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## **Research Finds Possible Cause of Sudden Unexplained Death in Epilepsy (SUDEP)**

**BOSTON, Mass., December 6, 2009** – Sudden Unexplained Death in Epilepsy Patients (SUDEP) is rare among the nearly 3 million people in the U.S. who have epilepsy. But with an occurrence rate of one in every 150 persons with uncontrolled seizures, the number of incidents each year is significant. The mechanisms of SUDEP and the methods of preventing it are still largely unknown despite intense clinical and research interest.

A new study reported today at the 63<sup>rd</sup> meeting of the American Epilepsy Society, shows linkage between multiple seizures and heart function that can lead to SUDEP. In animal models stimulated to represent refractory epilepsy in humans, investigators at the University of Utah found that repeated seizures produce alterations in cardiac electrical activity predictive of sudden cardiac death. The study animals having multiple seizures also had increased susceptibility to experimentally-induced ventricular arrhythmias, compared to animals exposed to initial kindling only.

“Our findings support the hypothesis that multiple seizures produce progressive, chronic effects that could culminate in sudden death,” said Dr. Steven Bealer, professor of pharmacology and toxicology at the University of Utah, who conducted the research.

In 2008, the American Epilepsy Society and the Epilepsy Foundation released a report and recommendations for better scientific understanding and prevention of the SUDEP phenomenon. Among key findings in that report is the low autopsy rate in SUDEP suspects and the lack of sufficient information on autopsy reports. To address this problem, the authors of the report recommend the development of uniform criteria for SUDEP determination, including protocols for complete autopsy examination, and an awareness campaign aimed at affected families, coroners and medical examiners on the need for complete autopsy examinations in suspected cases.