

Hypoglycemia Requires Quick Intervention in Toy Breeds

Toy-breed dogs are not only at risk for hypoglycemia, but they could also die from the low blood sugar disorder if they do not receive prompt treatment.

When a dog's blood sugar, or glucose, level drops, it can affect neurological function. Disorientation, tremors, and coma may occur. Usually, hormones stimulate the breakdown of stored glycogen to supply the brain and other tissues with fuel. In toy breeds, this process may not happen quickly enough, resulting in hypoglycemia.

Juvenile hypoglycemia occurs in puppies less than 3 months of age. Because puppies have not fully developed the ability to regulate blood glucose concentration and have a high requirement for glucose, they are vulnerable. Stress, cold, malnutrition, and intestinal parasites also may trigger juvenile hypoglycemia.

Signs of hypoglycemia are loss of appetite, extreme lethargy, lack of coordination, trembling, muscle twitching, weakness, seizures, and discoloration of skin and gums. Most dogs will not eat or drink when they are in low-sugar shock.

Simple cases of hypoglycemia can occur when a dog is overly active with too much time between meals or fasts before vigorous exercise. Hypoglycemia may also occur secondary to another condition. Other causes include Addison's disease, insulin-producing tumors of the pancreas, severe liver disease, and glycogen storage diseases. If an underlying illness causes hypoglycemia, veterinarians first treat this condition.

Veterinarians are likely to conduct a complete medical history and physical examination to determine the cause in dogs that develop chronic hypoglycemia. Other tests include a complete blood count, blood glucose concentration, urinalysis, routine biochemistry, and blood insulin concentration.

An ultrasound may be taken of the abdomen to try to identify a pancreatic or other type of tumor that could cause hypoglycemia.

Puppies and adult dogs that appear to be in a stupor or coma during a hypoglycemic attack should immediately be given sugar water or an oral concentrated solution of glucose, such as corn syrup or Nutri-Cal. Owners of toy breeds should have a glucose source readily available. In an emergency, dab sugar water on or under the tongue. The sugar is absorbed directly through the tissue into the bloodstream.

Breeders and owners should proactively look for signs of hypoglycemia in their puppies and should frequently feed toy-breed puppies as a preventive measure. Breeders are also encouraged to include information about hypoglycemia in the packets they send with puppies going to new homes. Sharing information may help save a dog's life.

Signs of Hypoglycemia

- Loss of appetite
- Extreme lethargy
- Lack of coordination
- Trembling
- Muscular twitching
- Weakness
- Seizures
- Unusual behavior
- Dilated pupils
- Stupor or coma