Psychogenic Non-Epileptic Seizures (PNES)

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What are Psychogenic Non-Epileptic Seizures?

• Psychogenic non-epileptic seizures (PNES) are made up of abnormal body movements that look like an epileptic seizure. (An epileptic seizure is when there are abnormal electrical signals in the brain.)

• PNES are not caused by abnormal discharges, but are often due to emotional stressors.
What are Psychogenic Non-Epileptic Seizures?

• In the past they were referred to as pseudoseizures, but Psychogenic Non-Epileptic Seizures (PNES) is now the preferred term.
What causes PNES?

• PNES are a condition of the mind, not the brain.

• Some children have PNES after a traumatic event.

• Some children do not even know that they are under stress.
What causes PNES?

• PNES can be caused by:
  - Mental distress
  - Anxiety
  - Depression
  - Problems at school
  - Social problems
  - Unpleasant thoughts or sensations
  - Problems with learning
  - Family issues
    (such as divorce, sibling rivalry or death of a loved one)
What causes PNES?

• PNES are not caused by:
  - Medical problems
  - Abnormal electrical signals in the brain
How do PNES differ from epileptic seizures?

<table>
<thead>
<tr>
<th>Epileptic seizures</th>
<th>Psychogenic non-epileptic seizures</th>
</tr>
</thead>
<tbody>
<tr>
<td>(seizures caused by epilepsy)</td>
<td></td>
</tr>
<tr>
<td>Caused by a medical problem</td>
<td>Caused by emotional or mental stress</td>
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<tr>
<td>Show up on an EEG (electroencephalogram) as abnormal electrical activity in the brain</td>
<td>Do not show up on an EEG or other medical test</td>
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<tr>
<td>Can be controlled by seizure medicines, other medical treatments and surgery</td>
<td>Can be controlled through counseling and learning how to cope with stress; may be controlled by medicine to help with stress</td>
</tr>
</tbody>
</table>
More information about PNES

• PNES are complex and not easy to understand.

• People who have them are not faking their symptoms.

• PNES often increase when stress builds up.
More information about PNES

- People with PNES often:
  - Do not know why they have them.
  - Cannot find the cause of their emotional or mental stress.
  - Have trouble coping with certain problems in life.
  - Feel guilt and shame because of this condition. They may think others view them as faking or think they can control them.
  - Need family help and support. (This includes counseling.)
  - Need support at school.
Common features of PNES

- Children may feel one or more of these:
  - Anxious
  - Worried
  - Depressed
  - Distant or isolated
  - Not connected with others
  - Cut off from their emotions.
  - Vague headaches, stomach aches and nausea
Common features of PNES

- Children may also have trouble:
  - Talking with others
  - Coping with daily stress
  - Adjusting to new social settings or major life changes
Prevalence of PNES

- Population data is limited, but it is suggested that ...  

  - About 33% of patients in an epilepsy center have PNES

  - 3.5% - 7% of children seen in clinic for assessment of persistent seizures have PNES
Diagnosis of PNES

- Differentiating PNES and epileptic seizures can be challenging. However, the likelihood of PNES is higher when the following are present:
  - Occurring only in the presence of an audience or at unusual times.
  - Occur frequently despite appropriate antiepileptic medication.
  - History of repeated hospitalizations or ED visits.
  - Appears to have a lack of concern about psychosocial stresses.
  - Appears to have excessive emotional response to the PNES episodes.
  - Several routine EEGs with normal results.
Diagnosis of PNES

- Prolonged video-EEG monitoring is the gold standard for definitively diagnosing PNES.
Treatment for PNES

- Treatment for PNES does not begin with psychological intervention, but starts with the diagnosis and delivery of the diagnosis.

- It is important to delivery the diagnosis in an appropriate, understanding, and nonjudgmental manner.

- Clarity of diagnosis is essential for treatment.
Treatment for PNES

• PNES patients do respond to therapy. Research shows that more than half of people stop having PNES shortly after they start treatment.

• A child may need to see a:
  - Psychiatrist, Psychologist, or Counselor

• Treatment may include:
  - Counseling to help your child learn ways to cope.
  - Medicine to help with stress and other symptoms.
    Medications will not help in managing seizures. However, medications may be given to treat underlying conditions or mental health conditions.
Treatment for PNES

• The goals of counseling are to:
  - Find and treat the cause of the child’s stress.
  - Improve how the child talks about his problems and feelings.
  - Find out how to know when stress is building up.
  - Find better ways to cope and solve problems.
  - Find other outlets for stress.
Treatment for PNES

• The most common types of therapy used to treat PNES are:

  - Cognitive Behavioral Therapy (CBT) (a form of psychotherapy that is a short-term, goal-oriented approach to problem-solving)

  - Psychotherapy (talk therapy)

  - Mindfulness-Based Cognitive Therapy (MBCT) (combines CBT techniques with mindfulness strategies)
Treatment for PNES

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Treatment for PNES

- Family involvement is important to manage PNES.

- Regular parent teachings and trainings are advised, so parents can help their child use coping skills in their daily life.
How to recognize PNES at school

• One will not be able to determine the difference between a PNES event and an epileptic seizure without a diagnosis.

• Be supportive of the provider’s diagnosis once determined.

• Be a support for the child.
# How to recognize PNES at school

<table>
<thead>
<tr>
<th>Factor</th>
<th>Psychogenic Nonepileptic Seizures</th>
<th>Epileptic Seizures</th>
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</thead>
<tbody>
<tr>
<td>Duration</td>
<td>Prolonged</td>
<td>Briefer (usually &lt;5 min)</td>
</tr>
<tr>
<td>Clinical features during episode</td>
<td>Fluctuating</td>
<td>Stereotypic</td>
</tr>
<tr>
<td>Time of day</td>
<td>Usually during wakefulness in the presence of an audience</td>
<td>May occur in sleep whether or not anyone is present</td>
</tr>
<tr>
<td>Consciousness</td>
<td>Preserved even with generalized motor activity</td>
<td>Usually altered (exception is supplementary motor area seizures)</td>
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<tr>
<td>Onset</td>
<td>Gradual, with slow escalation in intensity</td>
<td>Abrupt</td>
</tr>
<tr>
<td>Head movements</td>
<td>More frequently side-to-side</td>
<td>Usually unilaterally turned, with staring expression</td>
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<tr>
<td>Extremity</td>
<td>Out-of-phase movements, unusual posturing</td>
<td>In-phase movements, rhythmic muscle contractions</td>
</tr>
<tr>
<td>Vocalizations</td>
<td>Emotional (crying) in the middle or end of episode</td>
<td>Cry at the onset of episode</td>
</tr>
<tr>
<td>Eyes</td>
<td>Closed during the episode</td>
<td>May be open during the episode</td>
</tr>
<tr>
<td>Pelvic thrusting</td>
<td>Forward direction</td>
<td>Retrograde direction</td>
</tr>
<tr>
<td>Incontinence</td>
<td>Rare</td>
<td>May be present</td>
</tr>
<tr>
<td>Related injury</td>
<td>Inconsistent with fall</td>
<td>Consistent with fall</td>
</tr>
<tr>
<td>Tongue bite</td>
<td>Occasional (usually at the tip)</td>
<td>Common (at the side)</td>
</tr>
<tr>
<td>Postictal change</td>
<td>None or brief, even after prolonged generalized convulsive event</td>
<td>Prolonged, with confusion and exhaustion (although maybe absent after frontal lobe seizures)</td>
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</tbody>
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Discussion and Questions