

Diabetes Sniffing Dogs Alert Diabetes Patients to Low Blood Sugar

Diabetes alert dogs, also known as hypoglycemia alert dogs, are trained to detect slight changes in breath and body odors associated with high or low blood sugar, and to alert someone when they detect them. Depending on the odor, a dog's sense of smell is said to be 1000 to 100,000 times greater than a human's. According to researchers and trainers, a sweet, fruity smell is associated with high blood sugar, while an acidic, almost rusty smell is a sign of low blood sugar. "We found that dogs are incredibly accurate," says Claire Guest from Britain's Cancer and Bio-detection Dogs, "They can warn someone immediately when their blood sugar is dropping to a dangerously low level."

It was anecdotal reports from dog owners that first led to research on man's best friend's ability to warn their diabetic owners of an impending dangerous drop in blood sugar. Sixty-five percent of 212 dog owners with type 1 diabetes who took part in one study in Belfast, Ireland reported that their pets would attempt to get their attention just before a hypoglycemic episode. Some would bark or whine, others would lick and nuzzle them repeatedly, some would jump up on them, and others would stare fixedly and intently at their faces. Almost a third of the animals in the study had reacted to at least 11 events before entering the research project, while another third had reacted more than 11 times.

There are potentially severe consequences for diabetics whose blood sugar falls sharply, especially during the night. They can suffer a seizure, slip into a coma or even die without waking up. This is particularly worrisome for parents of diabetic children, many of whom are chronically sleep-deprived from getting up to check on their kids throughout the night. Diabetic alert dogs are trained to sleep with the diabetes patients, periodically sniffing their breath. If they notice a fruity odor, they will attempt to wake the patient and/or alert other family members. Some dogs are even trained to bring the diabetic his or her glucose monitoring kit.

Still, trainers warn that the dogs are not always 100 percent effective, and may miss a scent on occasion, or give a false alarm. They are best considered as another tool in the diabetes patient's tool kit. Type 1 diabetes, previously called juvenile diabetes or insulin dependent diabetes, is a form of the disease where the body makes little or no

insulin. Without insulin, the body is unable to break down glucose for energy, causing blood sugar (glucose) levels to rise.

Lifelong diabetes medication is necessary for type 1 diabetics, and proper nutrition and exercise are important to maintain good health. Insulin injection has been made easier in recent years with the introduction of the more discreet and convenient insulin pen. Insulin pens are the predominant insulin injection system in most of the world, but for some reason the insulin pen is used less commonly in the United States, although their use is increasing.