

Dr. Dennis G. Bardelmeier, DVM  
Ph.715-316-2369

**P.O. Box 366**  
**413 South 4<sup>th</sup> Street**  
**Abbotsford, WI 54405**



**Ph. 715-223-4700**  
**Fax. 715-223-4711**  
**info@northernlakesvet.com**

## **KETOSIS TREATMENT PROTOCOLS**

Ketosis is disorder of dairy cows, usually within the first 6 weeks after freshening. Signs include decreased production, poor appetite, often dry manure, and sometimes a sweet odor from the breath or milk. Nervous ketosis has the above plus neurologic signs such as incoordination, aggression or depression, blindness, and chewing on pipes. Ketosis is an imbalance of energy: more is being used than is consumed. Primary ketosis occurs, usually 3 to 6 weeks post-calving, in a cow that has been milking extremely well, cannot eat enough to match her production, and loses quite a bit of weight. Secondary ketosis is much more common and occurs because of another problem (like retained placenta, metritis, mastitis, displaced abomasum, etc.) decreasing appetite. A number of early lactation cases can be related to dry cow and transition cow management and nutrition. Fat cows are at increased risk.

The diagnosis of ketosis can be confirmed with milk or urine tests for ketones. Any other conditions need to be identified promptly and corrected if possible.

Treatment involves rectifying the energy deficiency. Propylene glycol can be administered as a drench: give 8 ounces twice daily. Niacin can be given at a dose of 6 to 12 grams daily. Various products like Ketogel incorporate both in an easy to administer product. Oral therapy is especially worthwhile for mild cases and as a follow-up to intravenous treatment.

Cows that are significantly down on feed and milk production and ALL nervous ketosis cases need to be treated intravenously. A 500cc bottle of 50% Dextrose should be given intravenously. Do not give this subcutaneously (under the skin) because of local inflammation being likely.

Steroids are helpful. Predef 2X at a dose 10cc intramuscularly and repeated, if necessary, in 48 hours is beneficial (**WITHHOLDING**). Steroids should be avoided if the cow is fighting an infection like metritis.

D-panthenol helps maintain stomach and intestinal motility. 10 to 20 cc can be given intravenously or intramuscularly twice daily.

Vitamin B-complex and vitamin B-12 also help promote appetite. Since different formulations have different concentrations, please refer to the label instructions for dosages.

Ketosis typically is not cured with one treatment so following-up with the oral therapies mentioned is recommended. High herd ketosis levels require ration balancing for the dry and transitional cows as well as the lactating group. Specific additives like Rumensin can be valuable. Input from your nutritionist is very important.

Other drugs and treatment protocols can be discussed. Please call with any questions.