

Acidosis



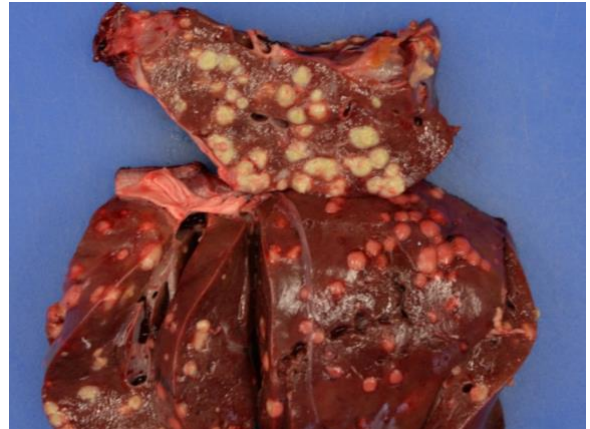
- Acidosis is a severe and often fatal disease in deer, elk, and other wild hoofed stock species that consume an excess of high-carbohydrate feed.

Species Affected in Colorado

- Deer
- Elk
- Bighorn sheep
- Moose
- Pronghorn

What to Look For

- Diarrhea
- Animals acting sick or weak
- Long or twisted hooves
- Liver abscesses



Liver abscesses can occur when acid burns the stomach and bacteria enter the blood.

Cause and Transmission

Native wild hoofed stock like deer and elk eat wild grasses, forbs, and shrubs. They have a specialized stomach (rumen) for digesting this type of food. When a “ruminant” eats corn, birdseed, apples, grain, or other high carbohydrate foods, the stomach balance is upset and too much acid is produced. The acid causes burns to the stomach lining, letting bacteria into the blood and causing diarrhea, water loss (dehydration), brain damage, and hoof problems (laminitis). Many animals die quickly from the acid’s immediate effects, while others may live longer but die from liver or brain damage. The best way to prevent acidosis in wildlife is to prevent access to high carbohydrate foods. Many people want to help wildlife by providing food, but unfortunately this practice causes many wildlife deaths each year in Colorado. Wild ruminants are highly adapted to eat naturally available foods, and even a small amount of supplemental feeding can be harmful. In addition to problems like acidosis, supplemental feeding unnaturally congregates animals and can help spread other diseases.

Management & Public Health Concerns

The potential for harm to native wild ruminants is part of the reason it is illegal to feed “big game” wildlife species in Colorado. Acidosis also can affect any ruminant species including cattle, sheep, and goats. It may be confusing that domestic animals can eat corn and other high carbohydrate foods without getting sick while wild ruminants cannot. This is because in livestock the diet has been introduced gradually, their stomach has adapted, and the food intake is strictly monitored and balanced. Acidosis is not a transmissible disease. However, if abscesses are seen in the liver it can be a sign that bacteria have entered the blood and the meat should not be consumed.

Additional Information/References

Wobeser, G. and Runge W. 1975. Rumen overload and rumenitis in white-tailed deer. *Journal of Wildlife Diseases* 39(3): 596-600.

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