

# PANS (Paediatric Acute-onset Neuropsychiatric Syndrome)

PANS is a medical condition which is triggered by a misdirected immune response causing inflammation in the brain, leading to both physical and psychiatric symptoms. Despite its name, PANS can affect any individual at any age.

PANS is a clinical diagnosis and a diagnosis of exclusion. There is currently no specific test which will prove or disprove the condition and a diagnosis is to be made based on the analysis of the patient's medical history a review of their current symptoms and a physical examination. Lab work and additional testing can be ordered to identify an infectious trigger, rule out other diagnoses, and inform treatment plans.



**PANS PANDAS UK**  
awareness support education

## ***In order for a diagnosis to be made, presentation of the following symptoms must occur:***

**An abrupt, acute onset (usually within 24-48 hours) of obsessive compulsive disorder (OCD)\* or severely restricted food intake\*\* along with two or more of the following symptoms which are not better explained by a known neurologic or medical disorder.**

- Anxiety (heightened anxiety, separation anxiety, irrational fears, panic episodes)
- Emotional lability and/or Depression
- Irritability, Aggression, and/or Severely Oppositional Behaviours
- Behavioural (Developmental) Regression (increase in temper tantrums, loss of age-appropriate language, clingy behaviour not related to anxiety).
- Sudden Deterioration in School Performance (due to difficulties with memory, concentration, hyperactivity, impulsivity, new deficits of visuospatial skills)
- Motor or Sensory Abnormalities (tics, dysgraphia, clumsiness, new sensory sensitivities to light, noise, smell, taste or texture).
- Insomnia and/or Sleep disturbances
- Enuresis and/or Urinary frequency

Whilst not part of the diagnostic criteria, in approximately 25% of cases there have been reports of Psychosis and/or Hallucinations.

## ***\* OCD may include any of the following:***

- Contamination obsessions and compulsions
- Obsessions that harm will come to others and/or related compulsions
- Sexual or religious obsessions
- Repeating compulsions
- Symmetry and exactness obsessions
- Ordering/arranging compulsions
- Counting compulsions
- Checking obsessions or compulsions
- Excessive reassurance seeking
- Need to touch, tap or rub
- Intrusive images, words, music or nonsense sounds
- Ritualised eating behaviours

**\*\* Severely Restricted food intake may be related to contamination fears, obsessional fears of choking, or other obsessional fears including a new obsession with body image or weight.**

## References:

<https://www.nimh.nih.gov/research/research-conducted-at-nimh/research-areas/clinics-and-labs/sbp/information-about-pans-pandas.shtml>

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# PANDAS (Paediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections)

PANDAS is a subset of PANS. Similarly, it is a neuropsychiatric condition which is triggered by a misdirected immune response to a Group A Streptococcal (GAS) infection which can occur in many parts of the body, not just the throat and results in an inflammation of a child's brain. Symptoms can appear whilst the infection is still present or several months later.

An abrupt, acute onset of obsessive-compulsive disorder and/or tics, particularly multiple, complex or unusual tics.

*PANDAS symptoms can then appear to wax and wane with the child experiencing flares periodically, following illness or periods of stress. The child is usually between the ages of 3 and puberty when first symptoms occur and usually appear following a streptococcal infection such as Sinusitis, Ear infections or Scarlet Fever. In some cases children can carry the streptococcus bacteria without showing any signs of illness.*

***In addition to OCD\* and/or tics, children can also experience a range of symptoms from the following list:***

- Enuresis and/or Urinary frequency
- Insomnia and/or Sleep disturbances
- Food restrictions\*\*
- Anxiety (heightened anxiety, separation anxiety, irrational fears, panic episodes)
- Emotional lability and/or Depression
- Irritability, Aggression, and/or Severely Oppositional Behaviours
- Behavioural (Developmental) Regression (increase in temper tantrums, loss of age-appropriate language, clingy behaviour not related to anxiety).
- Sudden Deterioration in School Performance (due to difficulties with memory, concentration, hyperactivity, impulsivity, new deficits of visuospatial skills)
- Motor or Sensory Abnormalities (dysgraphia, clumsiness, tics, new sensory sensitivities to light, noise, smell, taste or texture)

***\* OCD may include any of the following:***

- Contamination obsessions and compulsions
- Obsessions that harm will come to others and/or related compulsions
- Sexual or religious obsessions
- Repeating compulsions
- Symmetry and exactness obsessions
- Ordering/arranging compulsions
- Counting compulsions
- Checking obsessions or compulsions
- Excessive reassurance seeking
- Need to touch, tap or rub
- Intrusive images, words, music or nonsense sounds
- Ritualised eating behaviours

***\*\* Severely Restricted food intake may be related to contamination fears, obsessional fears of choking, or other obsessional fears including a new obsession with body image or weight.***

References:

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