

In people over 65, epilepsy is one of most common neurological disorders. Epilepsy is more likely to develop in later life than at any other age.

What is epilepsy?

Epilepsy is diagnosed when someone has a tendency to have recurrent seizures..

What are seizures?

A seizure happens when the normal pattern of electrical activity in the brain is disrupted, causing the brain cells (neurons) to rapidly fire all at once. Seizures can cause symptoms such as changes in sensation, movement, awareness and behaviour, or sometimes convulsions, muscle spasms or loss of consciousness, depending on where the seizure starts and spreads in the brain.

Seizures vary greatly and can last from a few seconds to 2-3 minutes. Most seizures are over in less than two minutes. Not all seizures are epilepsy and under certain circumstances anyone can have a seizure.

Seizures in seniors

Focal seizures are more commonly seen in this age group, and sometimes after a seizure the period of confusion can be much longer, lasting for hours, sometimes days or weeks.

Causes of epilepsy

Epilepsy can have many possible causes, although quite often the cause is not known. Anything that results in damage or scarring to the brain, such as illness, trauma, or lack of oxygen to the brain can lead to seizures. In the over 60s age group the cause of epilepsy is more likely to be identified.

Some known causes of epilepsy in seniors are:

- Stroke. 20 to 50% of epilepsy in the elderly is related to stroke. Seizures occur in more than 15% of people who have had a stroke. Sometimes the first sign of a stroke is a seizure.
- Degenerative brain conditions such as Alzheimer's or dementia can cause the onset of seizures. Alzheimer's has a higher rate of epilepsy than other dementias. Recognition of seizures can be difficult in people with dementia.
- Brain tumours are responsible for 10-30% of seizures in the elderly.
- Head trauma accounts for up to 20% of epilepsy in the elderly.

Cause	Frequency (%)
Stroke	20-50
Dementia	10-20
Brain Tumour	10-30
Head injury	5-20
Other known cause	2-20
Unknown	20-50

Table 1
Causes of epilepsy in the elderly. Acharaya, J.N. & Acharaya, V.J. 2014

Seizures that aren't epilepsy

Provoked seizures are common in the elderly, and often have a reversible cause. These are not considered epilepsy because the seizures have a known cause and are not likely to recur.

Common causes of provoked seizures include metabolic disturbances from illness and/or infections, medications or acute alcohol withdrawal.

Diagnosis

Diagnosing epilepsy in seniors can be more difficult, particularly if the seizures are subtle, such as focal seizures, because they may not be recognised as seizures. Also, there is a greater likelihood of other possible diagnoses and there is often other medical conditions that may complicate the picture.

It is important to have a good eyewitness description of the seizure. The description details should include:

- What happened prior to the seizure? This helps to determine if there was a cause or "trigger"
 - Was the person unwell prior to the seizure?
 - What was the person doing immediately before the seizure?
 - What called your attention to the seizure?
- What did the person do during the seizure – a good description of exactly what they did (or didn't do).
- How long did the seizure last? How long the seizure lasted helps to determine if it was a seizure or other event. Most seizures generally last less than 2 minutes.
- How did the person appear after the seizure?
 - How long did they take to recover fully?
 - How were they feeling after the seizure?
 - Were they confused?
 - Could they respond to you?

Often with seizures, there is confusion, tiredness, and sometimes pain or headache afterwards. Recovery can take several minutes, sometimes in this age group it can be hours.

If the person is confused for a long period, then you should call 000 because sometimes this may be because the seizure is still happening.

If epilepsy is suspected, the doctor will take a medical history and may order tests such as:

- EEG (electroencephalogram) which records the electrical activity of the brain.
- Brain scans such as MRI (Magnetic Resonance Imaging) or CT scans that will show detailed images of the brain.
- Blood tests that may indicate other reasons that contributed to seizures such as a chemical imbalance or deficiency, abnormal blood sugar levels or infection.
- Other tests such as an ECG may be also done to out rule other medical conditions.



Seizure types

Focal seizures are the most common type of seizures seen in seniors. Because they can be subtle or have features that make the person appear confused or disorientate, they may not be recognised as seizures and are often attributed to ageing or dementia.

There are two main categories of seizures: focal and generalised onset seizures.

1. In focal onset seizures, seizure activity remains confined to a small area of the brain. This may only cause minor changes such as altered awareness, confusion and changes in behaviour.
2. Generalised onset seizures occur in both sides of the brain simultaneously so consciousness is usually lost at the onset. The most recognised seizure is a generalised tonic clonic seizure, where the person will have stiffening and then jerking of the body.

Management

In seniors, seizures are more likely to be easily controlled with antiepileptic medications compared to younger people with epilepsy. However, people over the age of 65 may be more sensitive to medication unwanted side effects so starting on a low dose and very slowly increasing it until seizures stop is generally the approach, with the aim of keeping the dose as low as possible to maintain seizure control.

Some unwanted effects include tiredness, unsteadiness, tremor, visual disturbances, changes in mood or behaviour, depression or stomach upsets.

It is dangerous to stop taking antiepileptic medications without speaking to your doctor. Adjusting medication doses without medical advice can cause more severe seizures which could be life-threatening. Always speak to your doctor about any medication issues.

What you may experience

Medical and physical issues

- Antiepileptic medication may react with other medication you are taking. This is called a medication interaction. Check with your doctor and pharmacist about possible medication interactions you may encounter, even with over-the-counter medications, vitamins or supplements.
- As you age, you are more vulnerable to medication side effects, which can include dizziness, poor balance and coordination. Unfortunately ageing also makes us more frail and prone to injury. Seizures may cause falls, fractures or injury. To reduce your risk of injury during seizures, put in place sensible and relevant safety measures. See our [Safety Factsheet](#) for some suggestions.
- After-effects of seizures such as confusion and tiredness can sometimes last several days, even weeks in some cases. This can be problematic, especially if you live alone. Plan ahead for times like these.
- Memory problems affect many people with epilepsy. This may result in forgetting to take medication. Use simple ways to remember such as using a pillbox or an alarm clock or taking medications with meals. If you ask, your pharmacist can put your medications into a pill pack marked with the day and time the medications need to be taken.
- Other health problems or medical conditions may affect how your epilepsy is managed.



Social concerns

- A new diagnosis of epilepsy is potentially life changing and can affect quality of life. It can be difficult to accept and adjust to being diagnosed with epilepsy.
- Epilepsy undoubtedly contributes to social isolation, withdrawal, anxiety and depression. Some people struggle to cope with the fear and anxiety of having a seizure or seizure related injuries. This can be detrimental to physical and emotional well-being and should be managed before it becomes a significant problem.
- Living alone may make the unpredictable nature of epilepsy more problematic. Many older people live alone, and safety can be a concern, especially if seizures are not well controlled.
- Isolation can lead to feelings of depression. It is important to keep in touch with family, friends and community groups. Talk to your doctor if you feel your mood and motivation is affected. Depression can happen at any age.
- Losing your driver's licence can further increase the likelihood of social isolation and create a dependency on others.
- Seizures and medication can contribute to forgetfulness, poor concentration, memory lapses and mental confusion. Regularly reviews medications with your doctor may help to reduce these problems.

The management of epilepsy in older people must also focus on safety and quality of life

Having a seizure management plan in place can be of real benefit.



References:

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