

Dogs Respond to Non-Epileptic Seizures

A new study says service dogs may be responding to psychological attacks.

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Some dogs trained to detect epileptic seizures are actually predicting psychological seizures, rather than true epileptic attacks, new research suggests.

The studies don't indicate that seizure dogs aren't performing as trained, but that a percentage are warning their owners of psychologically based seizures, rather than epileptic seizures, explained Orrin Devinsky, director of the Comprehensive Epilepsy Center at New York University.

Specially trained seizure dogs supposedly can pick up on subtle physiological changes in their human companions that can begin up to 45 minutes before an epileptic seizure. The dogs then warn the humans so they can find a safe environment or take precautionary measures.

It's important to define what kind of seizures these patients have because certain drugs are used to treat epilepsy, while other therapies are for non-epileptic seizures, explained Gregory L. Krauss, an associate professor of neurology at Johns Hopkins University School of Medicine in Baltimore.

Krauss was lead author of one of two papers documenting the phenomenon in the Jan. 23, 2007, issue of *Neurology*. The two studies looked at a total of seven people who had seizure-response dogs. Most were monitored to detect abnormal electrical activity in the brain of the kind that causes epileptic seizures.

Four of the participants had no abnormal electrical activity during their seizures, and were diagnosed instead with psychogenic non-epileptic seizures – physical manifestations of an emotional problem. Another person was diagnosed with psychological seizures. Two of the people did have epilepsy.

According to Krause, about 10 percent of the patients seen at epilepsy centers don't really have epilepsy, but rather psychogenic seizures, a form of abnormal coping. A lot of them are stress reactions, Krauss said.

"We're just cautioning people who provide these dogs and the public seeking out these dogs to make sure they have a firm diagnosis of epilepsy before matching them with this specially trained dog," he added.

A second study in the same issue of the journal found that some patients with epilepsy can predict, on their own, when they are about to have an attack.