



ASPIRE

WHAT IS PANS/PANDAS?

PANS: Pediatric Acute-onset Neuropsychiatric Syndrome

PANDAS: Pediatric Autoimmune Neuropsychiatric Disorders Associated w/ Streptococcal Infections



PANS is defined by the abrupt onset of

- Obsessive-compulsive symptoms and/or severe eating restrictions

Concurrently with neuropsychiatric symptoms in 2 of the following categories

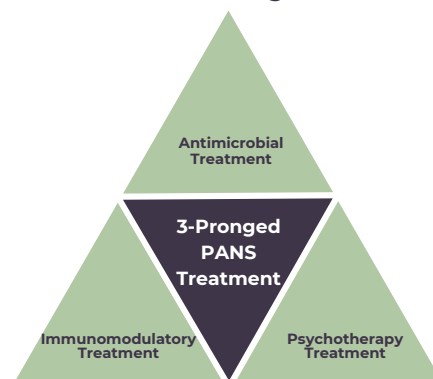
- Anxiety, separation anxiety
- Emotional lability or depression
- Irritability, aggression, and/or oppositional behaviors
- Behavioral or developmental regression
- Decline in academic skills (math skills, dysgraphia, ADHD-like behaviors)
- Sensory or motor abnormalities, tics
- Somatic signs: sleep disturbances, enuresis, or urinary frequency

PANS & PANDAS are misdirected immune responses, often with an encephalitic onset, that result in acute onset of OCD, tics and/or restricted food intake, along with other neuropsychiatric, cognitive, behavioral, or neurological symptoms.

PANS is a clinical diagnosis not better explained by another diagnosis, based on examination and history; it is not based on one or a few tests. PANS can be triggered by infections, metabolic disturbances, and other inflammatory reactions. Infectious triggers include strep, upper respiratory infections, influenza, mycoplasma pneumonia, lyme borreliosis, and many others. PANDAS, a subset of PANS, requires a temporal relationship with Group A Streptococcal infections. Not all patients have a positive strep throat culture, and examination must be followed by ASO and ADB immune responses. Onset of symptoms can occur within days of contracting strep, or within several months of the inciting infection.

PANS PANDAS is thought to affect at least 1 in 200 children. Symptom onset typically occurs between age three and puberty but can develop later. There is no age restriction on a PANS diagnosis. PANS symptoms and severity vary from child to child, and from flare to flare. Symptoms may relapse and remit and can worsen with subsequent flares. Some children can function well enough to attend school but usually require accommodations while other patients experience debilitating, life-threatening flares.

Treatment involves three complementary modes of intervention. If treated promptly and appropriately, patients can recover completely; if not, symptoms can worsen and become chronic. Individualized treatment protocols are dependant on the severity and the course of PANS symptoms along with a physical exam and lab testing.



Overview of Treatment of PANS-JCAP Vol27, 2017
Swedo, MD, Frankovich, MD, MS, Murphy, MD, MS

- Remove the inflammatory source with antimicrobial treatments
- Treat the disrupted immune system with immune modulating and/or anti-inflammatory interventions
- Alleviate symptoms with psychotherapeutic treatments as needed