

PANDAS Syndrome: How it differs from autism

By developmental pediatrician Sue Swedo and child psychiatrist Rebecca Hommer

Today's answer is by developmental pediatrician Sue Swedo (left) and child psychiatrist Rebecca Hommer. Dr. Swedo is the chief of the Pediatrics and Developmental Neuroscience Branch of the National Institute of Mental Health, and Dr. Hommer is a NIMH staff clinician.



PANDAS turned out to be the cause of new obsessive-compulsive symptoms in our son, who also has autism. But the lack of information and awareness left his symptoms untreated for nearly 3 years. Would love you to help more people understand.

In 1998, Dr. Swedo and her colleagues coined the term PANDAS to describe [50 cases of a rare syndrome that involved obsessive compulsive behaviors](#) following strep infection.

Thank you for speaking up about your son's experience with PANDAS. For the uninitiated, PANDAS is an acronym for pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections. These disorders involve the sudden onset of obsessive-compulsive disorder (OCD) or tics in children following a strep infection such as strep throat or scarlet fever.

PANDAS may be quite rare. But some evidence suggests it could account for as many as 1 in 10 new cases of OCD in children each year. We simply don't know for certain, as the majority of cases may go undiagnosed.

Typically, children affected by PANDAS have a dramatic – even overnight – onset of symptoms. This can include one or more new movement or vocal tics, as well as obsessions or compulsions or both. Some affected children become noticeably moody and irritable, have more difficulty separating from loved ones, experience a change in eating patterns or begin having trouble sleeping or controlling the bladder.

Why do some children develop PANDAS after a strep infection?

We don't know for sure. But we're researching a theory that the mechanism is similar to that behind rheumatic fever, another autoimmune disorder triggered by strep infections.

In any bacterial infection, the body produces antibodies against the invading microbes. The antibodies help eliminate the bacteria from the body. Unfortunately, certain proteins on a strep bacterium's cell wall resemble certain proteins on human cells. This can cause the immune system to mistakenly attack healthy tissue. In rheumatic fever, the antibodies mistakenly attack the heart valves, joints, and/or certain parts of the brain.

PANDAS may involve strep antibodies interacting with the part of the brain known as the basal ganglia. This ~~we believe is what~~ causes the sudden onset of tics or obsessive compulsive behaviors.

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What is the relationship between PANDAS and autism?

So far as we can tell, PANDAS does not occur more often in children with autism than among other children. However, PANDAS may be more difficult to recognize in a child with autism – due to overlapping symptoms. Or it may be mistaken for classic OCD, which commonly co-occurs with autism.

What distinguishes PANDAS from autism symptoms or classic OCD is the *sudden onset of symptoms*. As mentioned, this can include new anxieties and compulsive behaviors.

Importantly, these symptoms are often accompanied by some tell-tale symptoms *not* usually seen with classic OCD. These include sleep difficulties, loss of bladder control, behavioral regression and loss of appetite. As we mentioned, many children with PANDAS also develop odd movements (e.g. tics), become irritable and moody or become noticeably more sensitive to loud noises or other stimuli.

What should I do if I think my child might have PANDAS?

When parents notice such symptoms – or are otherwise concerned that their child has PANDAS – we recommend a full evaluation by a pediatrician. This should include a throat culture for strep infection.

How is PANDAS treated?

The good news is that PANDAS tends to resolve on its own once the strep infection is treated with appropriate antibiotics.

Doctors are currently exploring how to treat PANDAS that persists beyond the active strep infection. Some are evaluating whether continued antibiotics might help. Others are looking at anti-inflammatory medicines. More aggressive treatments such as plasma exchange and immunoglobulin (IVIG) have been effective in treating severe, strep-triggered OCD and tics. But these treatments come with serious side effects. So their use should be reserved for severely ill patients and administered only by highly experienced health-care professionals.

In addition, standard treatments for classic OCD can help ease the symptoms of PANDAS. These include cognitive behavioral therapy, anti-obsessional medications or both.

Thank you again for your question. We wish you and your son all the best.

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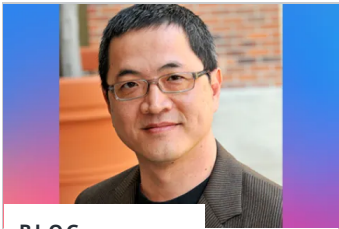
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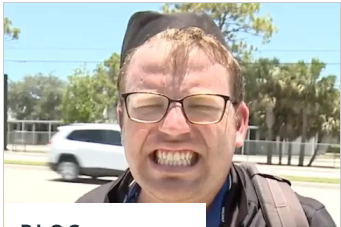
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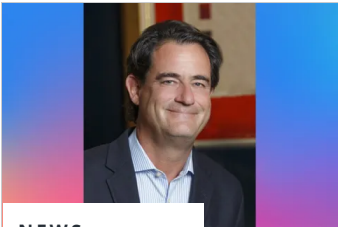
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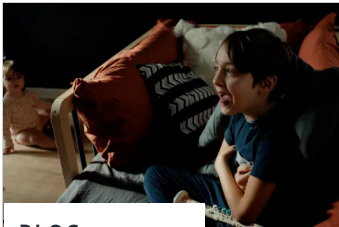
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