm sure you're familiar with it that looked at populations consuming cereal based diets. And they found that lysine fortification helped with reducing chronic anxiety. So we've got this correlation with how it can actually help anxiety. And it's not something that we hear about when we're talking about anxiety often so I was very intrigued to see that it was in your formulation and I'm glad to hear that you are seeing results.

And I just want to make a little statement here: the Tryptophan Complete is one that I'm not as familiar with as the 500 milligram Tryptophan just for everyone listening. I've been using the 500 milligram with my clients for over ten years. The Tryptophan Complete is just a new one that's sort of come on my radar and I started looking into it and I actually posted something on Facebook a few months ago and then did a blog post to get feedback from people. And I've had some promising feedback. I've had one person say "I've used the Tryptophan Complete and liked it a lot better than the 500 milligrams. It gave me a much deeper state of relaxation and a way more solid sleep." She used that, got benefits then

tried the 500 and now has decided to go back to the Complete. So she feels that the addition of the other ingredients really helped for her body chemistry. I did have someone else say that she can't do P5P at all. It makes her agitated. So for people who have individual reactions to any of the ingredients then you would go with the 500 milligrams.

And in part one of this interview I talked about how I have people do a trial and we find their own unique amount that they would need. And right now what I'm recommending is that you do a trial with the 500 milligrams, find how much works for you and then consider trying the Tryptophan Complete and figuring out what that could equate to. And it may be that you use one or two of the Tryptophan Complete and then you go up and up and up with the 500 milligrams until you find that right amount. Because my concern is with going too high with the Tryptophan Complete you might be getting to many of these other ingredients. And I know you've shared with me Ron that you find that because of these additional nutrients in this formulation that you may need less of the actual capsules. Can you just talk a little bit about that?

*Ron Sturtz:* Well I don't know about less but here's 350 milligrams of tryptophan in the Tryptophan Complete and people ask well since there's less tryptophan do I need to take more capsules. And that's not our experience that an equal number or a lesser number seems to do just as well. So even with less tryptophan.

*Trudy Scott:* That's what I was meaning so thanks for that clarification.

*Ron Sturtz:* Also with regard to the 500 milligrams versus the Tryptophan Complete we have many people who have been working on their nutrition for many years and they are already taking a variety of nutrients whether it's their multiple or maybe they're taking individual ones. They have everything all worked out. So they've adjusted everything already to what works for them. So those people oftentimes are the ones – those are almost always actually the ones who go for the plain tryptophan because we're trying to with the amounts that we put in we're trying to put in amounts that are just going to work for the broadest group of people who need supplementation. And so obviously we're not going to be able to get it exactly right for everyone. But there are people who have already worked all that out and so the tryptophan seems to be the right one for them. Because we say well it has this and this and this and this. They say well I'm already taking this and this and this and this. I say great. They put all that thought into their diet.

*Trudy Scott:* Excellent. And that just goes back to each person figuring out where they're at, what they're already taking. If someone is already taking some of these cofactors in they may not need the Complete. But as you



said earlier you started this because of concerns about malnourishment in Africa. But people in America and other Western countries can be as malnourished as people in Africa. So if you have been eating a standard American diet or a standard Australian diet and you've been eating junk food and you're malnourished, then the Tryptophan Complete is going to give you a lot of those co-factors. And thanks for making that clarification about less. And I did do a blog post on this so there's going to be a speaker blog with this interview and I'll make sure to share that blog post that I did on the tryptophan 500mg versus Tryptophan Complete. And I'd love feedback because I'm learning and the more information I have, the more recommendations I can make to my clients and obviously the more information that Ron and Lidtke have the more that they can tweak these formulations if that's what they decide to do. So we are learning and I love that you are so open to changing your formulation and tweaking things. It's really, really great.

*Ron Sturtz:* Absolutely. Yes the more we learn the more we can fine tune them and make them better. And we're always just believe in that we want to give our customers the best they can get.

*Trudy Scott:* Yes, yes. And I don't think I said it at the beginning of this call. I don't even remember if I said it in part one. That I'm not affiliated with Lidtke. I don't get paid to sell this. I just like to share really good information and really good products and I decided I wanted to interview Ron so he could talk about something that I've been raving about for years. So I want to just make that clarification. I just think the product is so good and I appreciate all the research and the knowledge and the passion that goes into this. It's really refreshing to speak to someone like you Ron. It really is. I'm a big fan as you can tell.

*Ron Sturtz:* Well we're happy to talk anytime really. And there's so much more to talk about.

*Trudy Scott:* There is. Now I want to just ask one more question about the formulation for the Complete and that is that it contains – you mentioned a form of folate comes from lemon peel. Tell us a little about that and the rationale for using that.

*Ron Sturtz:* There are people who are concerned about folic acid and that's kind of a difficult issue because as you know the methyl folate came out a number of years ago by a drug company. I tried it myself but I talked with people who had tried it and I never heard a single positive review of that. At least in the circle of people that I talk to. They all expressed that they had side effects, unpleasant side effects.

And so first and foremost we stand for safety. And so I listen to what people are saying and if they are not responding well I don't care what the advertisements say and I don't care what the research is saying. We're not going to put it in our product. So that was the kind of feedback that I was getting from that. And there may be a host of people who have exactly the opposite but that was my concern. And there are also people concerned about - well they say folic acid is synthetic. Well yeah but if a nutrient is of the right form that has a lot to do with it also.

That's kind of mantra in the medical profession that well you can get everything you need. Just eat your food and you'll get all the nutrients you'll need. So if you get sick it's because you're deficient in this drug or that drug. Well I don't think that's ever been true that everybody can get everything they need from food. And the only way you can get some nutrients is by manufacturing them. Like I said if you try to extract it – many of them if you try to extract them from our foodstuff you'd never be able to afford it. So what are those people going to do who need those extra nutrients? Well there aren't too many options there. You try to make them the safest and the most natural way possible such as amino acids. You could say that amino acids not being extracted from food are unnatural or synthetic but that's not entirely true and maybe not true at all in that they are made by fermentation. There are a couple of exceptions to that but very few. In general they're all made by fermentation. But that fermentation process uses bacteria just like you have fermentation of yogurts or kefir or sauerkraut. They're fermented foods that we think very highly of and have been used for thousands of years. So anyway there are questions about that of course about how nutrients are made.

So it's not just where it's made or how it's made but it's also is it the ortho molecule. That was the term that at least I first heard of it from Linus Pauling who made vitamin C so popular years ago.

And I went to a lecture of his way back at Stanford many years ago and he was very – he was almost insulting to the medical doctors in the audience. But he always reiterated the ortho molecule meaning the right molecule coming from the Greek ortho, right angle or correct. The right molecule for the job. Also ascorbic acid and ascorbic acid even though it's made from – it's not directly extracted, it is made from starch for example. But it does wonderful things for people who have snake bites. You mentioned Abram Hoffer. There are others who have used large amounts of injectable ascorbic acid into the veins and if you had a snake bite, somebody with a rattlesnake bite, a victim and you were hoping to save them by giving them a glass of orange juice or like 50 glasses of orange juice. It's not going to do it.

So the synthetic nutrients often are lifesaving and necessary. And they were able to just by injecting very large amounts of ascorbic acid into the veins of people with snake bites able to save them, able to save their lives. So we get into that kind of back and forth discussion about folic acid and some people say well, it wasn't extracted from a fruit or a vegetable. Therefore they don't like it. But over the years after they started putting folic acid in food the government mandated thousands of babies were saved from spinal disorders and a variety of other things. So was it bad? Should they not have done it? So we're kind of torn there. But when I'm hearing people say they have negative side effects we're not going to use it. So in the meantime we have folic acid but the lemon peel it's just – hopefully it will satisfy people. It's still a folic acid that is produced by the lemon but if you separate it out it's still folic acid. But we haven't heard of any negative side effects from that and so that seems like kind of the best happy medium that we've come up with so far. In our conscience we can feel that people are getting something that's safe and is natural as we can get it.

*Trudy Scott:* Excellent. So I've got a few comments. First I didn't know about the ascorbic acid and snake bites. That's very interesting. And the fact that you're talking about people having reactions, I interviewed Dr. Ben Lynch on a prior summit and he talked about how too much methyl folate can make you more anxious. So I think a lot of it has to do with your need.

*Ron Sturtz:* Dosage.

*Trudy Scott:* Yes, and dosage. And how much you need and what's your methylation process is like. I'm actually going to be interviewing Dr. Walsh on this summit and we're going to be talking about low histamine and high histamine and how people with low histamine or histapenia have higher possible need for folate and those with high histamine or histdelia have a problem with it. So it can be a problem with some people. So it's good that you talked about this and that you've come up with something that seems to be working. That's very interesting.

*Ron Sturtz:* And the people who are taking our Tryptophan Complete how many of them know what their folic acid need is? So it's a very tight margin of error there. A very tight margin of safety. And we don't want to gamble with them because they're not going to know how much they need. It's not something they're going to know. And this has to be as available to as broad a market as possible, as many people as possible that will benefit that many.

*Trudy Scott:* Excellent. Great. Thanks for that clarification. Now there are other co-factors that we talked about before this interview. Obviously iron we

talked about and that's not included for the reasons we discussed. Zinc and magnesium and B12 are also really important for making serotonin but obviously you couldn't include all of those but I didn't want to leave those out because I want folks to know that there are these other nutrients that help us to make serotonin.

*Ron Sturtz:* Yes. You have to be selective in what you can put in a capsule. You only have so much real estate there and you run out of room and they're always complaining to me, especially about the Tryptophan Complete. They say we can't get it in the capsule. And I say well keep trying. And they eventually do but it's made on semiautomatic machines, not the high speed machines. It's done more carefully, more slowly and less heat generated. But it takes a lot of time, a lot of time, days to go through these production runs. We tend to do short production runs but still it takes sometimes days to go through them to be able to get everything in the capsule.

*Trudy Scott:* Very interesting. And most of my clients are on zinc anyway and we would test for iron levels and magnesium as often part of the picture and we'll test for B12 and if it's low we would be adding that as well. So as you said making sure your nutritional status is good either taking the 500 milligrams or the Tryptophan Complete. Now I've got one follow on question about this quinolinic acid potential concern. And that is I've heard a doctor, Dr. James Greenblatt – he actually spoke on a prior summit. And he says he uses organic acid testing and will actually look at the output, the results. And if someone does have high quinolinic acid he would not use tryptophan. Have you got any comments on that?

*Ron Sturtz:* Well just that we have put in all those coenzymes and cofactors to try to minimize any problem that you will have a buildup of that. Quinolinic acid is one of the toxic potential biochemical produced in that pathway. But like I say that's not unique to tryptophan. You have this potential for things going wrong all over the body. And hopefully you have the nutrition available that makes them just very quick stepping stones and they don't build up. We have the P5P and so forth and to help convert that so it ends up as NAD we're putting in the, you know, we have been putting in the niacinamide to create a feedback loop because that is a rate limiting enzyme. The IDO that can be suppressed by a negative feedback and so we have that. And then we also have those other ingredients the curcumin and the rosemary to help to suppress that a bit. So to shut down that pathway all together isn't a good idea. And the way to do that I guess really is to stop taking tryptophan or reduce tryptophan.

But tryptophan – and this is the distinction between tryptophan and 5HTP. Tryptophan is an essential amino acid that you cannot live without. Your body doesn't make it. And 5HTP on the other hand is

pretty much just a stepping stone between tryptophan and serotonin. Tryptophan doesn't go backwards – 5HTP does not go backwards to produce tryptophan and it's not going to serve all the purposes of tryptophan in the body. And if you have deficiencies in the body or evidence of deficiencies in serotonin and so forth it could be that you need, your whole body needs tryptophan. And too much tinkering there with those pathways shutting them down - there are all these unintended consequences. Like with interferon for example. They've had problems with that.

A number of years ago there was a doctor from the Veterans Administration who called us up and he said I'd really like it if you could donate a lot of 5-HTP to us for our cancer patients. And he said they're all like really, really depressed those who are on Interferon. So we said of course – and here's another case of a doctor who is really concerned about what was going on. There are no clinicals. There was no real research. I mean look at the pathways, figure it out yourself. There's nobody to say well yeah, this goes here and this is what the consequence is going to be. Typically people don't know. So you have to figure these things out. And he figured out that either the indolamine, the IDO or actually the kynurenine pathway was being facilitated more or tryptophan hydroxase was being suppressed. And so by either the cancer itself and that's been linked by many people by now. That was years ago. Many people have made that linkage between cancer and even multiple sclerosis and other things with elevated kynurenine pathway.

And if you allow all those toxic byproducts to build up well you're definitely going to have problems. Absence of tryptophan in the vicinity of the cancer cells apparently that will enable the various kinds of pathogens and pathogenic cells to flourish because like I used the example before with the glyphosate. You have macrophages for example that need tryptophan to fight these pathogens. And so just the environment, the beneficial cells around cancers they need tryptophan. So that's how we've handled it is by trying to ensure that the tryptophan is mostly going down the serotonin pathway.

But let me finish what I was saying about the doctor. He called us up and he had figured out that they were suicidally depressed - these soldiers, these veterans that were in the hospital. And this isn't just one veteran's hospital. This is you name it around the country. You're going to have veterans suffering from cancer there. So he thought well if we could just bypass the tryptophan hydroxylase and go to 5-HTP then it will go to serotonin and avoid all these other pathway diversions and you'll get these guys psychologically back on track so at least they want to live. And of course we agreed to that but the unfortunate thing was that it's not the only time this has been heard about the Veteran's Administration. I

don't want to put them down as a whole but the person who controlled the internal review board denied it. Said no we don't approve that. And that was just unbelievable. I spoke to the head of the internal review board. She didn't know biochemistry from shopping carts. But it meant nothing to her. The only thing that meant anything to her was that she had a grudge against this doctor and it didn't matter what he asked for, she was going to decline it. And she was the head of the internal review board.

So it went on like that for two and a half years and I kept jumping through hoops. They had asked me for more documentation, the safety and all the specs and everything else about 5-HTP. I'd send it to them. Two and a half years of that it just was too much. We just kind of gave up on it. So unfortunately those veterans never got the help that they needed. I'm sure that's not an isolated case.

*Trudy Scott:* So what is the connection to the interferon?

*Ron Sturtz:* Well the interferon has a tendency to suppress apparently the IDO enzyme. But that's another point of unintended consequences that I brought up before is that the interferon. They have various interferons. There's not just one interferon. There are various ones that do different things and even if they try to target one specific function there are all these unintended misunderstood ramifications that come out of it. So the interferon that they were using to treat the cancer patients was having that effect whether it was enabling the IDO or suppressing tryptophan hydroxylase. That just wasn't known. But one of those things was happening and by bypassing that step all together with 5-HTP that doctor believed that would have helped the soldiers.

*Trudy Scott:* Wow. What a pity they didn't get the help.

*Trudy Scott:* I would love to see some informal sort of trials down the road where people who are taking the Tryptophan Complete get organic acid tests done and see what their quinolinic acid looks like. And then see folks who have high quinolinic acid who have been on regular tryptophan get on Tryptophan Complete and see if that makes a difference. Because I think that's going to put people's minds at ease and show them that yes, there is a big impact. So hopefully we can facilitate something like that. I'd love to help if I can.

*Ron Sturtz:* Sure. Anything that will help us refine and improve our formulas we're absolutely for that.

*Trudy Scott:* I'm sure we'll have lots of people who will be willing to volunteer and we can talk to some of the labs that offer this and maybe we can get an



informal little study together and just see this. Because it would make me feel more comfortable because I hear so many practitioners voicing their concerns about it and I want something safe and I know you want something safe. So I think that would be good.

I'd like to talk about the pet's version of tryptophan and I've had people use the tryptophan for their cats and their dogs. And I've heard of someone using tryptophan for their horse. There's two products that I use with my clients who have anxious pets. One of them is the tryptophan and then there's an Anxitane product which is actually theanine which helps with the low GABA anxiety. So it's really wonderful to think that our pets can benefit from this wonderful amino acid as well. Tell us a little bit about how you formulated that and how you've tested it on animals and what the dosing might be.

*Ron Sturtz:* Well the very first product we came out with in that regard was a product called Steadfast. And it was for horses. And one of the people working in our company at that time had a relative of his who barrel raced horses. And they had a horse that, you know, some horses just become very nervous and this one would become so nervous that it was supposed to go like around 15 times around the barrels. And it could never get beyond three. It would just fall apart. It was just a useless horse at that point. It never won anything. Couldn't finish a race. It was an embarrassment. So anyway coincidentally we were coming out with Steadfast and it was wheat mids. That's what they call it in the Midwest. But wheat bran. Horses seem to digest that just fine. And so we mixed that and we also put in some molasses flavoring. The people we were working with originally that was their business doing that kind of thing for the agriculture and farm animals.

But they didn't know how much molasses to put in so they put in way too much and it came out a big molasses mess. So we had to do a second production run with much less molasses and tryptophan. And tryptophan was the only ingredient in there. And so they punched these into like pellets. And they came in a bucket and so we sent it up to the fellow who was doing the barrel racing. I believe that was up in Utah. And he said he started feeding it and I couldn't tell you the recipe off the top of my head exactly how much tryptophan was in there but we worked it out so that it would be somewhat analogous to a modest dosage for a human - a horse given its weight would be getting about the same percentage wise. So we worked that out and he started giving that to his horse and I never expected to hear anything back. But we did.

And he wrote a long testimonial for us and he said – and it really wasn't us. It was the tryptophan that was doing it. And he said that he started feeding the horse and he said after a while not only was his horse able to

finish the 15 runs around the barrels. Not only did he finish that but he was winning. And he told me about winning a saddle. Now a saddle is not a cheap thing. I mean that was a really good prize. And so he was just thrilled about that. His horse was now able to race and able to win. After that we really didn't have the sales staff at that time to go out to the tack stores and that kind of thing so we just kind of put it on the shelf until at which time we had better distribution channels into that industry or into that interest area or horses in general. It wouldn't just have to be racehorses but horses in general. And we'd love to come out with that product again.

*Trudy Scott:* Great. And then you've had a version for cats and dogs as well?

*Ron Sturtz:* Yes we have Travel Paws and I guess we're coming out with Travel Claws. Probably some of the people in our sales staff would be able to give the better discussion of how pets are responding to those products. I don't get as much opportunity these days to talk to customers as I used to. But I'd love to put someone on – I can't right at the moment but I'd love to put someone on who could tell you more about how the pets are responding to that.

*Trudy Scott:* Okay, well great. It's just great that this is available and so many people are concerned about their cats and dogs and horses that have anxiety and why not address low serotonin in them as well. This has been so fantastic Ron. You're a wealth of information. I've thoroughly enjoyed it. I appreciate doing two sessions with you. Any final words of wisdom for us?

*Ron Sturtz:* Well I really love your idea of getting together folks who maybe have certain kinds of health issues that we could maybe help out even more by doing very extensive testing and optimizing formulas. Maybe some variations we came up with would not be suitable for the population as a whole but for certain individuals, certain specialized groups of people. That would be great if we could help everybody expand the reach of our products to help as many people as we can.

*Trudy Scott:* Wonderful. I'm excited about the possibilities and I appreciate your expertise and your commitment to quality and your time today. And for folks who may not have listened to part one of the series I just want to mention that Ron and Lidtke have kindly offered a 15 percent discount on any of the Lidtke products through June. And I correct in saying it's any of the Lidtke products?

*Ron Sturtz:* Sure, yes.

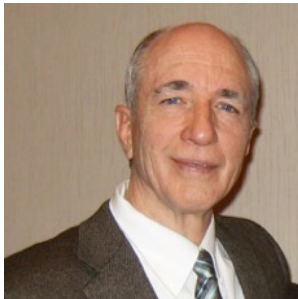
**Trudy Scott:** Okay and the coupon code is anxietysummit - so thanks for doing that. And I just want to say again what a pleasure it's been to have you share this. I learned so much the first time I talked to you and I'm excited to continue to recommend and endorse the Lidtke Tryptophan. It's been a real pleasure having you Ron. Thanks so much.

**Ron Sturtz:** Thank you again Trudy. I really enjoyed it.

**Trudy Scott:** Thank you everyone for joining us on part two of the series on *The Anxiety Summit*. And please do tune in to other great interviews on *The Anxiety Summit*. This is Trudy Scott signing off.

Speaker Blog: <http://www.everywomanover29.com/blog/tryptophan-anxiety-depression-insomnia/>

**Ron Sturtz**, Owner/President, Lidtke Technologies



Ronald G. Sturtz, B.A., M.S. founded Lidtke on January 1st of 1994 following his work on a National Institute of Health (NIH) research project. But his career in nutrition really began almost from birth, battling chronic health problems when no one seemed to realize that food can make you sick. In college he began a serious search for alternatives to conventional medicine, and was amazed in 1968 when he came across Adelle Davis's book, *Let's Get Well*. Then, as a starving college student in the sixties, he hitch-hiked great distances just to find unique books on nutrition and health.

Ron still remembers buying his first bottle of L-Tryptophan in 1974. It seemed to be a strangely significant moment, but he didn't know why until twenty years later. After returning again to college in 1977, he continued his habit of spending long hours in university medical libraries reading medical journals, books, and homeopathic collections often hidden away in library basements. unread and collecting dust.

After years at universities, and after signing the last payroll check closing out the NIH research grant on December 31, 1993, the next day Ron founded Lidtke. Ron's first customers were doctors who were looking for hard-to-find specialty biochemicals to use in their practice. In this environment, Lidtke introduced L-Tryptophan, which at the time was nearly impossible to find. There was no marketing or advertising, just doctors referring other doctors, so business continued to grow. Once the internet was up and

running, the name Lidtke was circulated more widely, and at that time the decision was made to provide non-prescription products directly to consumers.

From our beginning, Lidtke has been fanatical about purity and safety. Driven by the controversy in 1990 over contaminated L-Tryptophan, Ron learned of a research project at the FDA in early 1994 in which they were testing L-Tryptophan from every source on the planet. In the course of discussing this project with the lead scientist, Ron discovered who was manufacturing the purest L-Tryptophan in the world and became committed to re-introducing it to the American market. This commitment to safety and precision always has been our goal, and it applies to everything Lidtke makes.

**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). She is also the host of the wildly popular *Anxiety Summit*, a virtual event where she interviews experts on nutritional solutions for anxiety.

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.

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.