# Background

Psychogenic nonepileptic episodes (PNEE), also known as psychogenic nonepileptic seizures (PNES), resemble the signs and symptoms of epileptic seizures but do not stem from abnormal electrical activity in the brain. Instead, PNEE is linked to psychiatric dysfunction affecting an individual's motor, sensory, autonomic, or cognitive function. They have been previously called pseudoseizures, but this term should be considered jargon as the events are real and individuals do not have conscious, voluntary control over them.

Symptoms of PNEE are considered maladaptive defense mechanisms that develop in response to an underlying functional neurological disorder; the most common being conversion disorder. A conversion disorder, by definition, is a mental health condition that causes an individual to experience real physical and sensory symptoms with no underlying neurological pathology. Individuals with PNEE have higher risk of psychiatric comorbidities including higher rates of anxiety, depression, personality disorders, and post-traumatic stress disorders.

Signs and symptoms of PNEE can outwardly resemble generalized convulsions of seizure activity that include:

- Shaking movements
- Falling
- Thrashing
- Side to side head shaking
- Weakness
- Change or loss of speech, hearing, vision
- Temporary loss of attention
- Staring off into space

Unlike convulsive seizure activity, the individual's eyes are most often tightly closed with resistance to eye-opening during the event. The individual may also yell verbal phrases. The recovery period for PNEE is usually rapid but a brief break may be necessary to gather themselves.

Treatment for PNEE may be difficult and will involve a combination of mental health psychotherapies to decrease or even eliminate the frequency of events. Cognitive behavioral therapy (CBT) is often the most effective in managing the underlying psychiatric symptoms. Treating PNEE with antiseizure medications may exacerbate the symptoms and cause unnecessary side effects.

A small percentage of individuals may be diagnosed with PNEE as well as epilepsy. It is important for school staff to understand the diagnosis and key characteristic features to distinguish between PNEE and epilepsy as interventions will be different for each.

### **Top Takeaways for School Considerations**

A psychogenic nonepileptic episode (PNEE) resembles an epileptic seizure in physical signs and symptoms but is due to psychological distress. PNEE is the most prevalent type of functional neurological disorder (FND).

The student is not feigning or faking the event. The brain "converts" the effects of the underlying mental health issue into disruptions of the brain.

Educating staff and students about PNEE is important as students often experience school related stress, stigma, and misunderstanding from peers and school personnel. A school management response plan should be developed.

When the student is experiencing symptoms, do not panic. Maintain safety while avoid drawing attention to the student.

Limiting verbal and physical interactions with the student during an episode is important.

Students should be encouraged to return to the activity in which they were previously involved as soon as possible following an episode, though a brief break may be needed.

School staff should be educated on the student's learned or preferred coping strategies (e.g., mindfulness, deep breathing, distraction) if they anticipate an episode or experience triggers.



# Kennedy Krieger Institute's Specialized Health Needs Interagency Collaboration

The Specialized Health Needs Interagency Collaboration (SHNIC) program is a collaborative partnership between Kennedy Krieger Institute and the Maryland State Department of Education.

# Considerations for the Individualized Healthcare Plan (IHP)

- Nursing diagnosis of impaired thought process, risk for disturbed sensory perception, impaired communication, and risk for injury
- Current diagnosed health condition including date of diagnosis, progress of disease process and other chronic health conditions
- Current medication and treatment orders (consider schedule, equipment needs and side effects)
- Student-specific triggers, avoidance, or intervention strategies (e.g., touch, light, sound, smell)
- Activity, positioning, transferring (consider precautions and/or restrictions)
- Consider emergency care plan(s) (ECP) and emergency evacuation plan(s) (EEP) as related to medical needs in the school setting, and staff education/training, as appropriate

### **Discussion Starters for Educational Team**

- 1. Has the school staff been trained to implement the student-specific emergency plan?
- 2. Would the student benefit from evaluations or assessments in any of the following areas: physical therapy, occupational therapy, speech and language therapy, assistive technology, adapted physical education, functional behavior, psychology, hearing and vision?
- 3. Can strategies be implemented to assist the student with executive function (e.g., plan, prompts, organizers, agendas)?
- 4. Does the classroom environment support the student's needs and/or equipment (e.g., desk/seating options, maneuverability space, electrical outlets, flash pass for bathroom or nurse)?
- 5. Can rest breaks, safe spaces or reduced stimulation times be built into the student's schedule?

#### Resources

Kennedy Krieger Institute: Neurology and Neurogenetics Clinics kennedykrieger.org

Epilepsy Foundation: Nonepileptic seizures epilepsy.com/diagnosis/imitators-epilepsy/psychogenic-nonepileptic-seizures

Functional Neurological Disorder Society fndsociety.org/



Scan QR code or visit **KennedyKrieger.org/Redirect** for more information.

