

Antibiotic Induced Anxiety – How Fluoroquinolone Antibiotics Induce Psychiatric Illness Symptoms

- Fluoroquinolone antibiotics and what they are prescribed for
- Why fluoroquinolones are more dangerous than other antibiotics
- How they can cause serious psychiatric problems, including anxiety.
- Ways fluoroquinolones cause psychiatric problems: GABA inhibition, gut destruction, piperazine molecule, mitochondrial destruction, oxidative stress and magnesium depletion.
- Fluoroquinolone toxicity and fibromyalgia, ME/CFS, autoimmunity and thyroid disease
- Recovery from fluoroquinolone damage



Trudy Scott:

Welcome to *The Anxiety Summit*. I'm your host, Trudy Scott, food mood expert; certified nutritionist; and author of *The Antianxiety Food Solution*. Today our topic is “Antibiotic induced anxiety: how fluoroquinolone antibiotics induce psychiatric illness symptoms.” And we have Lisa Bloomquist here to share all about it. Welcome Lisa.

Lisa Bloomquist:

Thank you so much Trudy. I appreciate you having me on the show.

Trudy Scott:

Well, thanks very much. I'm going to share a little bit about you and then I just want to share about how I came to invite you to speak on this topic. You do have a very powerful story to share and I think it's a very important topic that no one else is really talking about. Certainly it was something new to me. I discovered your information and your articles just a few months ago and it's not something that I hear a lot of people talking about. And I'm always looking for possible root causes of anxiety and this is certainly one possible root cause that would need to be investigated. So it's really interesting to learn about this and I'm excited to share this information.

Lisa Bloomquist is a patient advocate who was injured by Cipro in 2011. She runs Floxie Hope, a fluoroquinolone toxicity advocacy site, and manages The Fluoroquinolone Wall of Pain. Lisa is a guest blogger for Hormones Matter and Collective-Evolution and hosts The Floxie Hope podcast. Lisa has vowed to continue to scream about the dangers of fluoroquinolone antibiotics until those in the medical professions start paying attention to their Hippocratic oath, until proper informed consent is established for administration of these drugs and until physicians stop giving them to children. Lisa is a Colorado native who enjoys the mountains, Pilates and her cat. I'm also a cat lover. She has a BA in economics from Colorado State University and a masters in public administration from the University of Colorado Denver.

I love that you are going to continue to scream about the dangers. I think it's really important and this is one of the reasons why I really wanted to have you on. I actually interviewed Dr. Carolyn Dean on a prior Anxiety Summit and she is an expert on magnesium. And this was my first introduction to the effects of fluoroquinolones and she talked about how they can completely deplete us of magnesium. And then someone recently asked me a question about fluoroquinolones on my blog and, of course, whenever I get a question and I don't know the answer I go digging and I go looking and she shared a link to an article that you had written Lisa. And when I read the article I was just absolutely blown away. Certainly by the effects, secondly by the depth of your knowledge and all the research supporting the problems that we see with these antibiotics. I had no idea the effects were so far reaching. And I reached out to Lisa to participate in the summit because I want to share this information and I think it's really important that we know about it. So thanks again for being here and thanks for being so passionate about sharing this.

Lisa Bloomquist: It's my pleasure. And absolutely I am passionate about it. Now, I was really blindsided when it happened to me. I think that most people wouldn't think that an antibiotic could really have any side effects other than maybe diarrhea, maybe C. diff. And obviously C. diff is very serious and can kill people, except people don't think that antibiotics do cause psychiatric illnesses or fibromyalgia or kind of any sort of chronic multi symptom mysterious illness or the side effects could be similar to auto immune diseases. And that's what we're finding with people who have taken fluoroquinolones. They get knocked down pretty severely with an illness that looks a lot like an autoimmune disease and people kind of go "from an antibiotic? Are you serious?" This is not okay. It's too bizarre. And it really isn't okay that people are being so severely hurt by this class of drugs. So it's my pleasure to go into this and to inform your audience and hopefully get the word out more and more about the dangers of these antibiotics.

Trudy Scott: So tell us a little bit about your story, how it affected you.

Lisa Bloomquist: Sure. So, as you mentioned I took Cipro, I actually took generic Cipro, so ciprofloxacin, back in 2011 for a urinary tract infection. I just took seven pills at that time, so two 500 mg pills a day so I guess that was about three and a half days. And at the time it felt like it didn't entirely get rid of my urinary tract infection and I just felt a little bit off. But it wasn't actually until about two weeks later that I really felt like what I described as the flox bomb went off in my body.

And let me just kind of make a little aside real quick Trudy and just say when I say flox all of these drugs, ciprofloxacin, levofloxacin, moxifloxacin, ofloxacin, they all have the word flox in them and so rather than saying people who are suffering from fluoroquinolone toxicity, a lot of people say they were floxed. So it's just a shorthand term. It's just easier to say than I was disabled by a fluoroquinolone antibiotic. So I just wanted to make that clear for people who are listening.

So about two weeks later, and I think that the delayed reactions are something that people really need to know about. I felt like a bomb had gone off in my body. My hands and feet swelled up and became incredibly painful. I went from doing CrossFit to barely being able to walk. I had big floater going across my eye. My mouth was extremely dry. I stopped sweating. Massive amount of anxiety, just huge amounts of anxiety. I had other central nervous system problems as well. Things like I lost my memory and my reading comprehension. I felt a very profound sense of weakness

and fatigue. And it was just very bizarre. Like I had gone from being incredibly healthy. I was very, very healthy prior to taking the Cipro. And after I took it I felt like I could barely move, I could barely move and I could barely think. And it was horrible. It was a really horrible. It was a very, very hard time in my life. And I went through some ups and downs in those symptoms. Some of those symptoms got worse, some of them got better as time went on. But overall I got better within about 18 months after I first got sick. I considered myself to be mostly recovered and I ended up writing my recovery story and that's on my website, which is Floxiehope.com. And just putting my recovery story out of there I got some traction. And then I decided to collect some other people's recovery stories to really help people through this mess. Because there is a lot of information out there that is very scary, it's just very frightening. I think that my particular case it was incredibly frightening for me, but my case was much more mild than a lot of people's. A lot of people are much, much, much, more devastated than I was. There are people who can no longer work. There are people who are wheelchair-bound. There are people who are housebound after taking these drugs. And I wanted to give people a resource where they could have some hope for healing. And so I started my website Floxie Hope. And as you noted I've gathered up a massive amount of research. There are hundreds of peer reviewed recent research articles and hundreds of media articles as well on my website in the links and resources section. And there's really a lot of information out of there, but I think that it's not getting to everyone. So the more I could spread the word about it the better and let people know that these side effects are not to be taken lightly and these drugs are not to be taken lightly.

Trudy Scott:

Wow. What a story. And those symptoms! It's quite amazing that you say that yours is a mild case and when I hear those symptoms and the fact that it lasted 18 months - it sounds really scary and to think that other people are more affected. But I love that your website includes the word hope in it and you have this resource that offers us hope for healing. I think that's just lovely and your website is amazing with the resources that you have. So we have a speaker blog that goes with every interview. We'll make sure that we share a link to that and we'll share a link to some of the references that we're going to talk about today and provide more information so people can know about it. Because as I said in my introduction this was not something that I was aware of and I know there's a lot of other people that aren't aware of it as well. So I'm glad that we are going to be talking in more detail. So you'd mentioned a few names of the antibiotics. Give us some of the

generic names that people might be more familiar with. You mentioned Cipro as being the one that affected you. What are some of the others that we might be familiar with?

Lisa Bloomquist: I'll give you the generic and the name brand name together, or at least the name brands that they go by here in the U.S. So there's Cipro, which is ciprofloxacin. There's Levaquin, which is levofloxacin. There's Avelox, which is moxifloxacin. And Floxin, which is ofloxacin. And these drugs they're typically taken in pill form, but they are also often taken in IVs or administered to people in eye drops, eardrops, they're in a lot of different drugs. So people really need to be careful whenever they're taking an antibiotic, even if they're taking just eye drops. People have had really horrible reactions to the eye and ear drops, the topical applications as well as the pill forms and the IV forms, which you can get much more into your body when you're taking a pill or an IV than you can through an eye drop, but still those eye drops can hurt people. These drugs are known by other names in other countries and there are some other fluoroquinolones that are out there as well like gatifloxacin, honestly probably the best place to look is just the Wikipedia entry on quinolones and that can give people a whole list of all of the fluoroquinolones. I also want to mention that they're used pretty often in veterinary use as well and a lot of people's pets are getting injured and killed by these drugs. And unfortunately they're also being used in agriculture. And so unfortunately some of our meat may have some residues of these drugs in them too.

Trudy Scott: Wow. So two follow on questions. One would be the fact that you said known by other names or maybe in other products, but you mentioned earlier the word flox. So if you saw something with the ingredient and it had the word flox in it that might be something that you would think I need to check if this is a fluoroquinolone.

Lisa Bloomquist: Exactly. Exactly. That's really the best thing to do. So it's usually right in the middle of the word. Like I said there's ciprofloxacin, ofloxacin, it's in there. All of these drugs all of these fluoroquinolones have four letters F-L-O-X in them.

Trudy Scott: Excellent. And thanks for mentioning pets and the fact that it's in eye drops and eardrops. I wasn't even thinking about that, I was thinking of the oral form of these antibiotics. And in the comment about the meat, if you had grass fed and organic then we wouldn't be exposed to them. It's just really going to be an issue with those antibiotics are used in the possibly feed lot or is it more far reaching than that?

Lisa Bloomquist: You know, I think it's still decently rare in agriculture. So yeah, it was probably only be in kind of the worst of the worst of the meats out there. I know that some people have said that they've had their symptoms retrigger by eating non-organic meat while overseas and that is certainly scary. And not that I'm saying that the feedlots in the U.S. are really much better, but that's the main case where I've heard of people having their symptoms retriggered by eating meat. But yeah, I do wonder if we're getting some residues in our meat if people are not eating grass fed organic meats and eggs and dairy products. There are all sorts of antibiotic residues in all of our non-organic meat. So whether or not that problem is more specific to fluoroquinolones or if it a general problem or antibiotics? I'm honestly not sure. But I do think it is an under recognized problem.

Trudy Scott: Good to make that clarification. And as always we want to be eating quality food and certainly grass fed and organic is definitely the best choice to make for many reasons, one of them being the antibiotic exposure. Now tell us what these antibiotics are typically prescribed for. You mentioned yours was prescribed for urinary tract infection and I know that's something that a lot of people get on antibiotics for. What else are they prescribed for? And are these particular antibiotics commonly prescribed for urinary tract infections?

Lisa Bloomquist: They are commonly prescribed for urinary tract infections. And it just boggles my mind and drives me crazy that uncomplicated urinary tract infections that could possibly be treated with people just drinking a lot of cranberry juice. And I understand sometimes urinary tract infections can get worse than that and sometimes you need antibiotics. But these are incredibly powerful and dangerous and consequential antibiotics and they should only be used as a last resort in cases of anthrax or a very complicated life threatening infection that has no other treatment options. But unfortunately these drugs are not being reserved for those cases, they're broad spectrum antibiotics and so, especially in kind of walk in clinics where doctors don't have time to get to know patients and they just kind of say oh well you've got an infection; we don't have time to culture it; we don't have time to talk to you about it just here's an antibiotic that will kill everything in sight. The fluoroquinolones are often prescribed in cases like that.

And so people have gotten hurt and gotten floxed by all of the fluoroquinolones. I think this includes sinus infections. And studies have shown that no antibiotics are better than placebos for

treating sinus infections because most sinus infections are actually viral. For prostatitis there are a lot of men who are given fluoroquinolones for a very long time, large doses of fluoroquinolones for prostatitis. And often that isn't bacterial either and so they're getting hurt by these antibiotics unnecessarily for prostatitis as well. The FDA, actually in the middle of May, just announced, and this is actually very exciting for the people that are advocates of this, the FDA just announced that they are changing the warning labels to say that fluoroquinolones are not to be prescribed any longer for sinusitis, for uncomplicated urinary tract infections or for bronchitis. So that's actually very exciting. Up until middle of May 2016 they were prescribed for those things all the time. So we are making some progress. Another thing that drives me crazy is that these drugs are prescribed for people who are traveling and they're prescribed to treat traveler's diarrhea. So they're prescribed prophylactically, it's when people don't even have an infection at all they're given a prescription for Cipro to go to Guatemala or wherever they happen to be traveling to just in case they get traveler's diarrhea. And these drugs are way too dangerous to be given to people just in case. They should only be given to people when they have a confirmed life threatening infection that has not responded to other antibiotics.

Trudy Scott: Okay. So as a last resort, not as a first option.

Lisa Bloomquist: Absolutely. And most of the advocates that are out there, there are some people who are pushing just to have these drugs removed from the market. And I completely understand their prospective, but I think that a lot of people, actually I just should speak for myself. I don't think that it is realistic to ask that they get completely removed from the market because we are running out of viable antibiotics because of antibiotic resistance and just sometimes they're necessary to save a life. But I think that they should only be used when it is to save someone's life when there aren't other antibiotics available when there are other viable alternatives. It's just not appropriate

Trudy Scott: Right. And then even then though if it's a life-threatening situation and you've tried everything else and then you prescribe this medication, you can still get some of these effects so it could still cause problems - you just don't know.

Lisa Bloomquist: Absolutely. Just presentably if you're facing a life or death situation you might say that it's worth it. But gosh, I've heard some people afterword who say you know, it's saved my life and I still don't think it was worth it because now I'm going through hell.

Trudy Scott: Wow. Well, it's very exciting about the new announcement by the FDA. That's great. When I was getting ready for this interview I was doing some PubMed searches to see what some of the latest research was and I pulled up that paper that you also shared with me that was published in February of this year 2016 and it was titled *Fluoroquinolone Related Neuropsychiatric and Mitochondrial Toxicity: A Collaborative Investigation by Scientists and Members of a Social Network*. And they talked about the use of these medications, the fact that they've seen symptoms of anxiety and depression and insomnia and panic attacks and depersonalization, suicidal thoughts, psychosis, nightmares, impaired memory and their conclusion was that they were proposing that there be revised product labels describing the new serious adverse drug reactions. And they were recommending that this was added to the recommendations in terms of what the people can prescribe. Do you think this study and all these recommendations had something to do with this new change?

Lisa Bloomquist: One of the doctors who is one of the authors of this study has put in a petition to the FDA asking them to put some highlighted warnings on the warning labels for psychiatric adverse events. And he wants that warning label to say pretty much what you just listed, that serious psychiatric events, including toxics psychosis, restlessness, anxiety, confusion, hallucinations, paranoia, depression, nightmares, insomnia, suicidal thoughts or acts, feeling abnormal, loss of consciousness, et cetera, have been reported in patients receiving fluoroquinolones and that these events might start during the treatment or may be delayed and start days, weeks or even months after the last dose. And he's a doctor named Dr. Charles Bennett and he runs SONAR, the Southern Network for Adverse Reactions. So these studies offer the adverse drug reactions and he has been absolutely wonderful and instrumental in getting changes made at the FDA. He is someone who testified at the FDA on November 5, 2015, along with a bunch of other people. A bunch of victims testified at an FDA hearing back in November 2015 to try and get increased warning labels or increases to the warning labels put on. So yeah absolutely. I think the main thing that got these changes to happen was the hearing that the FDA had and their Anti-Microbial Agents Committee recommended to them that they change the warning labels and that the FDA note that these drugs are not appropriate for use for infections that are not serious, for things like uncomplicated urinary tract infection. Because seriously who wants to experience toxic psychosis or anxiety or insomnia from taking an antibiotic for an uncomplicated urinary tract infection or for a sinus infection or

whatnot? And yes, these studies, the more studies that come out the more patients that are reporting their adverse events to the FDA the better.

Trudy Scott: Excellent. So the first step was the one that you mentioned earlier where they've added the fact that these drugs shouldn't be used for sinusitis, bronchitis and the urinary tract infections. And then the next step would be adding these additional warnings that you've just mentioned that it can cause psychosis and all of these other symptoms. So that would be the next step that Dr. Bennett is petitioning to have added.

Lisa Bloomquist: Exactly. Exactly. So he has filed a petition with the FDA. He also filed another petition with the FDA asking them to add mitochondrial toxicity to the warning labels. And unfortunately the same day they announced that they would be changing the warning labels in ways that are very favorable for victims and advocates the FDA actually denied the petition to put mitochondrial toxicity on the warning label, despite the fact that there are several studies noting that fluoroquinolones cause mitochondrial toxicity. And actually in one of the FDA internal documents they pretty much flat out say these drugs cause mitochondrial toxicity. And so what Dr. Bennett and a lot of other advocates were asking them to do is just put what they had put in their internal document onto the warning label. And they denied that request and I'm not sure exactly why.

Trudy Scott: Wow. It seems so crazy. We've got the evidence and you're going to be changing the labels anyway why not just add something else because it's obviously going to be a bigger production to go and add it later on down the road once they decide that yes maybe they should do that. It just seems crazy. But we appreciate certainly the work that you're doing in getting this message out and Dr. Bennett and everyone else who's advocating for this because people need to know. And it sounds like doctors need to know as well - would you say that doctors are not aware of some of these effects?

Lisa Bloomquist: I think that most doctors, unless it's happened it to them, are completely unaware of these effects. It's one of those things that's completely unthinkable. Like I was saying earlier who would think that an antibiotic would cause psychosis? Who would think that it would cause anxiety or delirium or a multi symptom chronic illness? Who would think that people would have thyroid problems after taking these drugs? Who would think that people would have symptoms of lupus or MS? And I actually know some

people who have been diagnosed with lupus and MS after experiencing a toxic reaction to these drugs. And it's really scary but it's so unheard of. And I think that part of the reason that there's this disconnect, and part of the reason that people aren't making the connections is because there are delayed reactions. And like I was saying when I told my story, my reaction didn't start for a two full two weeks after I finished taking the fluoroquinolone and it started in conjunction with me doing two things. First my period started, and second I started taking some ibuprofen and NSAID right around that time for menstrual cramps. And it turns out that NSAIDs are contraindicated and can increase the central nervous system toxicity of these drugs. So even though it should have been out of my system by that time, obviously there was some sort of residue. For some reason my body was still reacting to these drugs. So when I took the ibuprofen, which I've taken hundreds, probably thousands of times before with no problem, it was just like a bomb went off in my body. And there also may be a hormonal connection.

Trudy Scott:

And everyone is different and depending on what's going on with you - maybe you've got a nutritional deficiency or a hormone imbalance, you know, you're at a different part in your cycle or you're taking an NSAID like ibuprofen or who knows what else you're doing. I guess we don't know what the ramifications of all these different things that could contribute to some people being more affected than others. And the fact that it's a delayed reaction is really scary because someone may be prescribed one of these antibiotics and then a little bit later they start getting paranoia or they have a psychotic break and then they're put on medication because of that and no one is tying it back to the fact that they were prescribed an antibiotic like this. So it's scary and it's really good to be aware of.

Lisa Bloomquist:

Exactly. And I think that the more patients are aware of it the better, the more doctors who are aware of it the better. There are plenty of physicians who are getting the word, but that has only been recently in like the last few years and they think that we still have a long ways to go because for the most part it still is under recognized. And I suspect that there's some sort of antibody response going on, but there is no specific test right now that shows fluoroquinolone toxicity. And so, like is the case with a lot of people when they have mysterious illnesses like fibromyalgia or chronic fatigue or even a lot of autoimmune diseases, they go into their doctor and they say everything is going wrong and then all the tests come back and they say that they're fine. And it's a really bizarre and horrible feeling when you go to the doctor and say

nothing is right and they say nope, you're perfectly fine. And you just go no I'm not fine. I used to be able to run and now I can't walk anymore. I got my masters and then all of a sudden I can't read anymore. Like something is wrong, except like you mentioned there are all sorts of individual predispositions that make some people more susceptible than others to these drugs. I really wish that there was more research and that people knew exactly what makes one person more susceptible than another. Because certainly not everyone reacts this horribly as I did to these drugs. And like I said, there are plenty of people who react much worse than I did. So yes it's hard.

Trudy Scott: Are there some people that don't react at all or would you say most people get some sort of reaction?

Lisa Bloomquist: So I think that there's a tolerance threshold for these drugs. The first time I took Cipro I didn't think that I had a reaction at all. But looking back on things I can connect the dots in retrospect. So I had these little minor symptoms like my eyelid would be twitchy and I started to have some kind of weird gastrointestinal issues kind of crampiness and the feeling of like weird fullness in my stomach. My bladder became more sensitive. But I didn't think about those things. Like I was just living my normal life. Like I was living an active life; I was doing CrossFit; I was hiking; I was running; I was going to school; I was going to work. I didn't think of any of those things as being related to an adverse reaction to a drug. And so I think if you had asked me after the first time I had taken it if I had ever had a bad reaction to Cipro I would have said no. I didn't connect those things in my mind. It was only in retrospect that I connected them. But there are some people who you would say hey have you ever had a bad reaction to Cipro you've taken it before have any of these horrible things happened to you they'd say no I ignore it all. Everyone is a bit different, but since the bomb did go off in me the second time I took it I really do think that there is a bit of a tolerance threshold going on. And a lot of people report that they were fine the first or the second time they took Levaquin or Cipro or Avelox. It was only after the third time or whatever they took it that things went really bad.

Trudy Scott: And this is good to be aware of and I think having people report their effects is important because then we're going to start to learn what the problems are because until you do that we're not going to know. So I think it's important if someone is affected by it certainly to go back and think about what happened the first time you took it, but then to be reporting this. And then we're going to share ways that people can report this so we can get more

information so we can be learning more about this. I wanted to go back to one other thing that you said and that was you had said that your reaction was a few weeks after taking it, but for some people it could be even months after they've taken it. So that's going to be really hard to tie it back to the antibiotic.

Lisa Bloomquist: Yeah. Absolutely. Absolutely. And I've heard some people who have had tendon ruptures months or even years after they finished taking the drugs. And they just kind of do a process of elimination and go like well I'm decently healthy; I'm decently young; I'm not so athletic and that I should just be spontaneously rupturing tendons, it must be this drug that happens to have a black box warning on it for tendon ruptures. And that's actually something I haven't mentioned. These drugs have a black box warning on them, which is the most severe warning a drug can have before it's taken off the market. Noting that people spontaneously rupture tendons while on these drugs and these tendon ruptures can happen along time afterwards too. And I think that those muscular skeletal side effects and these side effects on tendons are well known enough that a lot of doctors tell their patients, you know, take it easy while you're on this drug and the doctors aren't realizing that okay take it easy for the rest of your life after you take this drug or you may rupture a tendon is really what they should be saying to people. Would athletes ever take it if they heard that? Would anyone who values their ability to be athletic ever take it if they ever heard that? No I don't think so. So people really need to realize that that is one of the potential consequences. They could go from being an athletic person to not really being able to move very much. And like the muscular skeletal consequences that these drugs are decently well documented, and actually the central nervous system consequences.

To get a little bit back to the anxiety issues and the central nervous system issues, they are decently well documented. The effects of these drugs on GABA neurotransmitters is documented in several journal articles, except I think that just the word has not gotten out to many doctors or patients that these drugs can cause anxiety, depression, insomnia. Insomnia is a big one. If someone is suffering from insomnia after they've taken an antibiotic they should think about or go check their prescription records and to see if they took one of the fluoroquinolones because it's a very common effect of the fluoroquinolones. Panic attacks, brain fog, like I said I lost my reading comprehension, which is super bizarre. So like I lost my memory as well.

Trudy Scott:

Wow. That's just really scary. And it's amazing to think that you've recovered. What really piqued my interest when I read your initial article was the comment there that you said some of these effects can be as severe as when someone's on benzodiazepines. With benzodiazepines you're building up tolerance and then they're having major issues trying to withdraw from the benzodiazepines and it's something that I'm very vocal about. For those of you that don't know benzodiazepines are primarily prescribed for anxiety and often for insomnia and it's a class of drugs that can cause really big problems for a lot of people. And I've heard from a lot of people in the benzodiazepine community share that this class of antibiotics can actually be very detrimental to those that have been on benzodiazepines. Again, it might be this combination of drugs that are making symptoms worse. Have you heard stuff to that effect?

^Lisa Bloomquist:

Absolutely. Absolutely. People who have gone through benzodiazepine withdrawal before should never take a fluoroquinolone because essentially it can throw people right back into the benzo withdrawal because it has very similar effects on people's GABA's receptors as what happens when people go through benzodiazepine withdrawal. And as anyone who has been through benzodiazepine withdrawal will tell you it's a multi symptom chronic illness. It's not just you feel a little bit dizzy or something like that, and dizziness can certainly be a part of it, but it can affect your muscles, it can effect every single part of your mind. A lot of these psychiatric effects that we've been talking about like the horrible insomnia and horrible anxiety can be a result of GABA neurotransmitters being downgraded. And that is one of the things that happens with fluoroquinolones. And interestingly, like I mentioned taking ibuprofen, NSAID potentiate that - one article said by 3000 percent. And so if people are taking NSAID and fluoroquinolones concurrently, goodness that can just fry your GABA entirely. So I'm looking at an article right now. There is an interesting article in the *British Journal of General Practices*. This was back from May 2008 so several years ago. It says fluoroquinolones compete directly with benzodiazepine for the benzodiazepine receptors by displacing benzodiazepines and pertaining an acute withdrawal effect. Alterations in the GABA aid benzodiazepine receptor complex. During benzodiazepine tolerance status. They increase fluoroquinolone induced stimulation of the receptor complex, so to just completely over simplify things. People are more familiar I think with benzodiazepine withdrawal then they are with fluoroquinolone toxicity. Just to let people know they do very similar things to

GABA is what happens with benzodiazepine withdrawal. And goodness, you don't want to do that to people. It's horrible.

Trudy Scott: Very horrible. Now you mentioned that people who have gone through benzo withdrawal never to take any of these antibiotics and I would assume that would also apply to someone who is currently taking a benzodiazepine?

Lisa Bloomquist: I think that certainly to be on the safe side. And I think anyone with a history of any sort of psychiatric illness should not take fluoroquinolone. It's just too risky.

Trudy Scott: Okay. Good. I'm glad we're talking about this. So you mentioned a few mechanisms here. You talked about the fact that it affects GABA receptors. You mentioned wanting to put the label talking about mitochondrial dysfunction. Can you tell us a little bit more about some of the adverse effects in terms of some of the mechanisms? We talked about magnesium at the beginning, let's just talk a little bit about some of the ways that these fluoroquinolones can actually cause anxiety and psychiatric problems.

Lisa Bloomquist: So those are the main ones. You mentioned magnesium depletion at the beginning and Dr. Caroline Dean - she's been really wonderful. She's written a couple of articles about fluoroquinolone toxicity and the role that magnesium plays. Magnesium seems to help most people. There is no specific protocol that seems to help everyone except magnesium does seem to help people more than just about anything else. And we have trouble calming down if we don't have magnesium. Our GABA needs magnesium in order to work correctly. And so depletion of magnesium from the body is a potential way that these drugs can wreak havoc.

Just to kind of back up, if you look at the warning label for any of these fluoroquinolones, for Cipro, Meticillin, Avelox, Floxin, any of them, the mechanism of action for these drugs is that they are topoisomerase interrupters. And topoisomerase is an enzyme that is necessary for DNA and RNA replication. And these drugs interrupt that enzyme. And so it makes it so that the DNA and RNA of bacteria cannot replicate. Whether or not they do the same thing to human DNA and RNA, I think that that needs to be studied a bit more extensively. Most of the scientists they know it can, except I think that very few of them, when these drugs came out, looked at mitochondrial DNA. And there was a really interesting study that actually came out in the late 1990s saying

that these drugs, fluoroquinolones, deplete mitochondrial DNA. And I am not a biochemist but I am assuming and extrapolating that they do the same thing to our mitochondrial DNA that they do to bacterial DNA. After all our mitochondria are thought to be kind of descendants from ancient bacteria, like that's how we evolved as eukaryotes. So I think that the mechanism is just should say that right there on the warning label like these are topoisomerase interrupters. They disrupt DNA and RNA replication. And for people to be taking these drugs for simple infections and it's just not appropriate. They're really, really, really strong drugs that have a very severe mechanism of action.

Lisa Bloomquist: Sounds like they certainly do. Can you please repeat that word that you used, the disruptor that's a new word for me?

Lisa Bloomquist: Topoisomerase I think. I can email it to you for the show notes. I'm happy to do that so that people can have that on hand. But I keep on coming back to that. As I explore all of these potential mechanisms of action, whether it be like the neurotransmitters getting messed up or the magnesium getting depleted or the mitochondrial dysfunction, I keep on coming back to that mechanism of action. There's also the fact that these drugs are incredibly powerful antibiotics and of course they damage the gut. And our gut microbiome, and there are more and more studies coming out about the gut brain connection. And these drugs are like a bomb to the gut. So they can affect the brain through the gut as well. And then also, as you make note from the name, these are flora fluoroquinolones, they are fluorinated drugs. And fluorine is really the ultimate oxidant out there. And it's possible that a lot of these side effects have to do with the fact that people get kind of overloaded on fluorine, that's a possibility as well. There's so many kind of desperate and scary possibilities for these mechanisms of action that I think that it boggles my mind actually that these drugs ever got approved in the first place. And I think that a lot of people just kind of throw up their hands and just to go well we don't know why it messes some people up. And I just don't think that that's an appropriate thing to do. I think we need to figure out why some people get horribly, horribly messed up by these drugs.

Trudy Scott: Yeah. And it could be someone being affected at all these different levels. I'm pretty sure with everyone it's affecting the microbiome and we know, as you say, how important that is when it comes to mental health and anxiety. And some people it may affect GABA receptors more severely, certainly if they have been on benzodiazepines or currently are. So some people are more

prone to various different effects so it's a matter of being aware that there are these effects. And as you said there's so much evidence and research showing that there are these effects, it's just a matter of educating people, doctors and consumers that they need to question if they are prescribed one of these antibiotics.

Lisa Bloomquist: Certainly. I mentioned it earlier but mention again that these drugs are also endocrine disruptors and what they do to the thyroid and parathyroid and adrenals is also a potential mechanism of damage.

Trudy Scott: And the adrenals. And presumably sex hormones as well seeing our hormones are always doing this little merry dance together, if we're affecting one that's going to have a ripple down effect to the others so presumably would affect all of our hormones.

Lisa Bloomquist: Yeah. It certainly seems too. And some people get affected more than others. Some people seem to have a higher tolerance than other people. Our hormonal balance it's such a delicate dance. And some people's body's can recover from their hormonal systems getting disrupted and messed up and other people unfortunately don't.

Trudy Scott: Yes. And I think creating this awareness is really important. Now your whole message is about education and also hope, hope for recovery and sharing this information and then sharing resources so people certainly are aware of the connection, but you also share that recovery is possible and you have recovered. It took a while for you to recover and people do recover. So tell us a little bit more about recovery so we know that there is some hope in case someone is listening and has been affected. You might go back and look and say “wow I did take these antibiotics and that's when everything went down the tubes” or “this is when my anxiety started” or “this is when the insomnia started”. So talk a little bit about recovery and then I'd like to talk about some resources that you have so people can read further. And there's some support groups and there's some people that are actually conducting research on some of the side effects. So let's talk about some of those.

Lisa Bloomquist: Yeah. Absolutely. So my recovery journey it's now fading a little bit from of mine because it's been a little while and in some ways it seems almost like it was the most magical, but that's because it was four years ago. And now that I've been better for four years doesn't seem like I was working hard at it every day, but I was working hard at it every day during the time that I was working at it. So everyone is a little bit different and what helps one person

may not help another. But different supplements help people. Things like supplementing magnesium, getting mineral levels up. There's a bit more controversy over whether or not calcium is beneficial, but it seems to help some people and not others. But magnesium seems to help with most people.

The zinc and copper and manganese and other trace minerals also seem to help people. Antioxidant supplements and antioxidant IVs have also helped people, things like glutathione IVs. There was an interesting study that noted that fluoroquinolones deplete glutathione and SOD and some other vital antioxidants. And so getting those antioxidants replaced is something that has been helpful for some people. It's not just an equation of you mitigate oxidants with antioxidants and it just works out perfectly, there are a lot of complex interactions going on in the human body, but it does seem to help quite a few people. I was personally helped quite a bit by acupuncture and traditional Chinese medicine. I took some herbs from my acupuncturists that were very helpful. Anything that can be done to calm down the autonomic nervous system, so to trigger our parasympathetic nervous system and dampen down our sympathetic nervous system a bit is helpful. So things like meditation is incredibly helpful, breathing exercises, chanting and praying and things that stimulate the vagus nerve tend to be very helpful for people. And those things I think generally fall into the can't hurt category so I feel like I can recommend those things wholeheartedly.

Just putting the caveat out there, I'm not a doctor I just am reporting what has helped other people to get through this. I think having a positive attitude and being hopeful is incredibly important. Like this is not all in people's heads by any means. There are chemical and hormonal and nutrient deficiency and microbiome things going on that are absolutely legitimate. But the more people can kind of get into a place where they feel hopeful and they feel optimistic and where they can celebrate small gains and where they can feel somewhat confident that they will survive and that they are strong human beings and that they will recover is incredibly helpful. Like our mind is connected to our body always.

Trudy Scott:

Absolutely. And I'm glad you mentioned the vagus nerve. That's fantastic and all of those tools you mentioned, meditation and breathing are great for raising GABA levels so you're getting that benefit there. And some of the minerals you talked about obviously really important when it comes to anxiety, I think magnesium, manganese as well and then glutathione is one of our major detox chemicals so having good glutathione levels is going

to also help with our detox and possibly the detox from these drugs and helping getting them out of the system.

Lisa Bloomquist: Absolutely.

Trudy Scott: I've got a question for you. Something that I use in my practice is GABA as a supplement. Using a targeted individual amino acids like GABA or tryptophan often gives people relief immediately while we're dealing with underlying cause. And I'm wondering if you've got any feedback on people who have seen the effects from these antibiotics and have anxiety and used either GABA or tryptophan?

Lisa Bloomquist: Some people have been helped by L-tryptophan and you can read about one of those people's stories, Ruth's story on foxiehope.com. She lists tryptophan as one of the supplements that helped her. GABA seems to be a bit more controversial in the fluoroquinolone affected community. And I'm not entirely sure why but would love to hear your thoughts on that.

Trudy Scott: Yes. It's interesting because certainly in the benzodiazepine community I hear mixed results. Some people say that GABA definitely helps. I know there are some benzo support groups that recommend not using any supplements and certainly not using GABA. And it may have something to do with the fact that the benzodiazepines have damaged the GABA receptors and maybe the same situation is happening with people who've used these fluoroquinolones.

And I think it really is an individual thing, as with anything. Some people are going to benefit and some are not. The thing that I always say with using of any of the amino acids is to find what's going to work for you. And it may be a very, very small amount. So I found that some people who benefit from GABA who have been taking benzodiazepines benefit from a very tiny amount. So they may open a capsule and just use a dab. So it's a tiny, tiny amount and then they can slowly build up from there. So I think a lot of people who use GABA will go out and buy a 500 mg or 750 mg capsule and that can be way too high for a lot of people. I typically start my clients at 125 mg and then some people do better on even less than that. So they may do better on maybe 25 mg, which is a very, very small amount. So I think it will be interesting to find out from the people that haven't benefited from GABA, certainly what format they were taking and then how much they were taking. I look forward to learning more because this is a new area for me and I hope to get feedback from others in my

community who've try to GABA and maybe have been on these medications. Maybe we can learn more because I think if we can provide more resources for people who are in the throes of this and make their lives more comfortable while they are recovering it will be a lot better.

Lisa Bloomquist: Absolutely.

Trudy Scott: So tell us a little more about some of the other resources that you have. I know you've got a wonderful e-book that we're going to make available to everyone. It's called *Hacking Fluoroquinolones* and we'll provide a link to that, which will be by via your website Floxiehope.com. Is that correct?

Lisa Bloomquist: Absolutely. We'd love for people to check that out. It goes over the mechanisms of fluoroquinolone toxicity in a lot more depth than what I was able to go over in this interview.

Trudy Scott: Okay. Excellent. And then there is a book called *Fluoroquinolone Toxicity Solution* that you endorse. Tell us a little bit about that one.

Lisa Bloomquist: So that one is available on the home page on Floxiehope.com and it is a really good supplement guide, especially for people who are not very familiar with supplements, especially mitochondrial support supplements. And it has helped several people through fluoroquinolone toxicity, and like I said I do recommend it. It is available on my site, again, that's Floxiehope.com

Trudy Scott: The *Hacking Fluoroquinolones* it is written by you and then the *Fluoroquinolone Toxicity Solution* is written by somebody else?

Lisa Bloomquist: Correct. It's written by a nurse named Kerri Knox.

Trudy Scott: Okay. Excellent. We'll make sure that those are available. Thank you. And then I wanted to just share that there are people doing research on the side effects and the adverse effects associated with these antibiotics and that's how I came across your work - a blog post that you had written on this website called Hormones Matter. And they are currently doing research. Can you share a little bit about that?

Lisa Bloomquist: Yeah. Absolutely. So hormonesmatter.com is a really wonderful site for many health related topics. Especially kind of the under recognized health related topics and adverse drug reactions. So they are conducting a survey of people who have been hurt by

fluoroquinolones and hoping to just gather up some data, make some connections, see what commonalities people have so that maybe we can take a look at who might be more susceptible to getting hurt by these drugs than other people. And if you just go to hormonesmatter.com and you do a search for fluoroquinolones, you could also search for my name Lisa Bloomquist on that site and you'll find any of my fluoroquinolone related articles. If you click on just about any of them toward the bottom of them as they invite you to participate in research. So that's one of the studies going on.

Another study going on has a much easier URL. It's FQstudy.info. And that's the Fluoroquinolone Effects Study. Dr. Beatrice Golomb is conducting it and she is a professor/doctor/scientist at UCSD, University of California San Diego. And she is amazingly brilliant and accomplished and with the USCD study, with her study, people get a chance to tell their story. And I think a lot of people who are suffering from adverse drug reactions, any sort of under recognized disease really want a chance to tell their story to researchers. And this gives people a wonderful chance to tell their story. So I encourage people to participate in that study. She's looking for 10,000 participants. It seems like an awful lot. I hope she publishes her results before she gets 10,000 participants, but the more the merrier. If people have ever taken a fluoroquinolone please participate in that the study.

Trudy Scott:

Great. Thank you for sharing that. And then you mentioned Dr. Bennett earlier and his testifying at the FDA and this organization called SONAR, is there a website that people can go to to participate or contribute or get involved if they want to get involved or get involved in some of the activism work that you're doing?

Lisa Bloomquist:

You know, I apologize I don't know Dr. Bennett's information or the SONAR information. I think that if people just Google SONAR, Southern Network for Adverse Reaction, SONAR, I think that they should be able to locate him and maybe get in touch with him and contribute to his work. That would certainly be appreciated. There's also an organization called The Fluoroquinolone Vigilance Foundation and it's a nonprofit organization that advocates on behalf of people who are affected by fluoroquinolones and also pushes for research and helps to facilitate research. Their website is Saferpills.org. That one is also easier. Just Saferpills.org and that's a wonderful site. Also there are a couple of Facebook groups that are very active. The biggest one is called The Fluoroquinolone Toxicity Group. And there's a

link to that group through the homepage of my website Foxiehope.com. But also if you just search on Facebook for The Fluoroquinolone Toxicity Group you should be able to get it. And there are I think about 5200 members right now. So it's a big group and it's growing every single day. So that's a great place for support.

Trudy Scott: Wonderful. And then you manage The Fluoroquinolone Wall of Pain, what is that?

Lisa Bloomquist: So I manage a website. So there's The Fluoroquinolone Wall of Pain on Facebook, which was started by a woman named Tammy Lucas. And it has gained quite a bit of traction. And then I took a lot of those stories, with her permission, and put them on a website and it's Fqwallofpain.com. And so I manage that site as well. So if anyone has a story that they'd like to share about fluoroquinolone toxicity and what it has done to your life, pain it has caused, I'd be happy to have that on my website on Fluoroquinolonewallofpain.com. Also Foxiehope.com has stories of recovery and also a lot of other information. I really love to hear recovery stories. If anyone listening to this has a recovery story that they'd like to submit the more the merrier and I'd love to share them. And then one more resource that I just want to share it with people, there's a great website out there called Fluoroquinolonethyroid.com. And it is a fascinating kind of in-depth case study written by a woman who has used herself as kind of a case study. She does have a medical background and she was severely hurt by fluoroquinolone and the information that she has on fluoroquinolonethyroid.com is fascinating and insightful so I do recommend it to people.

Trudy Scott: Excellent. What fantastic resources. And I must say your website is amazing and it's good to start reading if this is something that you think is effecting you. And then all these other great resources that Lisa shared are just fantastic. Thank you so much for sharing these. This has been absolutely fantastic. I learned so much just interviewing you and I've learned so much just getting ready for this interview and I appreciate having the opportunity to share this with my community and get this message out in a bigger way because more people need to know about it. Any final words of wisdom for folks that are listening?

Lisa Bloomquist: Just I want to let people know that there are safer alternatives in most cases. I'm not trying to be anti anti-antibiotic. There's a lot of gray area. I certainly realized that antibiotics can save lives, but they also have consequences and those consequences need to be

paid attention to. And fluoroquinolones are particularly consequential antibiotics out of all of them. So please if possible use some of the safer alternatives first if at all possible and know that these multi symptom chronic disease adverse reactions are real and be careful.

Trudy Scott:

Great. And have hope. I love that you have that aspect. And I like that you're wanting people to share their stories of how they've been affected, which I think is important because when you've got these things happening hearing that someone else has gone through a similar situation I think is encouraging. You think well I'm not going crazy; there is a reason for this; no one believes there's anything wrong but there is actually something wrong. So from that aspect I think it's good, but the fact that you want to share recovery stories as well I think is great because that gives people hope. And there is hope. There's always hope. There's always a solution. It's a matter of figuring out what was the trigger that caused the issue in the first place and getting to that root cause. And this whole awareness that we are creating by having you speak on the summit and the work that you're doing is going to hopefully prevent other people having an issue with this in the future.

Lisa Bloomquist:

Absolutely. And I really appreciate you having me on the summit and having the ability to reach your audience. I really appreciate it Trudy. Thanks for having me on.

Trudy Scott:

Thanks a lot Lisa. Thanks again, and thank you everyone for joining us on a really fabulous interview on The Anxiety Summit Season 4. Please join us for other great interviews. This is Trudy Scott signing off.

Speaker Blog: <http://www.everywomanover29.com/blog/antibiotic-anxiety-fluoroquinolone/>

Lisa Bloomquist, fluoroquinolone toxicity patient advocate



Lisa Bloomquist is a patient advocate who was injured by Cipro in 2011. She runs Floxie Hope, a fluoroquinolone toxicity advocacy site, and manages The Fluoroquinolone Wall of Pain. Lisa is a guest blogger for Hormones Matter and Collective Evolution, and hosts The Floxie Hope Podcast. Lisa has vowed to continue to screaming about the dangers of fluoroquinolone antibiotics until those in the medical professions start paying attention to their Hippocratic Oath, until proper informed consent is established for administration of these drugs, and until physicians stop giving them to children. Lisa is a Colorado native who enjoys the mountains, Pilates, and her cat. She has a BA in Economics from Colorado State University and a Masters in Public Administration from University of Colorado, Denver.

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.