



HYPOGLYCEMIA (Low Blood Sugar)

What is Hypoglycemia and how does it happen!

It is an abnormally low blood glucose (sugar) concentration. Mechanisms responsible for hypoglycemia include: Excess insulin (e.g., insulin producing tumor or insulin overdose); Reduction of hormones needed for maintenance of normal serum glucose (e.g., adrenal gland malfunction); Reduced production of sugar by the liver; Excessive utilization (e.g., hunting dogs, pregnancy, etc.); Reduced intake or underproduction (e.g., puppies and kittens, toy breeds, and severe malnutrition or starvation)

What are the signs of hypoglycemia!

The symptoms are variable depending on the underlying cause. Signs of hypoglycemia can include: seizures, posterior paresis or partial paralysis, weakness, collapse, muscle fasciculations or quivering, abnormal behavior, lethargy and depression, ataxia or loss of balance, increased appetite, weight gain, increased water consumption and urine production, and exercise intolerance. Some animals appear normal aside from the findings associated with the underlying disease.

Reduced intake or underproduction in young puppies and kittens and toy breed dogs may be associated with vomiting, diarrhea, loss of appetite or severe malnutrition or starvation. Parasites can be one of the underlying causes in puppies and kittens. Very young puppies and kittens have a poor glycogen (a glucose precursor) storage capacity and a reduced ability to make glucose. As a result, short periods of fasting (6-12 hours) can cause hypoglycemia.

How is it diagnosed?

The history and physical examination may make the diagnosis suspect, but a blood test is needed to determine the actual blood glucose level. The underlying cause may require substantial diagnostics in some cases, including more blood tests, x-rays, ultrasound examination, and even tissue biopsies.

How is hypoglycemia treated?

Animals with clinical hypoglycemia and those with underlying disease requiring intensive support, should be treated in the hospital. If able to eat (i.e., responsive and not vomiting), feeding is a part of initial treatment for hypoglycemia.

Emergency or acute treatment may include: intravenous fluids including the sugar dextrose and frequent feeding of a diet low in simple sugars or, if unable to eat, continuous fluid therapy with dextrose. Medications and treatments for underlying disease conditions are often indicated.

Long-Term Treatment:

- Depends on the underlying cause. For instance, insulin producing tumors usually require surgical removal.
- Hunting dog hypoglycemia: feed moderate meal of fat, protein, and complex carbohydrates a few hours before hunting. Snacks (e.g., dog biscuits) can be fed during the hunt every 3-5 hours.
- Toy breed hypoglycemia: increase the frequency of feeding and use a balance diet with a high level of usable protein, such as a puppy formula.
- Puppy and kitten hypoglycemia: increase the frequency of feeding (i.e., nursing or hand feeding with frequent small meals) and feed them a puppy or kitten formula or a high stress diet such as Prescription Diet a/d or p/d.

Special instructions: _____

Thank you for this opportunity to serve you!