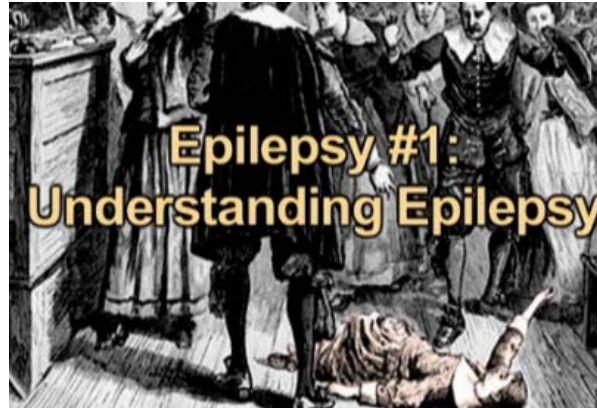


A seizure is a symptom of many different disorders that can affect the brain, not a disease in itself. In centuries past, the word "seizure" referred to people being taken over by supernatural forces.



Today, we understand that a seizure is not a supernatural entity. It is simply a medical condition in which too many brain cells become excited at the same time. The brain is an electrochemical machine. Nerve cells or "neurons" use chemical reactions to generate electricity, like a very complex battery.



When a neuron becomes excited, it passes an electrical signal along its thin biological wire, called an axon, to communicate with other neurons in the brain. Those other neurons either can be excited or inhibited by the signal. If too many neurons become excited all at once then a seizure can result. So a seizure is like an electrical storm. During this abnormal electrical storm, involved parts of the brain cannot perform their normal tasks and people experience sudden alterations of movements, sensations awareness or behavior. A seizure typically goes on for a few seconds to a few minutes. The end of a seizure is a transition back to the individual's normal state. Because the word "ictus" is Latin for "seizure," this period of recovery is referred

to as the "postictal" period, which can last from seconds to hours. A person's level of awareness gradually improves during the postictal period.

Doctors often are asked what the difference is between seizures and epilepsy. To the medical community, epilepsy is the condition of having spontaneously recurrent seizures. That means that one isolated seizure is not defined as epilepsy. There must be two more seizures, or at least one seizure with a high chance of having another. To count as epilepsy, seizures have to appear spontaneously, without an immediate precipitating factor. For example, if Johnny falls off his motorcycle, hits his head and has two seizures on the scene, it is not epilepsy because the seizures were immediately precipitated by head trauma. However, if he recovers and starts having seizures weeks, months or years later as a result of a traumatic brain injury, then that does count as epilepsy.

Epilepsy has a long history of social stigma, but epilepsy is nothing more than a brain disorder caused by uncontrolled excessive and synchronous electrical activity. If you are concerned that you might have epilepsy, see a physician.