



## West Central News

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# The “Downer Cow” Dilemma

**R**ecent reports of abused cows at a meat processing plant have spotlighted the problem of the downer cow. While “downers” are not entirely preventable, when proper treatment is not going to be provided to the cow, she should be humanely euthanized on the spot.

Let us focus on prevention. Why do cows go down? The reasons include:

- Blood Ca < 5 mg/dl; “milk fever”
- Blood Mg < 1.3 mg/dl; tetany = muscle tremors and convulsion, but not always, especially when accompanied by low blood calcium
- Blood P < 1.5 mg/dl; = severely low P – usually secondary to milk fever
- Blood K < 2 mEq/L; severely low K = mis-use of steroids for ketosis treatment
- Toxemia (coliform or gangrenous mastitis; uterine infection – metritis, a second, dead calf in uterus; abomasal ulcer; hardware; etc.)
- Neurologic Disease (ketosis, Listeria, Polio-thiamine deficiency or sulfur toxicity, Rabies, abscess in spinal column, “Mad Cow”, etc.)
- Damage to Nerves in Birth Canal (big calves, pulling calf before cow is fully dilated, pelvic fracture affecting sciatic nerve)
- Trauma (broken bones, small cows being ridden when in heat, “The Splits” from slick floors, hips banging on protruding objects)
- Lymphosarcoma (tumor within spinal cord of older cows)
- Energy/Protein wasting leading to muscle weakness; Pregnancy toxemia – marginally fed beef cows carrying twins; Johnes

For recently calved dairy cows, milk fever is by far the leading reason cows go down. In mid-lactation, dairy cows also can develop milk fever, but typically for slightly different reasons:

- Low blood Ca secondary to low diet Mg, or
- The cow is in estrus and failed to eat that day

Toxemia from coliform mastitis is the next most common cause of downer dairy cows. Even when successfully treated, with intravenous calcium or mastitis tubes, some of these cows will fail to stand. Why?

Dr. Victor Cox, of the University of Minnesota, demonstrated that cows laying on one side for six hours can develop nerve and muscle damage. The cow’s massive weight affects blood flow, damaging the tissues. Think of your leg “falling asleep”. Cows do not lay on one rear leg more than three to four hours. They get up and shift from one side to the other to maintain blood flow. Though milk fever – and many of the other disorders on the list – can be treated, failure to do so in less than six to eight hours after the cow first goes down will often result in a “downer cow”. Preventing these disorders is of paramount importance.

Fortunately, there is hope. Proper use of SoyChlor® will help correct DCAD and reduce the risk of low blood Ca in your fresh cows. Mg problems are also reduced as SoyChlor supplies readily available Mg. Together, this reduces the risk of milk fever, which helps eliminate the low blood P downer cow as well.

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