# Could It Be PANS/PANDAS? A Pediatrician Explains the Signs & Solutions Transcript

(Transcripts are generated by AI and may contain errors)

## Introduction to PANS and PANDAS

There's lots that we can do for this disease if we just understand that this is how it happens. It's a tilt. It's a change in the immune tolerance. In specific children when they get exposed to these things.

So we have to look at how we treat it. And in the way I look at things, it always has to be a three pronged approach. It's not about just putting an antibiotic on.

It's not about just giving IVIg or steroids or anything like that. It's first treating the symptoms. And I think there are a lot of nutraceuticals, herbals and botanicals that we can use effectively to treat this.

And there's a lot of evidence based research that say that they work. Welcome to Doctor Talks, the podcast where every episode leads to a healthier you.

Join us as we navigate the world of optimal health. Uncovering groundbreaking strategies to conquer chronic disease. In each episode, we'll bring you the latest insights from leading health experts, medical innovators, and wellness warriors.

If you're seeking to transform your health journey, or if you're looking for answers to burning questions, you've come to the right place. Get ready to unlock the secrets of lifelong health and vitality.

This is Doctor Talks, real talk from real doctors on the issues that matter to you most. Hi, everybody. I'm Doctor Nancy O'Hara, and I'm starting this podcast Demystifying Patterns in Pandas.

For those of you who know me, you know how passionate I am about this disease. And for those of you who don't, I want to hope to help you see this disease as something that is challenging but treatable and real.

You know, everything that I do now is looking at post Acute Infectious syndromes, PBS, or what we call pandas or pandas. Now, pandas was coined by Susan Guido in the 1990s and stands for pediatric autoimmune neuropsychiatric disorder associated with strep pandas.

That's when you get a strep infection. And rather than getting the fever and sore throat, instead you get neuropsychiatric symptoms like anxiety, OCD, eating disorders, tics, etc..

And then in 2012, we tried to make it less controversial and the name was was more encompassing and called Pans Pediatric Abrupt Onset Neuropsychiatric Syndrome and included other infections like Mycoplasma viruses, etc..

So what I'd like to do today, for those of you who are not familiar at all with pans or pandas, is just give you a brief background. So we're all on the same page as we get started.

Over the next many weeks and months, I'll be interviewing experts in the field physicians, naturopaths, therapists.

## Diagnostic Criteria and Core Symptoms

I'll be interviewing advocates and parents and even children that have been through this disease and come out on the other side. So I'm open to interviewing anybody that you think may be valuable for this podcast.

So please write in and let us know. And please listen. There's so much that we don't know, but so much that we do and that we're learning and doing to help these kids.

And that's really my mission. It takes a village and it takes all of us understanding with compassion and knowledge how to treat these kids, how to diagnose them, and how to help them and their families get better.

So I want to share my screen now and show you a couple of the details that I think are important in in taking care of, of our kids. So first of all, what are the diagnostic criteria of pandas and pandas?

First, by definition, it has to be an abrupt or dramatic onset or recurrence of OCD. And what's OCD? It's not just perpetual hand-washing. It's not just fears of contamination or wanting to turn lights on and off, or open and closing doors, or counting or hoarding or any of those things.

It's also intrusive thoughts. So there are many types of OCD, and we'll be talking to experts in the field about that. And we'll also be talking to experts about those who are not in the pediatric age group, and those who do not have an abrupt onset, but more of a subacute onset.

And why and how that can happen. It can also, as I said, be the abrupt onset of a restrictive eating disorder. This isn't your usual anorexia. This is more of an OCD eating disorder, where all of a sudden they're afraid of choking or afraid of contamination, or only wanting to eat a certain color or size or, healthiness of foods.

But it's an abrupt onset of that, for sure. And those can be some of our most severely affected kids. And then you have to have two of these symptoms.

Separation anxiety. A child that was going to school easily now will leave mom's side, a child with an abrupt onset of depression or rage or aggression or mood instability.

A child with behavioral regression that all of a sudden is talking baby talk, or an 11 years old only want to watch the videos that they watched at age two.

The sensory and motor abnormalities. This is where the tics come in. Or really handwriting deterioration. So if you have had a child that has a change in their behavior, an abrupt onset of anxiety, tics or depression and their handwriting changed.

Think about pans or pandas. They can also have an abrupt onset of school performance, changing of A. D. D. or ADHD, of processing issues, memory issues, visual spatial issues.

And then, especially if they have one of those together with what I call somatic symptoms. So urinary symptoms like they start wetting the bed when they were previously dry at night, or they're complaining of urinary frequency or urgency, or they start having sleep issues where they can't get to sleep at night, or more importantly, have what we call REM disinhibition, where they're very restless sleepers.

They don't get into that deep sleep. And when they do, they're all over the bed. The sheets are on the floor. They're one end of the bed when they started at the other.

And so when you have one of these somatic symptoms, the urinary or this sleep together with one of the others and OCD, that's this disease. So think about that in our kids.

So I learned in pictures and in a podcast. Many of you are just listening. But some of you are watching this. And so I wanted to give you this graph. I'll explain to it to all of you that are just listening.

But, you know, I always joke that that, you guys out there, the weaker gender, and boys outweigh girls in a lot of these neurodevelopmental and neuro psychiatric, issues.

And the ratio is about 2.6 to 1. We also know there's a lot of autoimmune disease in the family. Moms with autoimmune thyroiditis, grandparents with diabetes, rheumatic fever, even, which is the prototype of of this disease, inflammatory bowel disease, like Crohn's and rheumatoid arthritis and many others.

And you may see autoimmune disease in the child. Kids that have allergies or other autoimmune diseases before they get pans or pandas. And many of these children will have chronic upper respiratory infections or sinus infections.

And that leads to the breakdown of the blood brain barrier, which is at the crib, a form plate sort of at the top of the nose. And that's how the the proteins or the antibodies from the immune system get into the brain and attack that.

And I'll talk about that more in a minute.

## Triggers, Causes, and Immune Mechanisms

But 80% of these kids will have sleep disorders, insomnia, nightmares, refusal to sleep alone of abrupt onset, 98% will have behavioral regression with baby talk tantrums, playing only with younger children or siblings.

90% have urinary symptoms. The and your recess, which is wetting the bed at night when they were previously dry urinary frequency or urgency 90% will have an inability to concentrate or many memory problems.

60% will have learning difficulties. 60% will have that short term memory loss. 70% will have an abrupt onset of hyperactivity or inattentiveness. 60% will have an abrupt onset of aggressiveness or rage.

80% of these kids will have a hyper alert appearance that that deer in the headlights. That's because their adrenals the the fight or flight mechanism of their body is just so overwhelmed.

And and so in shock from the abrupt onset of this, they will have handwriting deterioration in 90%, tics in 70%. The eating disorder, as I said, in at least 20%.

And then there are some kids that are present with an abrupt onset of hallucinations, auditory or visual hallucinations. And these are the some of the kids that often get admitted to psychiatric hospitals or get stuck in any ER with a psychiatric diagnosis.

So please be aware of this, of the abrupt onset of it, and we'll talk about that in the podcast coming up. I also want to talk a little bit more in depth about the causes and triggers of this.

And I call it BGP because that's really where it happens. The inflammation is in the basal ganglia, a part of the brain that is responsible for the tics, the anxiety, the OCD.

And so when the brain gets inflamed in that area by the immune response, the dysregulated immune response to any of these germs or other triggers, then we get what's called basal ganglia encephalitis or pans or pandas or pies.

Doesn't matter the label, as long as we understand that this is recognizable. It's a real disease and we can treat it. So the main cause and the only cause of pandas, because that's the neuropsychiatric disorder associated with strep, is group A strep.

This is not group B strep. This is not strep on a stool sample. This is group B strep usually in the throat. And sometimes when a sibling or a close contact gets strep throat the child the this child that gets pandas will only have behavioral changes.

So make sure if there's behavioral changes in a child that's been exposed to strep that you ask your pediatrician for a throat culture. Now you can also see it 7% in the literature, 20% in my practice of rectal strep.

That's when they get that red anal ring, that red ring around their anus. And that should be cultured too. If that's there, the strep may be in the sinuses, sometimes in the urinary tract or on an infected skin lesion like psoriatic, eczema or an area that's broken down and gets infected.

But group A strep is the cause of pandas. And the most common trigger. But other triggers that can cause pins are mycoplasma. And we've seen a lot of this in this past winter.

And that's one that often causes sinusitis bronchitis, pneumonia. But again, in our index case in our child it may just look like behavioral changes. So ask about mycoplasma get it checked.

And viruses. We've certainly seen this with Covid. We've seen kids that present to psychiatric hospitals with hallucinations. And they did a Covid swab and they were positive for Covid.

And they needed to be treated with for Covid with intravenous gamma globulin or monoclonal antibodies. And their neuropsychiatric symptoms went away. There's a lot of ways we can treat these viruses besides those heavy duty interventions.

And we'll be talking about that in this podcast. We can also see it with other viruses. Really any virus flu, measles, mumps, rubella, chickenpox, herpes virus, EBV and CMV that causes mono like illness.

So any time we have a virus, it can trigger in a susceptible child the the basal ganglia encephalitis. And then one of the diseases that can cause a more subacute onset is certainly what are called are Lyme diseases.

And these are really tick or vector borne diseases. So Borrelia and then the other that are often termed co-infections Bartonella and Busia, those can be an abrupt onset, but they also can be more subacute and especially in endemic areas like the northeast where I am.

But really anywhere in the world there is tick borne disease and we need to look for it and we need to treat it. And we'll talk to a lot of experts in the field about this yeast and mold.

Many of you may have heard of mold and just Pooh poohed it, but it really can be in our susceptible children, a significant chronic inflammatory response syndrome that is caused by mold, mycotoxins and yeast can do it, too, and we need to look for those and treat it appropriately.

Treating a kid that has mold induced pains with antibiotics is not going to do anything. Just like treating a child with viruses, virally induced basal ganglia encephalitis with the antibiotics isn't going to do anything.

So there are a lot of other triggers besides bacteria that we need to look for and treat. Some children will have an abrupt onset after a pesticide exposure.

A chemical or other toxic exposure, or anesthesia. So again, if there's an abrupt change after any of these exposures, we should learn about that, assess it appropriately and treated appropriately.

And that's what we'll be talking about in the coming in weeks and months on this podcast. So think about if the child or the family members have an autoimmune disease, and then what was in the preceding history in the couple weeks to six weeks, even as much as three months prior to the onset of these neuropsychiatric symptoms, prior to the onset of the OCD, tics or anxiety.

What type of prodrome was going on? What changed in their environment infectious wise, and what can we do about it? Once we know what the trigger or triggers are, and one of the things we need to do is treat the immune system, and that's sometimes gets left beside.

And we need to talk a lot about that. And a child's response to immunotherapy is very important. And you know what's the first immunotherapy I use. Ibuprofen Motrin Advil I use that at 10mg/kg a usual dose.

And see if the child's neuropsychiatric symptoms get better. Does their anxiety go down? Do the tics decrease in severity, frequency, or intensity? Does the OCD decrease and if so, then that is a sign that this is an immune disease and we need to treat it as such.

I also look at, as I mentioned, the mold exposure, the exposures, the chemical exposures, the pesticides, the anesthesia. But I look at other things because many of these children are deficient in appropriate minerals like zinc and magnesium, sometimes in vitamins like vitamin D, vitamin A, sometimes they're they're also deficient in other mitochondrial, markers.

Like, they don't have enough carnitine or CoQ10. And the mitochondria are the energy cells of our body. They make every organ in our body work. And so sometimes there's underlying mitochondrial problems.

And sometimes it's secondary to the infection or the tick borne disease or the mold. So we need to look for that and treat that. And then I look at other antibodies.

We recently published a study on folate receptor antibodies. And we'll be talking to experts about that. We look at thyroid antibodies because often the thyroid like the adrenals are very affected by this disease.

And we'll see inflammation in that area too. With elevated thyroid antibodies. Some of these children may have gluten sensitivity. So we need to look at a celiac panel.

We may need to look at their predisposition to celiac. With HLA testing we may need to look at other food sensitivities or allergies. And as I mentioned before, now in the last few years especially, we need to also look at Covid.

## Treatment Approach and Supportive Therapies

So there are a lot of things that when you see a clinician that you should be thinking about and asking about and looking for, and we'll talk about that in the upcoming weeks and months on this podcast.

And then what about how this happens? So again, I look in pictures. So I've got a picture up for those of you who are on video. But for those of you on audio, let me describe this to you.

So you get a group A strep infection, either because everybody in the class has it or your sister has it. And in one out of 200 children there is a genetic susceptibility.

They have different HLA, B alleles or they have other t H7 teen differences to no necrosis or effective alpha menos binding lectin protein changes some type of genetic susceptibility that, rather than the antibodies or the proteins of the immune system attacking the strep in the throat or wherever it is, there's a misdirected immune response, what we call molecular mimicry.

In those anti group B strep antibodies cross the blood brain barrier and attack the basal ganglia. And that's what then leads to pandas with strep or pins when it's mycoplasma or the other germs and indices I showed, or most specifically basal ganglia encephalitis is inflammation of the basal ganglia.

And that leads to the things I was talking about the OCD, the restrictive eating disorder, the anxiety, behavioral regression, tics, handwriting changes, somatic symptoms.

There's lots that we can do for this disease if we just understand that this is how it happens. It's a tilt. It's a change in the immune tolerance in specific children when they get exposed to these things.

So we have to look at how we treat it. And in the way I look at things, it always has to be a three pronged approach. It's not about just putting an antibiotic on.

It's not about just giving IVIg or steroids or anything like that. It's first treating the symptoms. And I think there are a lot of nutraceuticals, herbals and botanicals that we can use effectively that treat this.

And there's a lot of evidence based research that say that they work. And I will, with other experts in the field, talk to you about this in the podcast.

We also need to think about therapy. I'm a big believer in therapy. I started my career as a teacher of children with autism. I wasn't very good, so I took the easier road and went to medical school, which I say all the time.

And probably in this podcast you'll hear me say it again. But I am a big believer in therapy and the best therapy for our kids is cognitive behavioral therapy, CBT or DVT.

That's where you're looking at the antecedents and the behavioral that happen is after the trigger. And what are those consequences. And then how can we change the behavior.

How can we help kids to find ways to breathe through work, through the anxiety or the ticks that they may be having? And then sometimes we do have to use psychoactive medications, but I want to impress upon you that we can often do this at much lower dosages and only after, in my opinion, trying other nutraceuticals to treat the symptom.

And I always look at what is the symptom causing the most problem for this family. Is it the checks? Is it that nobody's sleeping? Is it that they're urinating and wetting the bed so badly nobody can survive that?

What is it that's affecting this family the most? And I look at that and treat that one first, and then go on from there and treat all the other symptoms at the same time.

I'm looking for and removing the source of the inflammation. So often that is treating with antimicrobials, antibiotics, antifungals, antivirals, prescriptive medications, herbals, antioxidants, lots of different ways to do that.

But you have to know what the trigger or triggers are to effectively remove that source of the inflammation. And there are often many triggers because, again, it's not about the germ, it's about the misdirected immune response and treating the inflammation that comes from that.

So that's the biggest thing is treating with anti-inflammatories or other immune modulating interventions to try to help these kids get better. So we always keep that at the front of our mind.

Am I doing enough for this child? You know, my mentor was Doctor Sidney Baker. He was one of the the four fathers of functional medicine, integrative medicine, one of the people that started IFM and other supportive programs for people looking at functional medicine.

And he always said his mentor always said to him, Sidney, have we done enough for this child? And Sid always said that to me. And so I will always keep looking and helping each child.

And we're doing this podcast. So more of you can hear about this and hear from other experts in the field besides me about how we can do that, because these are all the faces of pans and pandas.

The child with a new onset of restrictive eating disorder, the child that's not sleeping at night. And so they're sleeping during the day. The trial there is an abrupt onset of separation anxiety, the child that has an abrupt onset of rage or OCD or handwriting deterioration, or A. D. D..

These are all the the the faces of pans and pandas. So as we go through the next several weeks to months looking at this disease, talking to experts in the field, I just want you to remember a few things.

One, it is treatable. Two, it does exist. Maybe that should be one, and two should be it's treatable and it takes a village. But we can help these kids get better.

I know that because I got into this disease because of my own child, who at the age of nine, developed an abrupt onset of severe tics after a viral infection, getting bit by a Lyme positive tick and having strep throat all in the same week.

We got him better.

## Closing Remarks and Podcast Introduction

And then later I realized he also had Bartonella, and then later he was exposed to mold. And then Covid. And now he's doing great. And he's an amazing young man.

And my inspiration, my teacher, my model for all of this, every day, as are so many patients and mentees and others in my world. So we'll be talking to people like Saucedo, Ebony Cornish, Jekyll, Patterson, Darren Ingles, T holler, Debbie Hamilton, Scott Antoine, Alyssa Song, Piper Dubner and many, many, many more.

Oh one person every podcast. And as I said, let us know if there are other people you want to hear from. Listened to see on this podcast. Because this is about you.

It's about helping your kids get better. It's about helping others, other practitioners, other parents, other family members. Anybody out there that's listening to this podcast, it's helping them to see that pens and pandas are real diseases, real problems that are challenging.

They can be debilitating but are not about a psychiatric illness, but rather an immune illness that we can treat effectively. So don't blame the child, don't blame the family and join us over the next several weeks and months to learn more about Pans and Pandas.

I'm Doctor Nancy O'Hara. Thanks for joining me today and I look forward to seeing you in the future. To talk more about this disease and how we can help our kids.

Thanks. Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health. Each day is a new opportunity to make choices that empower your well-being.

For more insights and strategies, subscribe to our podcast and visit our website w WW dot doctor Talksport.com. Stay connected. Stay healthy and join us next time on Doctor Talks.

Real talks from real doctors on the issues that matter to you most.