



Early on in the course of the disease, the goat may show a stiff legged gait.

Polioencephalomalacia

This is a neurological disease caused by real or relative thiamine deficiency. Thiamine (vitamin B1) is made by the normal bacteria in the rumen. Kids or does on high carbohydrate diets may have an upset in normal rumen flora. A change in bacterial types may cause either a deficiency of thiamine or production of an enzyme which inhibits thiamine activity. The end result is the disease polioencephalomalacia (softening and necrosis of the grey matter of the brain). Overdosing with amprolium (in the treatment of coccidiosis), exposure to high levels of sulphur in the diet, or grazing on mare's tail (equisetum) can also result in "polio" but are unusual in comparison to high carbohydrate diets.

Early on in the course of the disease, the goat may show a stiff legged gait. The head may be held high and the animal is anxious. As the disease progresses (often within 6 hours), the goat is blind and the head may be pulled straight back towards its shoulders. The front legs are stiff and the animal may fall down. Once down, the abnormal head and neck stance is more evident (opisthotonus). The pupils will

constrict to light but the goat will not react to a hand menace. Other rule outs are tetanus (the animal is not blind), pulpy kidney, lead poisoning, listeriosis, and other toxins e.g. organophosphates and organochlorines.

Sometimes the only way to make a diagnosis is through a response to treatment. Early polio cases often respond, at least partially if not completely to thiamine administration (by a veterinarian). Often some response occurs within a few hours of initial treatment. Most other neurological diseases respond slowly or not at all to indicated treatments (unless specific poisonings). Because thiamine deficiency does cause brain necrosis however, time is important. The longer treatment is delayed, the more likely irreversible brain damage may occur. One case may not necessarily mean a herd problem but the feeding management should be reviewed. Some problem herds do require routine thiamine supplementation but first feeding management should be investigated.

*Dr. Paula Menzies, Department of Population Medicine
Ontario Veterinary College, University of Guelph
Reprinted with Permission.*



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada

Canada

Agriculture and Agri-Food Canada (AAFC) is pleased to participate in the production of this publication. AAFC is committed to working with our industry partners to increase public awareness of the importance of the agriculture and agri-food industry to Canada. Opinions expressed in this document are those of the Canadian Meat Goat Association and not necessarily AAFC's. / C'est avec plaisir qu'Agriculture et Agroalimentaire Canada (AAC) participe à la production de cette publication. Avec nos partenaires du secteur nous nous engageons à sensibiliser davantage les Canadiens et Canadiennes à l'importance de l'agriculture et l'industrie agroalimentaire au pays. Les opinions exprimées dans cette publication sont celles de l'association canadienne de la chèvre de boucherie et non pas nécessairement celles d'AAFC.