

## **What are non-epileptic seizures?**

Non-epileptic seizures are attacks that can look similar to the seizures that occur with abnormal brain electricity, but actually are not related to epilepsy.

Your doctor has provided this information because your attacks are clearly not caused by abnormal electricity in the brain, and cannot be cured by the medicines that treat epilepsy.

Many different types of symptoms can occur in non-epileptic attacks, including shaking, long periods of inability to respond, violent jerking and thrashing movements, or an inability to move. Patients may hurt themselves, or urinate involuntarily during the episode, and most do not recall the events of the attack once it is over.

Many people with this condition (70-80%) have been treated with medications for epilepsy in the past. Testing is often indicated when these medicines have not helped, or the episodes seem unusual in some way.

## **Does this happen to many people?**

Non-epileptic seizures are not rare. Between 30-40% of patients admitted to our hospital for attacks that do not improve with medicines turn out to have non epileptic seizures, and are taken off medications. Nationally, it is estimated that 2-3 people in 10,000 suffer from these attacks. Nearly one in 5 patients referred to specialty clinics for epilepsy have this problem.

## **What causes my attacks? Why did this happen to me?**

These attacks are not caused by physical changes in the brain that we can measure. Non-epileptic seizures happen much more often in those with excessive stress, or those who have coped with serious emotional trauma, even if the memories are long past.

We do not completely understand how they happen, but many believe that there may be ways for the conscious brain to shut down when overwhelmed. There may be different reasons in different individuals.

We do understand that patients usually have no control over these events, they can come on at stressful times or in perfectly calm and normal situations.

## **How is this diagnosed? What about my other symptoms, could it be something else?**

Although the medical history sometimes provides clues, the only way to be completely clear about a diagnosis of non-epileptic seizures is to record an episode where the patient is not able to respond and/or recall during an event without any change in normal EEG patterns during the episode. This conclusively proves that epileptic seizures, which have quite dramatic waveform pattern changes, are not present. Brain scans, heart rate monitoring and other tests may also be helpful to exclude other forms of illnesses, and are often completed at the same time.

Many patients with non-epileptic attacks also suffer from the other effects chronic stressors can cause - fibromyalgia, chronic pain, depression and irritable bowel syndrome are significantly more common in these individuals.

## **What about driving and working?**

If your non-epileptic seizures cause you to be unable to interact with your environment, it would not be safe to drive or to work at some jobs. The same state statutes (usually not driving for 6 months) apply to most folks who have attacks that would likely impair their ability to drive and be dangerous.

Examples of jobs that might be impossible include working on a roof or using a soldering iron or dangerous automated equipment.

## **What should I tell my family, friends and co-workers?**

Many people have a hard time understanding the changes in body function that can occur as a result of emotional trauma. Most people do know that acute shock can cause fainting, and chronic stress can cause ulcers, chest pain, memory problems, and other physical manifestations. Everyone blushes involuntarily when embarrassed and many have a tremor before an audience presentation.

It is important for everyone to understand and remember that these episodes cannot be controlled by the patient, and that the patient is not putting on these episodes, and is able to function normally in many other ways. One way to express this is to say that the patient suffers from attacks they cannot control, but does not have epilepsy.

If an attack occurs, family and friends should speak to the patient calmly, prevent injuries, and do not need to call an ambulance unless the attack seems to go on quite a long time, or the patient is injured. Do not try to restrain the patient or put anything in the mouth.

## **What kinds of treatment can we try and what works best?**

In some cases, somehow understanding the diagnosis can be a powerful treatment. Some of our patients who have a warning about these events can

leave the hospital and begin to try to get some conscious control over them by focusing on something that keeps them conscious – sometimes a poem, prayer, math problem or even a song will help abort the episode. These are often called countermeasures.

In some cases, it seems difficult to believe the diagnosis. The brain is usually our best ally and it is difficult to understand how it can do things we cannot control. If the diagnosis seems clear, and the attacks continue to occur, it is important to consider all the treatment options. Stopping medications for epilepsy can actually help make the spells stop.

For most patients, though, more intensive work is needed to help heal old emotional scars. The most effective strategies we understand to date are some types of medications (in some cases antidepressants can help) and specific counseling from a therapist who can help with talking through past traumas that may not be immediately obvious to the patient. The brain often struggles to forget severe trauma, as in post-traumatic stress disorder, but sometimes the scars can still have effects on coping abilities in the present. Therapists, neurologists, and psychiatrists do understand these events, and have helped other patients with them.

### **Will I recover?**

If your non-epileptic seizures have been occurring for less than one year at the time of diagnosis, it is very likely (probably nearly 90%) you will be able to make them stop with better understanding, therapy, or different medicines. If they have been occurring for a long time, it seems that they are more difficult to get rid of, but most of our patients have substantially reduced frequency, and almost half stop having episodes completely even when they have been present for a number of years. Commonly, it is patients who cannot believe the diagnosis or follow up with the proper treatment who will continue on anti-

epilepsy medications that are not effective and will continue to have unresolved issues.

Keep yourself safe by avoiding problematic situations but try not to let your family become too protective. Try to lead as full and active a life as you can, and face your trauma and your illness with the courage that will help you conquer them in the long run.

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