Botulism (also called *lamsiekte*) is a disease of cattle, goats and sheep. It paralyses the muscles of animals so that it is difficult for them to get up or walk.

**Cause**

- It is caused by a very powerful toxin (poison) produced by a bacterium (very small organism) called *Clostridium botulinum*.
- The bacteria produce the poison in rotting carcasses, as well as in mouldy silage and hay. The poison is formed in the carcasses of almost
all kinds of animals, such as cattle, horses, sheep, chickens, hares, rats and tortoises. The poison spreads in the flesh and bones of the carcasses and can remain in the bones for years.

How do animals become infected?
The bacterium Clostridium botulinum lives in the upper layers of the soil. From the soil it spreads to dead animals, standing pools of water containing rotting plants or animals, and hay or silage. Here it forms its poison. The bacterium needs moisture, warmth and a lack of air to make the poison.

- **Infected silage** or **hay** can poison animals.
- **Dead chickens** must be removed from chicken houses because they can get trampled and buried in the straw used as bedding. The poison can be produced in them. If cattle eat the straw, they can be poisoned.
- In winter animals do not always get enough green grazing. If they lack phosphorus, they start chewing anything from wire to stones, but especially bones. If they eat **bones** or **carcasses** containing the poison, they may get botulism.

Symptoms (signs)
After taking in the toxin, it takes 2 to 14 days before the disease can be seen.

**Very severe (peracute) botulism**
- Very severe illness is caused if large quantities of the poison are taken in. Very severe cases do not occur often.
- The period from the time that the first signs can be seen until the animal dies, is less than 24 hours.
- The animal's muscles become weak.
- It lies down, its limbs cannot move, its tongue sticks out, lots of saliva flows from its mouth before it dies.

**Severe (acute) botulism**
- When the illness is severe it takes 2 days to 1 week for the animal to die.
• The signs are the same as when the disease is very severe, but they take longer to develop.
• Most animals lie down very soon, but in the early cases can still walk stiffly and slowly.
• At first the animal can stand up without being helped and it can move very slowly and stiffly, but later it cannot stand up by itself.
• It may still eat, but it becomes thin, its eyes become sunken and its coat gets rough.
• At first the head is held upright, but later it stays on the ground.

Slow (chronic) botulism
• The animal lives longer than 8 days.
• It seldom lies down, however, its legs become weak, it chews and swallows with difficulty and looks unwell.
• Some animals do not die, but they become very thin.

Medicine
• There is a serum available, but it only works in very early stages and it must be injected by a veterinarian.
• Do not slaughter animals for human consumption within 7 days of vaccination.

Prevention
It is best to make sure that animals do not get the disease.
Do the following:
1. Burn or bury all carcases, bones or rotting material.
2. In dry months give the animals a supplement containing phosphate and calcium. Buy this at a store or cooperative. This will stop them eating old bones and contaminated matter.
3. Vaccinate your animals
   – Ask the nearest state vet about vaccination. All cattle should be
vaccinated, calves at about 6 months of age and again 4 to 7 weeks later. After this all cattle must again be vaccinated every year.

- After vaccination an animal may still get botulism if you have not done what is set out in 1 and 2 above.

For further information contact your local veterinarian

or

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