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**Title:** Protection against high-pressure oxygen seizures by amino-oxyacetic acid

**Authors:** Beckman, DL  
Iams, SG

**Keywords:** drug  
hyperbaric  
animal  
mice  
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oxygen toxicity  
amino-oxyacetic acid  
seizure

**Issue Date:** 1978

**Abstract:** A variety of autonomic blocking agents, general anesthetics, and anticonvulsants have been shown to offer protection from seizures caused by hyperbaric oxygen. Amino-oxyacetic acid (AOAA) has been shown to offer rats only minimal protection from such seizures. This study investigated whether AOAA protected cats and mice from hyperbaric-oxygen-induced seizures. Cats and mice were exposed to 100percent oxygen at 5 ATA until seizures occurred or for a period of up to 60 min. Approximately half of the animals were pretreated with AOAA either 30 or 240 min before oxygen exposure. Results showed that the interval between exposure and grand mal seizures increased significantly in cats pretreated 30 or 240 min before exposure with 17 to 25 mg/kg AOAA; the number of cats remaining seizure-free for 60 min also increased markedly. However, mice received little protection even at doses up to 40 mg/kg. At higher doses the AOAA itself caused seizures even in the absence of hyperbaric oxygen. Acetic Acids/\*therapeutic use Aminooxyacetic Acid/\*therapeutic use Animals Cats Convulsions/etiology/\*prevention & control Dose-Response Relationship, Drug Female Hyperbaric Oxygenation/\*adverse effects Lung/pathology Male Mice Time Factors

**Description:** Undersea and Hyperbaric Medical Society, Inc. (<http://www.uhms.org> )

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