

FUNCTIONAL NEUROLOGICAL SYMPTOM DISORDER

Background

Functional neurological symptom disorder (FNSD) is a neuropsychiatric disorder where an individual experiences altered motor or sensory function unexplained by another neurological or medical diagnosis. Symptoms are caused by a dysfunction of the brain's nervous system rather than a structural disease process (e.g., stroke, multiple sclerosis). Other terms for FNSD include *Pseudo-seizure*, *Conversion disorder*, *Functional movement disorder*, *Functional neurological disorder*, *Psychogenic nonepileptic attacks*, *Psychogenic non-epileptic seizures*, and *functional seizure*.

The exact cause of FNSD is unknown and predisposing factors vary among individuals. While the evidence is not strong enough to indicate direct causality, there is an established connection between FNSD, trauma and psychiatric symptoms that suggest an increased risk of developing FNSD.

There are many types of FNSD causing a diverse set of symptoms. A range and combination of motor, sensory, and cognitive symptoms can result as areas of the brain struggle to communicate. Students may experience substantial or even complete remission followed by sudden relapse of symptoms. Symptoms may include:

- Abnormal control of movements such as tremors, spasms, muscle twitching, posturing
- Extremity weakness or paralysis
- Changes in balance and motor
- Changes in motor function, abnormal gait
- Changes in speech such as slurring, stuttering, difficulty swallowing
- Double vision, vision loss
- Altered sensations such as numbness, tingling, pain, inability to sense touch

Some students may present with abnormal full body movement (generalized limb shaking) with apparent loss of consciousness, resembling a seizure. However, unlike an epileptic seizure, the individual's eyes are most often tightly shut with resistance to opening during the event. The individual may also yell verbal phrases.



Top Takeaways for School Considerations

Functional neurological symptom disorder (FNSD) is characterized by intense physical symptoms that can significantly impact an individual's developmental and functional ability.

FNSD is a complex neuropsychiatric disease. The student is not feigning or faking the symptoms. Validate symptoms and experiences.

Minimize attention and commotion during an episode. Limiting verbal and physical interactions also during this time may be helpful.

Memory, concentration, cognition, and sensory processing may be affected as the brain's ability to properly send and receive signals is affected ("software problem of the brain").

Students should be encouraged to return to the activity in which they were previously involved. Anticipate setbacks but continue to support the student in reaching attainable goals to increase function.

Staff training is important to help differentiate between symptoms of FNSD and seizures. Developing a school management plan should be considered as response is very different between these 2 types of events. If student does also have a known history of epilepsy, refer to Seizure Action Plan.

Pacing with FNSD is very important but not easy to manage. Pacing means finding a balance between activity and rest.

Kennedy Krieger Institute's Specialized Health Needs Interagency Collaboration

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



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Considerations for the Individualized Healthcare Plan (IHP)

- Nursing diagnosis of risk for falls, risk for injury, fatigue, impaired thought process and risk for disturbed sensory perception
- 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)
- Activity (consider precautions but note that the use of adaptive aids/devices is not routinely recommended as they can prevent return of normal physical movement and strength)
- 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 management/treatment 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. Would the student benefit from additional academic support and/or modified education (e.g., copies of notes, extra time, reduced workload, simplified instructions, alternative formats for presentation of material, 504/IEP)?
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?
6. Would schedule flexibility support the student?

Resources

Kennedy Krieger Institute: Neurology Program
kennedykrieger.org

Functional Neurological Disorder Society
fndsociety.org/

Functional Neurological Symptom Disorder Special Interest Group (FNSD SIG)
fnsdsigspp.wordpress.com/

FND Hope Functional Neurological Disorder
fndhope.org/



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KennedyKrieger.org/HealthInformation for more information.