

# Carpe Diem – Seize the Day Blog

*Editor's Note: Content presented in the Carpe Diem – Seize the Day Blog is for awareness and informational purposes only, and it is not meant to be a diagnostic tool.*

## **The History of Epilepsy**

People have been aware of epilepsy and seizures for millennia. A Babylonian medical textbook made up of forty tablets and dating to 2000 B.C. contains a chapter that accurately describes many of the different types of seizures known today. However, seizures were thought to be supernatural in cause — each seizure type was associated with a different evil spirit or angry god — so the treatments prescribed were spiritual.

## **Epilepsy in Ancient Greece**

The word "epilepsy" comes from the Greek word “epilepsia,” meaning "to seize" or "to take hold of." By the fifth century B.C., the Greeks still considered epilepsy a "sacred" disease. Yet the renowned ancient physician Hippocrates described epilepsy as a brain disorder. This was a radical idea for the time. He recommended physical treatments while also recognizing that if the seizures became chronic, the disorder was incurable.

Despite Hippocrates' writings, epilepsy continued to be considered a supernatural condition for the next two millennia. People with epilepsy were subjects of immense social stigma, treated as outcasts, and even punished as witches. In many places, people who suffered seizures were prevented from going to school, working, marrying, and having children. There were a few people with prominent positions thought to have had epilepsy — including Julius Caesar, Tsar Peter the Great of Russia, Pope Pius IX, and Fyodor Dostoevsky — but most people with epilepsy were prevented from living as full members of society.

## **Epilepsy in the 14th Century and Beyond**

During the Renaissance, some scientists tried to prove epilepsy was a physical, not spiritual, illness. Then, in the 19th century, neurology became a recognized medical discipline and the idea of epilepsy as a brain disorder became normal in North America and Europe. In 1857, Sir Charles Lacoek introduced bromide of potassium as the first antiepileptic drug (AED).

In 1873, a British neurologist named John Hughlings Jackson first described epilepsy as we understand it today. Jackson showed that seizures are caused by sudden, brief electrochemical discharges of energy in the brain. In 1909, the International League Against Epilepsy was founded as a global professional organization of epileptologists.

By the 1920s, Hans Berger, a German psychiatrist, had developed the electroencephalogram (EEG) to measure brain waves. It showed that each type of seizure is associated with a different brain wave pattern. The EEG also aided in the discovery that specific sites in the brain were responsible for seizures and expanded the potential for surgical treatments. Surgery became a more widely available option by the 1950s.

## **The Development of Anti-Seizure Medications**

The medication phenobarbital was identified as an ASM in 1912, and phenytoin (sold under the brand names Dilantin and Phenytek) was developed in 1938. Carbamazepine (sold under the brand names Tegretol and Carbatrol) was identified in 1953. These drugs have since been approved by the U.S. Food and Administration (FDA) and continue to be used today.

An accelerated drug-discovery process began in the 1970s with the creation of the Anticonvulsant Screening Program, sponsored by the National Institute of Neurological Disorders and Stroke. The program helped scientists gain a better understanding of the brain and epilepsy. Scientists have strived to reduce serious side effects associated with the use of older AEDs through drug-development processes.

Keppra (levetiracetam) was approved by the FDA in 1999. Several newer drugs, including Vimpat (lacosamide), Briviact (brivaracetam), and Aptiom (eslicarbazepine acetate), have been introduced in the past 10 to 15 years. Other promising medications are also in the pipeline.

## **Social Stigma**

The stigma around epilepsy has lessened as more people are able to effectively treat their seizures. However, epilepsy largely remains an “invisible” illness. Millions of people in developing countries do not have access to AEDs, and stigma and discrimination are still widespread, especially in places where people still believe that seizures have a supernatural cause.

***Editor’s Note: The Carpe Diem – Seize the Day Blog will be distributed and posted weekly.***  
Always remember – **CARPE DIEM – SEIZE THE DAY!**

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