

## NORTHEAST REGIONAL EPILEPSY GROUP

NEW YORK / NEW JERSEY / CONNECTICUT

The Northeast Regional Epilepsy Group provides comprehensive care to patients with epilepsy, using state of the art diagnostic procedures and applying the latest advances in medical and surgical treatment.

### FROM THE DIRECTOR

When treating a patient who comes to the doctor's office either with a diagnosis of epilepsy or with a suspicion of seizures, it is important to consider the possibility that their seizures may, in fact, not be epileptic in nature. The non-epileptic episodes they are presenting with may be either psychogenic or physiological. In the past these paroxysmal behavioral changes have gone by some of the following nomenclatures: pseudoseizures, psychogenic seizures, and nonictal phenomenon. For the purpose of this article, they will be referred to by the name of non-epileptic seizures. The article below written by Neuropsychologist Charles Zaroff describes these seizure types, their diagnosis and the several treatment options available. Though challenging, the prognosis for a full recovery is promising for many of these patients.

**Marcelo Lancman, M.D.**  
Medical Director

## Psychological Non-epileptic Seizures

Dr. Charles Zaroff, Ph.D.

Non-epileptic seizures (NES) refers to temporary behavioral episodes which resemble seizures, although they do not have epilepsy as a cause. NES can have a physiological basis, as, for example, syncope, migraine, and transient ischemic attacks, among others, and can produce temporary changes in behavior that resemble seizures. More often, NES events have a psychological basis. The cause of such psychological non-epileptic seizures (PNES) is unknown, although stress, and a lack of adequate stress coping mechanisms, are thought to play a role. For instance, the rates of PNES are higher in victims of physical or sexual abuse, who commonly experience comorbid posttraumatic stress disorder. However, factors associated with PNES may vary across individuals, with one study showing that children with PNES were found to have undiagnosed learning disabilities associated with poor academic performance, presumably causing emotional distress.

Reliable estimates of PNES are not yet available given that tertiary care centers, in which many of the studies are conducted, tend to see more severe cases. Prevalence has been estimated at 2 to 33 per 100,000 and studies have shown that at any one time 10-40% of patients on a Video EEG monitoring unit may have PNES. While PNES events typically manifest between the third and fourth decade of life, they have been observed in both geriatric and preschool-aged populations. Higher rates are found in females.

Psychiatric comorbidities are common in patients with PNES, and

include mood disorders such as depression and anxiety, personality disorders, and posttraumatic stress disorder. Many patients with PNES also have comorbid neurological dysfunction. Of note, patients may have both epileptic and psychological non-epileptic seizures.

There are some behaviors present during a seizure that may suggest a psychological rather than epileptic cause, such as a situational onset, rhythmic pelvic movements, side-to-side head shaking, and a rapid recovery to baseline after the seizure. In patients who experience an aggravation of seizures resulting from treatment with antiepileptic medication, who produce multiple unexplained symptoms, and who have undergone multiple operations/invasive tests, there is also a greater likelihood of a psychological cause. However, only an EEG obtained during a seizure episode can conclusively diagnosis a psychological non-epileptic seizure. Prolonged Video EEG monitoring is the most useful tool in diagnosis.

PNES events are a concern not just for the epilepsy specialist and neurologist, but for all members of a patient's treatment team and patient caregivers. Despite receiving relatively little attention in even neurology-specific scientific journals, the emotional and financial costs incurred by such patients can be substantial. Studies have shown that patients with PNES incur twice the amount of annual medical costs even after controlling for psychiatric and medical comorbidity. In fact, prognosis may be worse for patients with non-epileptic versus epileptic seizures. Across studies more favorable outcomes are reported in those individuals with a recent onset (<1 year), a specific precipitant as etiology, absent comorbid epilepsy, and motivation toward seizure control.

For some time treatment focused on the comorbid mood or personality disorders, and psychotropic medication and psychotherapy, either in combination or individually, were the most common modes of treatment. However, research on PNES and its treatment, including work by neurologists and neuropsychologists at the Northeast Regional Epilepsy Group, has shown that a specific treatment tailored to the diagnosis of PNES can be quite effective. Currently, the Northeast Regional Epilepsy Group offers services for PNES patients in both the diagnosis and treatment of PNES. Treatment begins with the diagnostic presentation, an aspect of the workup that cannot be underestimated, given that many individuals with PNES events will stop having the events after being provided a proper diagnosis. Patients then meet with neuropsychologists to discuss treatment options, and undergo a psychiatric interview. Patients are then informed of the treatment options available to them.

## NORTHEAST REGIONAL EPILEPSY GROUP

### FACULTY

#### EPILEPTOLOGISTS

Marcelo E. Lancman, M.D.  
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Salah Mesad, M.D.  
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Jeffrey Politsky, M.D., FRCP (C)  
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Gregory Taylor, M.D., Ph.D.

#### NEUROPSYCHOLOGISTS

Lorna Myers, Ph.D.  
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Charles Zaroff, Ph.D.

#### NURSES

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Sabrina Cristofaro, RN (Hackensack Hospital)  
Susan Seeger, NP (Overlook Hospital)

#### EDUCATION DEPARTMENT

Ann Marie Bezuyen, Director  
Tina Conneely, Director of Employment Advocacy  
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### Northeast Epilepsy Group

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Suite E104  
White Plains, NY 10604

## 2007 CALENDAR OF EVENTS

### PATIENT EDUCATION PROGRAMS - NEW YORK

**September 8th, 8:30 am-12pm**, White Plains Hospital Auditorium, Davis Avenue-East Post Rd., White Plains, NY 10601

### HISPANIC PROGRAM

**October 20th, 8:30 am-12pm** • Our Lady of Mercy Medical Center Conference Rooms A & B, 600 East 233rd St., Bronx, NY 10466

### SUPPORT GROUPS FOR ADULT PATIENTS WITH EPILEPSY & THEIR CARETAKERS

**The 2nd Wednesday of every month - 6:30 pm** • Wallkill Medical Arts Building, 390 Crystal Run Road, Suite 101, Middletown, NY 10941

**The 1st Thursday of every month - 6:30 pm** • White Plains Hospital Center Medical Library, Davis Avenue at East Post Road, White Plains, NY 10601

**The 2nd Thursday of every month - 6:30 pm** • Overlook Hospital, The Atlantic Neuroscience Institute Conference Room - 99 Beauvoir Ave., Summit, NJ

### TEEN SUPPORT GROUP

**The 4th Tuesday of every month - 7:00 pm – 8:00 pm** • Wallkill Medical Arts Building, 390 Crystal Run Road, Suite 101, Middletown, NY 10941

### PARENT GROUP

**The 4th Tuesday of every month - 7:00 pm – 8:00 pm** • Wallkill Medical Arts Building, 390 Crystal Run Road, Suite 101, Middletown, NY 10941

**Call Ann Marie at 845.695.6885 for more information or to register for a group or educational program.**