

# Downer Cow Syndrome

Rick Stockler DVM, MS, PhD, DABVP  
Alabama Veterinary Diagnostic Laboratory System  
Alabama Department of Agriculture and Industries

**D**owner cow syndrome indicates that cattle become recumbent and fail to rise for over 24 hours. Usually, a veterinarian gets a phone call and is informed that a cow or bull is in sternal recumbency, unable to rise, and it still seems bright and alert. Those are usually common clinical signs, and it boils down to having an animal that needs attention from the large animal veterinarian.

There are many causes for downer cows, but it is easiest to categorize as the “5 M’s.” They are metabolic, musculoskeletal, metritis, mastitis, and massive sepsis.

Metabolic disease includes a variety of differentials such as hypocalcemia (low calcium), hypophosphatemia (low phosphorus), hypokalemia (low potassium), hypomagnesemia (low magnesium), ketosis, hepatic lipidosis, pregnancy toxemia (diseases associated with the liver), hypoglycemia (low glucose), and others.

Musculoskeletal has a variety of differentials that are related to this “M.” Calving paralysis, fractures, sciatic/tibial nerve paralysis, coxofemoral luxation, ruptured peroneus tertius/cranial tibialis muscles, ruptured gastrocnemius muscle, myositis, lymphosarcoma (cancer), and many others.

Metritis, mastitis, and massive sepsis all may cause endotoxemia and septic shock. Mastitis is inflammation and infection of the mammary gland and metritis is the inflammation and infection of the uterus within 30 days post-partum, usually. History and a good physical exam are commonly a good indicator. Massive sepsis is commonly a consequence of a bad infection somewhere within the body. This infection may be due to a *E. coli* mastitis, a clostridial metritis, a perforated abomasal ulcer, traumatic reticulopericarditis or peritonitis (hardware disease), and others. Clinical signs and prognosis are usually dependent on the etiology involved.

It is imperative that the underlying cause be found, as the prognosis and treatment plan vary according to what caused the animal to go down. A more complete history should be obtained from the owner and a physical exam performed. The next thing I would do at this point is ask the owner how much this animal is worth. The client’s ability to pay is not unrealistic

and needs to be discussed. Bloodwork would be a reasonable next step. A complete blood count will help assess for signs of infection. A blood biochemistry would allow for assessment of electrolyte levels, and levels associated with kidney, liver, gastrointestinal tract, and muscle.

Nursing care is imperative for downer cattle. Rolling them from side to side is of utmost importance but can be time consuming and often frustrating for producers, especially when they have other jobs that need to be completed. The producer should make sure they have access to fresh water and food 24/7. If the patient is eating, bright and alert, or has a will to live, they may be a good candidate for the floatation tank to help prevent further muscle damage. Talk to your veterinarian about that.

Lifting them up using hip lifters and straps is the key but can be dangerous to the producer and animal especially if the animals is in poor body condition. Often cattle need that encouragement, and they trust they can stand and walk. Once the animal is safely lifted, always check for fractures, hip dislocations, swellings, analyze the condition of the legs, check the udder, and check to see if they are placing their weight on their feet or not. Often clients call 2-3 days later with concerns that the animals are still not standing and appear to have rapid weight loss. Decubital ulcers of the prominent bony points (hock, stifle, fetlock, pastern, carpus, etc) will become more prominent the longer the animal is down. These ulcers can become open and if over a joint euthanasia may be the most humane option.

These are some very quick causes for downer cattle. Always consult your veterinarian if you encounter a problem. If you have any questions or concerns, please contact us at the Alabama State Diagnostic Laboratory at (334) 844-7226.