What are PANDAS and PANS?
Pediatric Autoimmune Neuropsychiatric Disorders Associated with Strep (PANDAS) and Pediatric Acute-Onset Neuropsychiatric Syndrome (PANS) are neuro-psychiatric disorders triggered by an underlying autoimmune response. Frequently, students may experience symptoms after a “strong stimulant” to the immune system (NIMH, 2012) such as strep infection, flu, or even the common cold. In a student with PANDAS or PANS, the immune system is thought to mistakenly react and cause brain inflammation in the basal ganglia region (NIMH, n.d.; Murphy, Girardi, & Parker-Athill, 2014). This reaction causes neurological, psychological, and cognitive symptoms as a result of basal ganglia inflammation.

PANDAS and PANS may be treated with anti-inflammatory medications (such as ibuprofen), antibiotics to treat or prevent infection, and immune-modulating therapies (such as steroids, intravenous immunoglobulin (IVIG), and plasmapheresis (PANDAS Network, 2014). Cognitive-behavioral therapy and additional medications may also be part of a student’s treatment plan if needed.

What symptoms might my students with PANDAS/ PANS exhibit?
Students with PANDAS/ PANS may exhibit the following symptoms (NIMH, n.d.; Swedo, Leckman, & Rose, 2012; PANDASNetwork.org, 2014; Chang et al, 2015). (This list is not exhaustive, and a student’s family and/or care providers may be able to provide further details or additional information about specific symptoms, as every student is different.)

- Sudden onset of symptoms, or abrupt, “episodic,” changes in functioning
- Restricted eating (this may present as generalized anorexia or aversion to specific foods, textures, etc.)
- Obsessive-compulsive symptoms
- Motor and vocal tics
- Heightened anxiety, including separation anxiety and school-related anxiety
- Sensory issues
- Increased urinary frequency
- Handwriting changes and deterioration in school performance
- Impulsivity, inattention, and poor concentration
What accommodations and supports might be helpful to my students with PANDAS/ PANS?

Parents of students with PANDAS/ PANS have reported their students benefit from:

- Extended time
- Writing accommodations (keyboard, laptop, specially designed writing tools, graphic organizers)
- Math accommodations (calculator, manipulatives)
- Frequent breaks
- “Safe spaces” to use in the event of behavioral difficulties or acute symptom flares
- Positive behavioral supports and interventions
- Sensory supports (including occupational therapy when needed)
- Adapted or modified tasks, particularly those requiring motor control or sustained effort
- Advance planning for health-related absences, including home and hospital transitions as well as absences related to appointments and treatment

This list is not exhaustive; see school toolkit resources at PANDASNetwork.org for more information and suggested supports (See also Candelaria-Greene, 2014; Tona & Posner, 2011, available at PANDASNetwork.org).

What else should I know about PANDAS/ PANS so I can meet my students’ needs?

- Student needs and performance may vary widely from week to week/ day to day.
- Provide positive behavioral supports and actively work to minimize students’ stress. Stress can increase anxiety and exacerbate symptoms.
- Have a plan in place for acute symptom exacerbations as well as day-to-day, less intensive supports.
- Report outbreaks of illness to parents/ family; students with PANDAS/ PANS may experience symptom increases simply from being exposed to an infection.
- Report any abrupt changes in behavior, eating habits, or school performance to parents/ families.
- Students with PANDAS/ PANS may have frequent absences and benefit from strong and proactive teacher communication.

Where can I find more information?

PANDAS Network, the leading parent advocacy and research organization in the field: PANDASNetwork.org