The Use of Brain Cooling To Prevent Trauma-Related Seizures, by Dr. Michael Ajemian

For patients who have suffered a head injury, one of the most serious side effects is the development of epileptic seizures. Dangerous because of its resistance to treatment, this type of acquired epilepsy has puzzled physicians for years. Recently, however, researchers at the University of Washington have discovered that mild cooling of the brain following trauma can reduce the risk of seizure development.

Working with brain-contused rats, the research team applied cooling devices that reduced the rats' brain temperature by less than two degrees [Celsius](http://en.wikipedia.org/wiki/Celsius), a degree of cooling known to be safe. After five weeks, the cooling treatment had all but eliminated the development of seizures. This discovery has greatly excited the trauma community worldwide, and hospitals such as Imperial College Healthcare in London have begun applying this technique to human patients.

About the Author: Dr. Michael Ajemian currently serves as Director of Trauma, Critical Care, and Emergency Surgery at St. Mary's Hospital in Waterbury, Connecticut. He also serves on the State of Connecticut Trauma Committee and has served as Director of Trauma at nearby Waterbury Hospital. He holds several specialized trauma certifications including Advanced Trauma Life Support and Advanced Cardiac Life Support.