

Demystifying PANS/PANDAS: A Functional Medicine Guide To Basal Ganglia Encephalitis

Diane Mueller, ND, DAOM, LAc with Dr. Nancy O'Hara



### Diane Mueller, ND, DAOM, LAc

Hey everybody, this is Dr. Diane Mueller, your host of microbes and Mental health. And I'm so excited about our next speaker, Dr. Nancy O'Hara, welcome to the summit Dr. O'Hara,

### Dr. Nancy O'Hara

Thank you so much. It's really a pleasure and honor to be here.

### Diane Mueller, ND, DAOM, LAc

Ditto. Ditto pleasure and honor to have you. So tell us a little bit about yourself about how you got working in this very complicated world of pants and pandas.

#### Dr. Nancy O'Hara

Yeah, it's it's kind of a long journey because I'm getting old. But you know, I started my career teaching Children with autism and I was then went on to medical school because I was a lousy teacher, it was much easier to go to medical school. But in after residency and chief residency and all of that, I was in a regular practice and it was a little child who was 4.5 with autism, who also had allergies and asthma and that typical toddler white diet. And he was the first one who got better with a change in diet. And his mom came to me and said you've got to meet this guy. And it was Dr. Sidney Baker who became my mentor. But a little bit at first it was because I was going through my own infertility and the Western medical al empathic world was not helping me. And so I thought well I can go as a patient, you know, heaven forbid diet would change anything else. But I'll see what it could do for me and changed my life. And I sat at Sid's feet for two years and then started my own practice. And then about 12 years later, which is now, almost 15 years ago, I had a young man very, very close to me who developed seizure like ticks after getting a viral infection strep throat and got bit by a Lyme positive tick all in the same week. And



thankfully because what I knew in functional medicine, I was able to throw the kitchen sink at him. But that's when I learned about pans pandas and basal ganglia encephalitis. And that has become even more of my focus over the last several years. And then when Covid hit, I said, well, I need more practitioners to do this. Not just al empathic physicians and not just functional medicine practitioners, but everybody. And so I wrote the book or started to write the book then and finally published it a couple of months ago and I think that takes us up to present day, beautiful and congrats on the book. Thank you.

### Diane Mueller, ND, DAOM, LAc

So, just before we dive into kind of the deeper stuff, I just want to make sure everybody that's listening really is very clear on what we're saying with pans pandas, basal ganglia encephalitis. Can you break down these terms tell us what they mean? That sort of thing?

### Dr. Nancy O'Hara

Yeah. Soo sweet. Oh, coined the phrase in the 19 nineties pandas, which stands for pediatric autoimmune neuropsychiatric disorder associated with strep. And that means that after you get a strep infection, like a strep throat rather than the antibodies or the proteins just attacking the germs in the throat. They also attack the brain and the specific area of the brain is the basal ganglia and that causes Tics O. C. D. Anxiety, rage, mood swings, behavioral regression, and also sometimes somatic symptoms like sleep disturbances, restless sleep or urinary symptoms like urinary frequency urgency, bedwetting after they were dry at night. In 2012, 30 practitioners got together to try to make this a less controversial subject and encompassed pandas into what was then known as pans, which is pediatric abrupt onset neuropsychiatric syndrome and that include mycoplasma viruses and other metabolic conditions like pesticides, you know, after they spread for sprayed for West Nile virus.

And people always ask, you know, well, well, my kid rages all the time is this pans or my kids 20 for is this pans. And the first thing I have to say is by definition, this is a pediatric problem. However there are many Children who are not treated appropriately early on and then continue to have the symptoms into adulthood Or they may have, and then the second is the abrupt onset and it really is the families that can say, you know, on March 13, they were great and on March 17 they were a different kid. But there are those Children who get the diagnosed, don't get the diagnosis very early but get better from it. and then get a second or third recurrence. That's more sub acute or and this is true of the adults to have Lyme as you well know or mold as you well know. And that's the onset and those two can be much more sub acute. So it's I hate to use the terms pans and pandas when it's not of abrupt onset and it's not pediatric but that doesn't mean that a lot of the same treatments and understanding don't apply. And that's why I



included in the title and why I think we need to think about what's the source of the problem and that's the inflammation in the brain, mainly in the basal ganglia the cottage in those areas.

### Diane Mueller, ND, DAOM, LAc

So then with pans and pandas. So we're saying whether it's strapped or whether it's some of these other root causes right? Some of these other infections or toxins these sorts of things whether it's strep or some of these other things it's largely the basal ganglia that's getting impacted. Right? We can say that regardless of the underlying root cause.

### Dr. Nancy O'Hara

Right. And that's where the most research is showing there are several areas around there and it's not to say that there aren't other areas affected but it's mainly the amygdala which is our anxiety C. Section the basal ganglia which is our our tiki twitchy and both are sort of O. C. D. And those areas that are at least the most affected

### Diane Mueller, ND, DAOM, LAc

And okay so thank you for that. I also think that one thing that might come up for listeners and hearing some of these symptoms, anything from your, you know, some of these more tick related things all the way to the simplicity of something like bedwetting. So if somebody's listening and they're like wow, my child has had a hard time with bedwetting, nothing we're doing is working for something as basic as this. At what point are they gonna think, okay we should actually go down a pans pandas route versus like this is a singular much more simple problem to solve.

#### Dr. Nancy O'Hara

Right and great question. I think that when you talk about panzer pandas, it has to have that with at least one other thing. So you really need to have a kid that's got bedwetting and anxiety or antics or and O. C. D. The second thing though I would say is if the mom says this was happened out of the blue, he really was dry and now he's bed wetting again. Whatever the cause I think you should be whatever the the end result, I think you should be looking for the underlying trigger and even though it may not strictly fit into pants pandas, it may well fit into mold or yeast or all the other microbes that you and I know can be involved and should be looked at,

#### Diane Mueller, ND, DAOM, LAc

Okay helpful. And then one other thing I want to circle back to that you said in thinking about this being a pediatric disorder versus something that, you know, this manifesting, say in twenties



and thirties and the symptoms are somewhat similar. So can we see situations then where somebody has say with pandas and let's say it's a basic strep infection where it seems like the strep infection was cured. Maybe they did have just a slight behavioral disorder as a kid that went away and then all of a sudden, like stress or lime or Covid almost reactivates the symptoms. Is that what you're talking about here?

### Dr. Nancy O'Hara

Absolutely. And I think that again, another very good point. And I think, you know, we always use the phrase genetics, loads the gun environment pulls the trigger. So that same child, you know, why do one in 200 Children who get strep get Pandas and not 200. Well, because there is a genetic susceptibility and it is something that then they're more susceptible to getting the same encephalitis, behavioral changes later in life or only a few months later when they get Covid or when they get Lyme disease or whatever. So, absolutely.

## Diane Mueller, ND, DAOM, LAc

Yeah, that makes a lot of sense. And I think that will help a lot of people understand that more thoroughly. So talking about all these symptoms, like I want to talk about the diagnosis and why the diagnosis of pans pandas is so controversial. So is it because of the multi systemic type of impacts? Like talk to us about the controversy around us. If you would.

### Dr. Nancy O'Hara

I think unfortunately and I think Sue says herself, she wishes she hadn't given it such a kitschy name. Because people who are trying to think seriously about things would much rather hear it be called Sweet does disease than you know, have a cute little picture of a panda. So I think that's one of the second we know that 70% of pediatricians will treat infections without a positive culture. So let's say your child goes in for a sore throat but they also have an ear infection or a sinus infection, the pediatrician or the family practitioner or any other practitioner rightfully so may treat them without getting the culture but never really know that it was strep and then six weeks three months later they devolve into these anxiety O. C. D ticks. And there was never any proven strap. And then I think the third thing is it doesn't happen right away. The strep infection may happen in November but these symptoms don't happen till January. The parents don't even think about the strep infection, let alone the practitioner they're seeing. And I think the last piece that makes a controversial, at least for al empathic doctors. You know, I I come from a tradition of physicians. Both my parents are doctors and I say repeatedly my generation and the generations younger than mine are no better clinicians than my parents generation because we have so many tests to base our diagnoses on. Whereas they just had history and physical exam and pans and pandas are clinical diagnoses. They may have abnormal test results but they may not, they



may have abnormal test results in it not be pans and pandas. They may have totally normal strep tests and it be pandas. So I think all of those things together have made it very misunderstood and I think we may do better in the future and this is something all you know in the field are thinking about just causing calling it basal ganglia encephalitis.

### Diane Mueller, ND, DAOM, LAc

Yeah. So yeah, the tricky thing, you know, I feel like so many people that are not in the medical profession and have such a hard time grasping some of these huge medical, you know, this medical terminology we use. So there's a nice city, there's something that's nice about like pants pandas, like it helps lay people. They don't have a medical background grab onto it. But then you're right. Like I hadn't even thought about that from the controversial side of things. It just definitely sounds like way less medical than a lot of the terminology we use. So in talking about roots. So we mentioned a lot of different root causes and the one that we talked a little bit offline about that. I want to make sure we spend some time on its covid just because it's a hot topic and obviously there's not a lot of, you know, decades of history on this virus. So what have you seen with Covid and working with the pediatric people that you do and the manifestation of pandas and pans. And how has that changed anything for you around diagnosis and treatment?

## Dr. Nancy O'Hara

So first of all, there are two things. One we know that Covid causes a cytokine storm and inflammatory reaction. That's that's what it does. Well, that's what we're talking about with pans and pandas. It's not the germ that's causing the problem. It's the inflammatory reaction that's causing the inflammation in the brain. So and then the second thing is Covid is a virus and we know that viruses can cause this. So I think number one Covid, you get the infection and six weeks later, if your child, most Children have very mild illnesses with Covid very mild. But if they're genetically susceptible to pans pandas and this encephalitis, six weeks to three months after the co infection, they may get these very same symptoms. And I think what it's doing is maybe helping the rest of the community to see. Yeah, there are a lot of infections, lime micro plasma strep other viruses that can do this and and help bring more people into the fold. But then second we have to help the parents and the families know that there are things that we can do. It's not just oh yeah this was covid and there's nothing we can do about it. There are things we can do to treat the inflammation help support the body around the viruses and treat the symptoms.

## Diane Mueller, ND, DAOM, LAc

So then my understanding of your work too. In addition to some of these things like O. C. D. And ticks that we've talked about is that eating like a sudden onset of an eating disorder is another



big sign right? Like that's talked about a lot from what I've heard in this you know Pans pandas community. So can you talk a little bit about that? And that relationship with the pans pandas thing as well.

## Dr. Nancy O'Hara

That's 20% of Children will present with an eating disorder anorexia. The eating disorder is usually more of an O. C. D. Type eating disorder. They're either afraid of choking, afraid of contamination all of a sudden. Only want to eat green foods or foods of a certain texture. But no matter the underlying reason they develop a very restrictive eating pattern or eating disorder. And those are the Children that I think need to be treated right away. Those are the Children that are sometimes the hardest to treat. And may need even more significant interventions.

### Diane Mueller, ND, DAOM, LAc

Okay that's helpful. 20% is high. So if somebody has this child and it's like a sudden onset like their normal eating and all of a sudden one day they develop this like I'm not eating any green food or I'm not eating any food that feels this way in my mouth. That's a big sign to them to consider something like this right?

## Dr. Nancy O'Hara

Absolutely. And there are a lot of functional medicine natural ways to treat it. I mean most of those kids as you know our zinc deficient you know most of them may have some amount of SIBO or CFO before this all started and we need to get that under control. They may have either because of the fear of choking some amount of maldigestion malabsorption or frank you know reflux. And so it's not just about labeling it the eating disorder. It's again as with everything else you and I do it's getting to the root causes and supporting them with the things that they need while we try to treat the disease too.

### Diane Mueller, ND, DAOM, LAc

So then tell me because that's a good lead into the next question which is the functional medicine approach. It's like you know a lot of approach functional medicine perspective with working with these conditions. So how tell us a little bit more about that. How does that differentiate also for people listening because a lot of people might take their you know their child with ticks or O. C. D. Or the sudden onset of strange eating patterns. They might take them to a regular pediatrician. So how functional medicine approach differs from that. And also how can people be an advocate in those situations for their Children.



### Dr. Nancy O'Hara

Right let me answer the second question first in that it's why I wrote the book and put 409 98 references in it. You can take this and even if you don't understand it totally take it to your pediatrician and say I think this is what my kid has and because there may be because there are so many references and I also offer a mentoring program with this. You know that's what I want people to figure out there. I mean I want to help people other practitioners to figure out. Dr. Wells also wrote the book back there. Super Sam and the fight against pans and pandas and that's a wonderful Children's book. It's on the level that most telepathic physicians can understand. But you know it it gives a good you know synopsis of it in a very understandable way too. So they're nice in conjunction for me it's always about a three pronged approach. So it's about treating the symptoms and oftentimes pediatricians and other practitioners will do that. Well they may do it with SSR eyes or other medications like that that we try to avoid. But treating the symptoms is important and it's very important to me that parents understand that there are so many nutraceutical and functional medicine ways to treat the anxiety.

The ticks the O. C. D. The sleep issues all of that that we need to do that and treat the one that is most significant. First then the second is treating the trigger doing the antimicrobials and that may be an antibiotic. You may convince your pediatrician or family practitioner to trial an antibiotic depending on the infection that is found. But it can also be done herbal E. And I work with two wonderful natural paths and and you know they can't prescribe in the state of Connecticut. So they use a lot of verbals that work very well but it is getting at that and then once it gets better preventing the next one from coming. So the prophylaxis and then the third and one that is usually forgotten is treating the inflammation supporting the immune system and when that's not done then the kids don't stay better. They may get better initially but they don't stay better. And again treating the inflammation in al empathic medicine is usually steroids or I. V. I. G. Or monoclonal antibodies for me there's a lot of wonderful nutraceutical herbal functional medicine interventions, curcumin corset in resveratrol you know mushrooms and and all kinds of anti inflammatories that can work really really well.

## Diane Mueller, ND, DAOM, LAc

So these three steps you're talking about symptoms trigger profile access and this inflammation are these things that you're doing in that step by step order typically or you doing a combination of these things all at one time.

## Dr. Nancy O'Hara

Usually when a patient comes in for their or the family comes in for their first visit. We do one thing that covers all of them will will treat the most significant symptom because that will help



the child and the family function better. Will try to figure out which germ it is and put something on for that. Germ either an antimicrobial rotation, sometimes an antibiotic or a combination herbal. And we also will treat inflammation. What's great is there are several anti inflammatories that also treat anxiety you know, so you can sometimes kill two birds with one stone. But we make our first best guess at that first visit. Get a bunch of tests to prove or disprove what we're thinking to support what other problems may be going on zinc deficiency, vitamin D deficiency, mold line Barton, Ella, whatever it may be. And then at the follow up, Okay, how did those first things work? The kids as bad as ever. Alright let's try something else and and keep moving forward.

## Diane Mueller, ND, DAOM, LAc

And then at that visit I think another confusing thing for people. Right? And listening is like oh my gosh, this can be overwhelming, right? It's why one of the reasons why I know you wrote your book is to help support people here because it's when we're talking about so many different things that can be the trigger the onset. So when somebody's sitting with you at that visit and somebody's being an advocate for themselves with the piece the attrition. Where are you telling people like from a test perspective like anything from the micronutrient neve levels that were mentioning that you're mentioning as well as like toxins and infections. Where are people starting? Where do you typically start people from a testing perspective?

### Dr. Nancy O'Hara

Yeah, great guestions. And I want to say first that this is a marathon, not a sprint. And it's also about living your best healthy lifestyle. And you know, it has to involve nutrition and stress management and doing that as moms and dads too. But you know, our kids are much more symbiotic with our moms and watching your stress level. I mean a lot of our parents have pTSd many years after their kids are better. But we also are very conscious of the financial constraints. Not only is this marathon and it takes a lot, you know, there's a lot of money families have put into this. So number one, we try to do as many tests as we can through quest the strep tighter zey esso and anti D. N. A. S. B. The mycoplasma, tigers, even the Rbc zinc, the vitamin D levels, you know, the rbc, magnesium, the looking at the mitochondrial if that's a problem or the thyroid or the liver or the kidneys. So we sit and take a history and physical and then try to do as much as we can through quest then in where we live in Connecticut, there can be a lot of lime. And so we will do specialty testing for borrelia Bartonella, Babesia, depending on what has been done in the past, what the risk is, which is almost universal if you live where we live. And what the financial constraints may be that we're always open to that. We will also look at mold. Have they been in water damaged buildings? Have they been in musty houses and test for that through a urine mycotoxin test? And then it depends on, you know, will usually do fully testing



and m th fr for example and other testing beyond that depends on both where the family is financially where the child is in what other tests they've done. And but if you're going to your pediatrician just ask for the quest first. You know, you may know by history that it's mold, you may you know, need to start treating Lyme but your pediatrician is never gonna order that specialty testing start with some quest get some basic stuff, get the foundation in. One of my mentors always said you have to build the foundation of the house first and if you don't build that foundation, if you don't get the gut healthy if you don't give the nutrients and the antioxidants that are needed, the house will fall down. So the rest isn't worth it. So

#### Diane Mueller, ND, DAOM, LAc

Yeah. Yeah. Foundation is so important. I think sometimes it's like, it's really, I'm glad you said that because it's so easy when we talk about these things to get so excited about finding the line, finding the mole and finding the other things that it's if we can get lost sometimes with that and without actually starting with the basics, I'm really glad you mentioned that. And I also want to just make sure everybody hung on to something that you said just about the micro nutrients and the RBC, the red blood cells. Because I know, you know, but I know not everybody realizes that the way we test for some of these micronutrients is so important for accuracy. So it's what Dr. Harris saying here and make sure it's the RV seizing the RBC magnesium, these types of things. Working with somebody that understands those basics will get you a lot more reliable test results.

### Dr. Nancy O'Hara

And I'm sure you've seen it to Diane, you'll get a totally normal plasma and the RBC zinc will be in the toilet.

### Diane Mueller, ND, DAOM, LAc

It just makes such a difference. - Yeah. Yeah. It's really important thing to point out. So, thinking about, you know, thinking about parents and having them come in with a child that they're finally getting answers to and finally getting diagnosed and figuring this out and let's say this these parents have a sibling that and the sibling doesn't have any symptoms at this point. At what point do you think that they should, that parents should say like, oh my goodness, you know, there was mold here and like, is this this other child basically on a say fast track to developing something like this. And at what point should they be thinking, well, we should be thinking about the health of our other siblings in or there are other Children in these particular situations.



### Dr. Nancy O'Hara

Great question and I think there are a few pieces to that I'd like to address. One is keep in mind that the siblings or other close contact can be the index case of the strep or mycoplasma or virus. The child that gets the symptoms is not sick at all. But the sibling is bringing it into the house. So the child that we're seeing gets behavioral changes, but the sibling has the actual infection. So I do think that the lifestyle things that treating the gut, the helping everybody be healthy through diet is important for the whole family and that needs to be done. But because there is a genetic predisposition not being hypervigilant or overall too anxious, having a higher index of suspicion for the other Children in the family is important. And we have a lot of families that come with one sibling and then the other two follow along. They usually are not as severe because the parents are picking it up earlier or the parents are understanding it better or they already have a healthier lifestyle than they did when the first child got sick. But it is important to know that and you can do a lot to keep your other Children healthy just by some of that foundational stuff in everybody. But there is a greater index of issues with siblings than non related.

### Diane Mueller, ND, DAOM, LAc

Super helpful. Yeah. Super helpful. Thank you. I want to circle back to like the beginning part of our conversations we talked about autism. So how much do you see this related to autism or say specter anybody on the spectrum. And do you ever see in cases where you're actually treating pans and pandas and all of the Marriott a root causes? Do you see Children on the spectrum actually getting out of that cycle?

### Dr. Nancy O'Hara

Yes. Absolutely. And you know I wrote an article for Aspire, the website is aspire dot care on autism and Pans pandas. And I would say first they are overlapping circles on a van diagram. Not every child with pans pandas has autism certainly. But also not every child with autism as pants pandas. I think the biggest thing in autism is looking for Lyme and mold gestational lyme as well as early lyme that may have been a problem or if you have any index of suspicion for mold mold but later any child with autism that has an abrupt change an abrupt worsening in their O. C. D. They may have had an O. C. D. All their life but it's an abrupt worsening should be looking for this cause. And I've definitely seen Children in treating any of those or several of them that have lost their diagnosis of autism because of the treatment. But they're not the same and not every child with autism has pans or pandas and I that is where I talk a lot about the abrupt changes. And the last thing I'd say about though even though you may come to see me and your childhood autism and you think they have pans or pandas and I say look it really isn't a lot of the things that we do for pans and pandas do overlap for what we do for autism. We're still treating the



symptoms were still treating the inflammation because a lot of these kids still have brain inflammation. You know it may just not be you want to put an antibiotic on that because they're got so messed up with yeast or clostridium or something else. We gotta treat the child in front of us.

### Diane Mueller, ND, DAOM, LAc

So yeah that's great. I think it's really helpful. So it's like one of these things where people if they have Children with autism they should definitely be considering pants and pandas. But if you know we don't want to say that this is always a causative types of things. There's many different things we want to be looking at in those conditions. What are your favorite treatments from a brain inflammation standpoint?

### Dr. Nancy O'Hara

So in the acute flare I do still start with ibuprofen at 10 mg per kilogram because I think you can see a change abruptly in the severity frequency or intensity of that behavioral flare. Then I will look to things like curcumin and there are many different forms liquid pills. Starburst like things You know that can be really good and and the most important thing with curcumin is making sure you have a good brand because the way that it is processed is really important and the type that you have because it comes from the spice to Merrick but all are not created equal as you know the second is corseted. And we've seen this a lot with Covid Corset in can be very helpful there and with viruses in general. And we use a lot of flavonoids in general and anti histamines because with Covid, what I didn't mention is there's a mass cell activation that's part of that inflammatory reaction. And a lot of people now are talking about mass cell mediated disorders and mast cell activation. Well keep in mind that mast cell activation should happen, it's just keeping it under control and treating it.

So that's where your anti histamines. And there are a lot of natural ones, particularly flavonoids. And then also antioxidants, particularly resveratrol which comes naturally in Japanese knotweed And and naturally in red wine which you know that's the only reason I drink it you know and and and other things along those lines that can be very helpful. I very rarely I can count on two hands in 30 years the number of times I've used steroids. I really try to stay away from it because it's transient there can be a worsening especially if they're yeasty or moldy. And then we don't provide I. V. I. G. In our practice. We do refer out for it sometimes. But I'd say you know less than 20% of the kids need to go that route And then finally my anti inflammatory that that sort of comes to pass his helmet therapy which is those H. D. C. S. And that's something that is to induce immune tolerance. It's a grain beetle worm egg that you take only once every three weeks under the guise of a practitioner who understands it and and only if the child is verbal not



constipated. Not another immunosuppressive things. You know there's a lot of caveats but it can be as helpful as I. V. I. G in some Children.

### Diane Mueller, ND, DAOM, LAc

Yeah the research on helminth therapy is really really fascinating. Alright so this particular type of helminth that you're using is this one of the ones that has like a 60 day because they all have different like cycles as far as how long they live. So this one that has a certain life cycle and like every once in a while you have to see if you want to re inoculate that sort of thing right?

### Dr. Nancy O'Hara

It is oral and it is the transit time within the gut of this one is two weeks. Usually take it about every three weeks. And the difference between this one and some of the others is this is intra Luminal. So it cannot cause an infection, it cannot get outside of the gut, it can cause an infestation which means the egg hatches into a worm and you don't want that to happen. That's why I say not nonverbal, not constipated, not immuno suppressive drugs. But yes there are many different forms of helmet therapy. This is the safest if done correctly.

### Diane Mueller, ND, DAOM, LAC

And then you're seeing, are you monitoring things like serum immunoglobulin g to see changes? Is that one of the things you're saying from a laboratory perspective?

### Dr. Nancy O'Hara

For me as a clinician and a girl from west Virginia, I still look at the child in front of me meaning that the child is better. I may or may not follow it up with further testing if the child is not better. Absolutely. And I do think immunoglobulins. I didn't mention that when we were talking about lab tests. Those are important to get early on because there are at least 30% of our Children that are immuno deficient and may not to be developing any antibodies or any proteins that can be picked up in the blood. And so if their immune deficient and don't have strep tighter elevations, that makes sense. They can't do it for anything. They can still have this disease.

### Diane Mueller, ND, DAOM, LAc

And that's where I think we can get to the vicious cycle, right? We become immuno deficient and then it's like, oh we start picking up more things and then the pans, pandas symptoms or whatever, the symptoms are getting worse and you know, so the cycle continues right. What about diet? Is there a particular like food plan that you typically recommend for these conditions? Can you tell us about that?



### Dr. Nancy O'Hara

Sure. I think nutrition is really important for absolutely all of us and the more we can have an anti inflammatory diet the better. And what I mean by that is good proteins, good oils, good amounts of vegetables, some fruits and less carbs and are, you know, what's our standard American diet sad, but also a lot of carbs in the morning and kids need more protein, more vegetables. So that's where we usually start and try to have one thing that they can change, you know, especially because we were talking about the restrictive eating disorders. We don't want to go over the top and restrict them too much. The second thing I would say is that, you know, as somebody with celiac, I think all of us should be gluten free and pretty much dairy free at least fluid milk. But again at least gluten light if the family can and talking about other good gluten free sources. And then after that we move on, if a child has a lot of yeast overgrowth, we may move on to a gap in psychology syndrome diet or an S. C. D. A specific carbohydrate diet. The body ecology diet can be very good for some families harder in kids. And but really it's about just decreasing processed foods, eating as much whole unprocessed fresh foods organic as possible and really increasing proteins, vegetables, oils as in a good Mediterranean diet.

### Diane Mueller, ND, DAOM, LAc

So it sounds like if somebody is just like tapping in and getting started with this dietary approach. Like really just getting processed foods out, sticking with you know, good protein, good veggies, getting the card load down, especially gluten is like a good and then you know getting dairy out as much as possible. It's kind of a good foundational starting point. Right?

### Dr. Nancy O'Hara

Exactly. And I think the last thing I would say is you know like in the failsafe diet which is removing this little it's the flavor enhancers thing. The means things like that. Look at what your child might be sensitive to. You don't need a big blood test, it may just be a child craves that which they are most sensitive to. So if your child is craving the first kid I saw in my functional medicine practice crave bananas and I was about to put him on a stimulant in my old practice. And I finally did a dietary history in my functional medicine practice. He was eating nine bananas a day, we took the bananas out. He didn't need the stimulants anymore. So see it may even be a good food, but if your child's craving something there, there may be something in their system that's not absorbing it appropriately, digesting it appropriately and may need to be removed.

### Diane Mueller, ND, DAOM, LAc

So the next question is, is there hope? Is there hope for recovery for these people?



#### Dr. Nancy O'Hara

There is hope and I never want to give false hope. But I think, you know, the first thing is that, that in our office, the most important instrument is a tissue box because I think, you know, one thing Sid taught me was if you listen, they will come. And the first thing is listening to where the families are, where the parent is and helping them help their child reach their fullest potential. But there's definitely hope it's not a straight course. This is a relapsing and remitting disease. We try to help people know when and how there may be problems, you know, when they get braces on when they get a viral infection and try to minimize the effects of that. And then support them if they do get a worsening. But there is definitely hope and if you're not being listened to by whoever your practitioner is, look for somebody else, there's so many wonderful practitioners out there, naturopaths, chiropractors, nutritionists, dietitians, you know, therapists, you know, and pediatricians and family practitioners, you know, but but feel heard. And know there is hope.

### Diane Mueller, ND, DAOM, LAc

So when somebody has a child that has recovered from this from the hope perspective, like what do they need to be doing and thinking about to prevent something like where we talked about at the beginning of like all of a sudden they're in their twenties and thirties and all of these symptoms come back. How from a hope first effective do they orient to this whole thing that I think we both probably see in our practices around like, oh my gosh, what if it comes back? What if it comes back? Right. So can you talk about that perspective too?

### Dr. Nancy O'Hara

So, first of all, if a child is diagnosed with this disease before puberty, most likely at puberty, they will improve. They will, they will not be as susceptible if they get it around puberty or after puberty, then usually they get better if well cared for in that interim, by the time they're 21-25 when the blood brain barrier closes. But that's why we talk a lot about lifestyle. That's why we talk about meditation, mantra says cognitive behavioral therapy, diet, you know, good sleep, good exercise because I think even for the Children I've taken care of for 20 years that are now in their twenties and thirties, those that learned how to take care of themselves. Moms included are doing much better now and they have the resources when they go move into a moldy dorm room to know.

Okay. I gotta start taking my charcoal. I got its start taking my blood if I honor my neck detoxify myself, I gotta get that air purifier and they're on it when they get exposed to covid. They have that acute viral protocol that has the antioxidants and stuff like that in it where they can nip it in the bud, so to speak. And trust yourself as a parent, you know. So much of this time we're second guessing ourselves and I didn't do enough and the show Dakota would does and if I would have



found it sooner or treated it sooner, my kid wouldn't be suffering now, forgive yourself, you know, follow those who seek the truth but flee from those who have found it and and look for the serenity, the courage, which I think all of our parents have, but also the serenity and accepting, you know where we are at that moment and it is okay and just do the next best thing the next day.

### Diane Mueller, ND, DAOM, LAc

Thank you for bringing that up. I think it's a really, really, really important point because it can be really hard to go back down in history and why did I not know this sooner and all these types of things. So thank you for that and thank you for being here. I wanna make sure everybody knows that all of your information will be on your speaker, speaker bio on the summit site. So information about how to purchase your book, your membership, working with you, all, All these types of things. Is there anything you wanted to tell us though about how it looks to work with you, what it looks like to be in your membership, anything that you wanted to share with us?

### Dr. Nancy O'Hara

Sure. You know, you can certainly start with the book. The membership is videos about 30 of them that I've developed and they're all 2-3 minutes long so you can watch one and forget about the other 29 and get them at different times and they will be updated annually. It also includes six lectures on mold Lyme case studies, pans, pandas, pots, which we haven't talked about today, which often in the chronic kids is a problem flow chart, which sort of is a, just a one page guide to how to get from here to here, where your kid is better, and live Q and A's throughout the year, a lot of things and that's just an annual fee for that membership. The mentorship can be one on one or me and a bunch of people to sort of go through a case or to sit with me in my office or me to sit with the practitioner in their office and go through, you know what's going on, where my stuff, what am I not doing? Right? And so I've tried to develop something that can be really helpful for a lot of people where they are not just, you know, when they're sitting there in the doctor's office, but at three o'clock in the morning when they're up worrying about things. So.

## Diane Mueller, ND, DAOM, LAc

Perfect. Thank you. And just so everybody's understanding, like if you're whether you are a parent, a patient, somebody that's looking for help or you're a clinician that wants support. There's lots of options for you of of how to work with Dr. O'Hara. I do, I was on the road to wrap this up, but since you mentioned pots, I think it's a really good thing for us to touch back that way for a second. So you don't mind us going in reverse and just saying a couple of things about pots. I think it's a super important topic.



### Dr. Nancy O'Hara

No problem. Before I wrote my book, the title of all my talks was pots and pans, because it was not just because it was cute, but you know, because I have a long waiting list because and that's why I wrote this book too because I we need to get people seen sooner. But because I do and because people have also found me after, they've seen three or 13 different practitioners often they come to me long into their illness. And many of them have pots or dis Audino me a pot stands for postural orthe attack Ortho static tachycardia syndrome basically where you pass out when you stand up. But it's really about dis autonomy A the dis regulation of the automatic or autonomic nervous system. So you can have a high heart rate when you shouldn't, you can have temperature dysregulation. You can have abdominal, you know like the butterflies in your stomach, you can have blood pressure, dis regulation and it's all about the adrenals. Just not, you know, they're just being insufficient. They've just taken too much of it. So a lot of herbal adapted gens like Ashwin Ghana rodeo ola can help nerve in tinctures can help good fluids, you know salt which we often don't have enough of B vitamins, micronutrients exercise, especially even if a kid won't go out and do a lot of exercise just sitting there and and squeezing themselves. You know, doing isometric, isotonic exercises can really help this. But the first step is is recognizing it and some of that lethargy, some of that variability in their moods may actually be pots. So we got to ask about that too. So thanks for reminding me, as I as I mentioned it. So that's great.

#### Diane Mueller, ND, DAOM, LAc

Yeah, pots and pans. That's so cute. I love that. What else. Anything else you want to make sure we cover today and anything else you want to make sure we leave with?

### Dr. Nancy O'Hara

I think that the biggest thing is a there is hope B. It's not about one germ. Don't focus on strap, you know, we gotta clean up the gut, clean up the diet, you know, and be mindful of taking care of you as a parent. Because that also, you know, it's like putting your oxygen mask on. Who do you put it on in the airplane? They always tell you not your child, you first. So don't forget about you in this equation with your child.

### Diane Mueller, ND, DAOM, LAc

So I love that. What a great way of concluding. Thank you so much for being here today with us Dr. O'Hara and like I said, everybody, you can find her information in the speaker's bio and thank you again.

#### Dr. Nancy O'Hara

Thank you. Really appreciate it.