# **Potential Complication**

When carrying out surgical procedures it always wise to consider the complications that may present itself during the surgery or even before as simple as improper restraint techniques can lead to complications to the attended veterinary or cow got injury.

Complications that could arise during dehorning / disbudding:

* Several methods for disbudding cattle exist, but each method has its advantages and disadvantages. Hot-iron disbudding is commonly performed and is reliable but is quite painful.6 Electrical and butane hot-iron disbudding devices are available. Excessive heat applied during hot-iron disbudding can damage underlying bone.
* **Tetanus-** The use of tetanus antitoxin should be considered, and calves should be vaccinated for tetanus.
* **Sinusitis**- Sinusitis is a particular risk in older calves, due to the fact that as the horn grows, the sinus grows into the center of the horn, and thus removal of the horn creates a defect in the skull that extends into the sinus, and thus an opportunity for infection.
* **Myiasis** - Paste and hot dehorning are acceptable any time of year, but dehorning method that leave an open fresh wound should NOT but used during fly season.
* **Death**
* **Bovine papilloma virus (warts) and others Blood transmission diseases** - Dehorning instruments can act as a fomite for transmission of the papilloma virus and other blood disease, that’s why it is of importance that we disinfected between calves. This can be achieved by maintaining a bucket of disinfectant for rinsing between animals.
* **Prolonged healing time of the resultant surgical defect**
* **Regrowth of the horns (scur formation)-** Inadequate removal of the corium (horn-producing cells) will result in the regrowth of the horn, generally a partial growth that leads to scurs**.**
* **Stress & Inappetence-** Calves should be dehorned as young as possible to minimize stress. Use of local and systemic analgesics is recommended.

**For both Dehorning and Disbudding**

**Sedation** —Although sedation with xylazine which reduced the occurrence of avoidance behaviors during disbudding/dehorning, sedation alone was not effective in reducing the cortisol response to hot-iron disbudding. If procedure was not done properly or that animal my respond differently to the drug and may require more than expected, which can lead to administering an additional dose of the drug which could cause the animals to reach its toxic dose.

xylazine can have an adverse reaction on cattle’s including salivation, ruminal atony, bloating, regurgitation, hypothermia, diarrhea, bradycardia, premature parturition, &ataxia. When animals reach their toxic dose level administration of tolazoline doses of 2 to 4 mg/kg should suffice. In cattle, IV administration of tolazoline reverses pharmacologic effects of xylazine, thereby hastening recovery from xylazine-induced sedation.