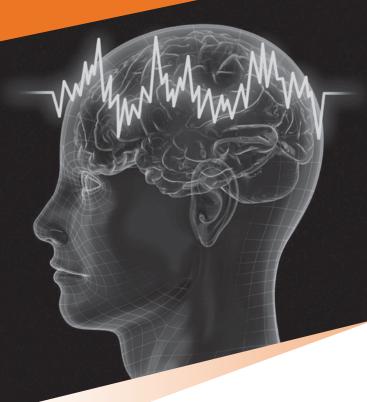
#### **Neurology Department**



# Seizures and Epilepsy



National Neuroscience Institute

SingHealth

# **Understanding Seizures and Epilepsy**

A seizure is an abnormal electrical discharge of a group of brain cells. It can cause different symptoms, depending on the location of the seizure and the spread of the electrical activity through the brain.

A person has epilepsy when he/she has more than one episode of seizures, or has a high risk of having recurrent seizures.

People who suffered a stroke, brain injury, infection or tumour can have epilepsy. In around half the cases, a cause cannot be found.

Triggers of seizures in patients with epilepsy include stress, lack of sleep, menstruation, concurrent infection and skipping medications.

# **Types of Seizures**

There are 2 main types:

#### Focal Seizures

- Usually affects only one part of the body
- · Results in sensory, motor or autonomic disturbances
- The patient may be conscious or unconscious

#### **Generalised Seizures**

- May start as a focal seizure and spread throughout the whole brain
- Loss of consciousness usually lasting 30 seconds to 5 minutes
- Usually rhythmic muscle jerking lasting 1 to 2 minutes
- May cause tongue biting, incontinence and difficulty in breathing

# SEIZURES AND EPI

If a person experiences continuous seizures for more than 3 - 5 minutes; or on and off seizures without regaining consciousness in between, call 995 or go to the Emergency Department immediately. He/she is having a serious seizure and this is a medical emergency.

# **Diagnosing Seizures and Epilepsy**

Epilepsy is diagnosed based on information of events that happened during the attack. Tests may be ordered to confirm the diagnosis, type and cause.

#### • Electroencephalogram (EEG)

This test records the electrical activity of the brain through electrodes attached to the patient's head. The patient may be asked to perform simple tasks during the EEG recording.

 Computerised Tomography (CT) and Magnetic Resonance Imaging (MRI)

Either form of imaging may be required to look for structural causes of seizures.

### **Preventing Seizures and Epilepsy**

**REDUCE** risk of seizures:

- Take prescribed anti-epileptic medications regularly
- · Avoid over-consumption of alcohol/alcohol binges
- · Seek early treatment for illness and fever
- Reduce stress levels
- Get sufficient sleep and rest

Prevent complications of seizures by **AVOIDING** the following:

- Swimming unsupervised or in open waters
- Activities at height

IFPSY

- Bathing in a bathtub
- Activities involving open fire and hot surfaces
- Activities involving heavy machinery and firearms
- Driving. Seek the advice of your doctor

# **Treating Seizures and Epilepsy**

Anti-epileptic medications are the first-line of treatment. Different types of medication may be prescribed. The more common side effects include sleepiness and dizziness.

Patients with focal seizures and are not responding to medications may consider surgery.

#### **Managing Seizures and Epilepsy**

Keep a seizure diary to record the number, type and triggers of seizures. This will help your doctors assess the effectiveness of medications.

When someone is having a seizure:

- Remain calm
- Protect the person from harm
- Turn the person to the side
- · Observe the type and duration of seizure
- DO NOT restrain the person unless there is danger
- DO NOT put anything in the mouth
- DO NOT crowd around the person

#### Support for Seizures and Epilepsy

#### **Singapore Epilepsy Foundation**

The Singapore Epilepsy Foundation provides support for epilepsy patients and their caregivers, and increases public awareness of epilepsy.

For more information, contact 6334 4302 or visit www.epilepsy.com.sg.

#### Epilepsy Care Group (Singapore)

The Epilepsy Care Group (Singapore) provides education and counseling for epilepsy patients and their caregivers, while promoting public awareness.

To find out more, contact 6358 0566 or visit www.epilepsycare.org.

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# Make an Appointment

Download **Health** Hub to make, change, or cancel your appointment online.





Scan the QR code to learn more about other neurological conditions

#### National Neuroscience Institute (NNI) operates out of seven hospitals in Singapore: CGH, KKH, KTPH, SKH, SGH, TTSH, WH



Brochure content serves as a guide only Speak to your doctor for more details

Updated March 2024