

Vaccination against clostridial diseases is best done prior to turnout. Often youngstock do not get protected in the rush to get them outside. Diseases caused by bacteria of the Clostridial group are common in all species; they form spores (resistant stages) that lie dormant in soil, water, feed and even in animals that survive until conditions are favourable for their multiplication when they cause disease. Over the last few years there seems to have been an increase in the number of cases where Clostridial disease has been diagnosed or suspected, usually associated with sporadic sudden death in calves or youngstock.

The main diseases seen in cattle in the British Isles are:

1. Clostridial Myositis. This divides into two categories Blackleg (Black quarter) and Malignant Oedema (Gas gangrene). Blackleg is sporadic but not uncommon, usually seen in animals six months to two years old when turned out onto lush pasture in the spring. Often they are just found dead, but if seen alive they are lame with a high temperature and gas bubbles can often be felt under the skin. Treatment is not usually a viable option as rarely successful. Malignant Oedema starts locally but has broadly similar symptoms it is associated with a wound of some type often in the birth canal after calving, but also after such things as castration and injury. Treatment with antibiotics can be successful if caught early enough.
2. Tetanus. Cattle are thought to be relatively resistant to this condition but it is more common than people think. Usually occurs through a deep wound, but can occur via the gut due to damage by fibrous feeds leading to apparent outbreaks. Symptoms are initially of stiffness, which lead to spasms, recumbency and muscle rigidity (usually in the jaw and/or limbs) and death. Treatment in the early stages can be successful but recovery is usually slow.
3. Infectious Necrotic Hepatitis (Black Disease). This condition is uncommon. It affects the liver when conditions are right for bacterial multiplication. Liver fluke damage appears to “trigger” the disease.

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Damage to liver tissue near clostridial spores reduces local oxygenation and triggers their growth and production of toxins. Initially there is a high temperature followed by abdominal pain and gut stasis. Death is rapid usually in less than two days.

4. Bacillary Haemoglobinuria. Appears to be rare in Britain. After activation of the spore there is fever, abdominal pain and dark red urine. The toxin destroys the red blood cells but death may occur before the red urine appears. Treatment may be possible with antibiotics in the early stages.

These conditions are severe and life threatening because of the toxins produced by the bacteria. Treatment is of limited value being often ineffective and costly. Prevention is simple and relatively inexpensive. Vaccination is very effective and if the cows are vaccinated, good protection is transferred to the calf via the colostrum lasting probably 3 to 4 months. Thus cattle over 4 months should be vaccinated as according to manufacturers data sheets prior to turn out.

