

Pregnancy Toxemia

Famo Flier

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Also Known As:

- Ketosis
- Lambing/kidding sickness
- Twin lamb/kid disease

Who:

- Pregnant ewes and does
- Typically seen in ewes and does carrying multiples
- Often affects those that are markedly over or underconditioned

When: Typically reported in the last month to two months of gestation and is often fatal.

Types:

- Chronic – dams are chronically underfed or undernourished during pregnancy. This may be attributed to highly restricted feeding, competition at the feed bunk, or poor nutritional management. Of the two types, chronic is most common.
- Acute – a short duration during which dams stop eating. This fasting in normally well-fed animals is typically associated with some stressor (environmental or psychological). Examples of environmental stress would be heavy snow or rainfall. Psychological stressors would be transport (by foot or truck), disease outbreak, changes to the routine, etc.

Why: Nutritional demands during the last two months of gestation for sheep and goats are incredibly high. Around 80% of fetal growth occurs in those last 6 weeks before parturition. Thus, dams require a significant amount of energy and protein to sustain themselves and their pregnancies. This need increases dramatically when dams are carrying multiples. With this in mind, nutrition during the last two months is critical to the health and well-being of the ewes and/or does. Their nutritional needs are at their highest; their intake capacities are at their lowest, which leaves them very susceptible to metabolic disorders. Diets fed to periparturient ewes and does must be nutrient dense (especially energy), and accessible in adequate quantities to ensure appropriate intakes for all dams.

Visible Symptoms:

- Staggered, unsteady gait
- Unable to rise
- Separated from flock
- Off feed
- Little fear of humans or dogs (impaired vision)
- Convulsions
- Teeth grinding
- Labored breathing
- Mucous discharge from nose
- Death

Diagnostics: Pregnancy toxemia is rooted in a disruption of carbohydrate metabolism. Some blood markers may be affected as follows –

- Blood Glucose – Concentrations will be below 30, possibly as low as 10 mg/100 ml. Normal range is 40-60 mg/ 100 ml.
- Blood Ketone Bodies – Concentrations will be greater than 15, possibly as high as 80 mg/100 ml. Normal range is 1-4 mg/100 ml.
- Free fatty acid levels will also be elevated as body fat is being mobilized and broken down for energy.

Prevention:

- Maintain ewes and does at a body condition score of 3.5 (on a 5-point scale).
- Heavy animals appear to be more susceptible to both acute and chronic pregnancy toxemia.
- Only allow weight gain during the last 6 weeks before lambing/kidding.
- Avoid stressors during late gestation. These include physical and psychological stressors.
- Avoid transporting animals during the last 6 weeks before parturition.
- For ewes/does carrying a single fetus: Provide a minimum of 1 lb of grain or grain mix per animal during that last 6 weeks leading up to lambing/kidding to provide sufficient energy.
- For ewes/does carrying multiples: Provide a minimum of 1.5 lb of grain or grain mix per animal during that last 6 weeks leading up to lambing/kidding to provide sufficient energy (target approximately 1 lb of grain for each fetus being carried).
- Ensure that all animals have access to feed and that all ewes/does are eating.

Treatment: If you suspect pregnancy toxemia, contact your veterinarian immediately for assistance. Refer to your veterinarian for a specific treatment plan. The following are some short-term options –

- Dose propylene glycol or corn syrup orally for a quick source of energy (200 ml, 4 times daily).
- 3 – 4 liters of an electrolyte solution designed for livestock (this will support hydration).