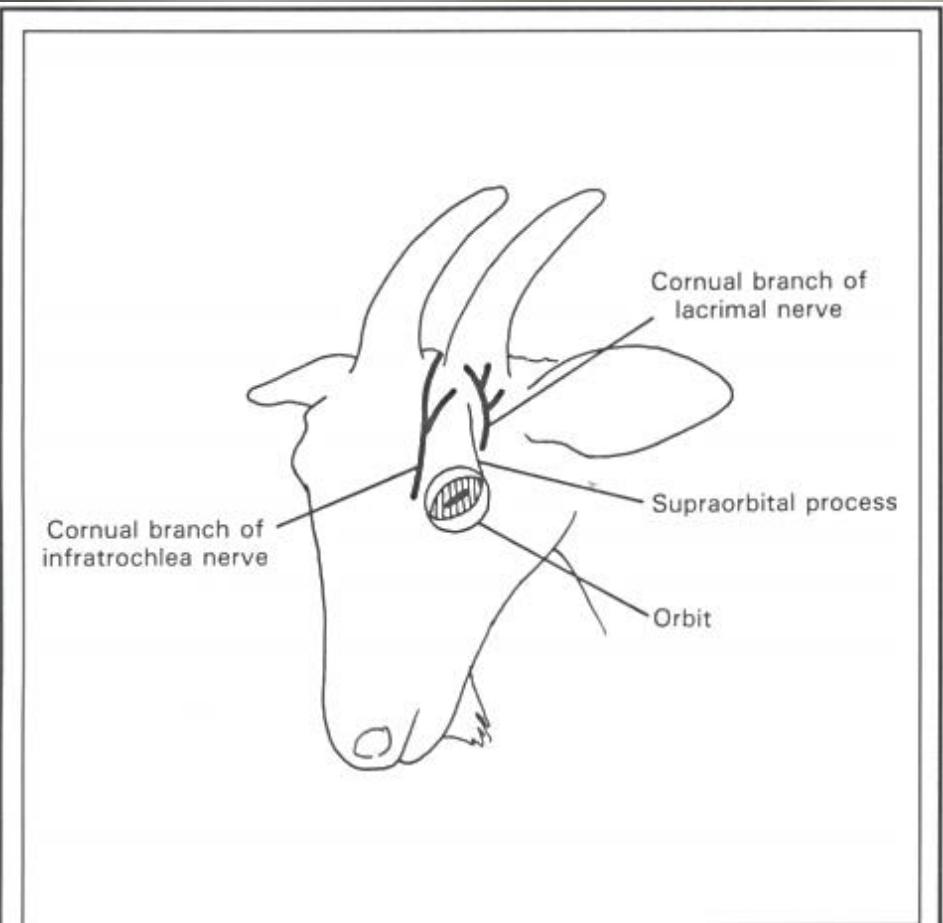


Disbudding the Young Goat

- The ideal time to disbud kids is when they are 4 to 14 days old.

Anesthesia and Surgical Preparation

- The hair around the horn buds should be clipped.
- The kid may be restrained in a dehorning box or held by an assistant.
- Sedation (Xylazine at 0.025 mg/kg IM OR Medetomidine at 15 µg/kg IM causes recumbency in the kids in 10 min) and
- Local anesthesia (Lidocaine 1.25 mg/kg IM using 1ml per site (4 in all) in kids in 5 mins) are appropriate to limit pain.
- Site for local anaesthesia:
 1. The cornual branches of the zygomaticotemporal (lacrimal) and infratrocchlear nerves provide sensory innervation to the horns.
 2. The site for producing block of the cornual branch of the lacrimal nerve is caudal to the frontal process of the zygomatic bone (root of the supraorbital process).
 3. The needle should be inserted as close as possible to the caudal ridge of the frontal process of the zygomatic bone to a depth of 1.0-1.5 cm.
 4. The syringe plunger should be withdrawn before injection to check that the tip of the needle has not penetrated the large blood vessel located at this site.
 5. The site for blocking the cornual branch of the infratrocchlear nerve is at the dorsomedial margin of the orbit.
 6. The needle should be inserted as close as possible to the margin of the orbit and under the muscle to a depth of about 0.5 cm.
 7. Prick around the base of the horn with a needle to ensure the anaesthesia was effective, no response should be observed.



Nerve block for dehorning. Both the cornual branch of the infratrocchia nerve and the cornual branch of the lacrimal nerve must be blocked for dehorning goats and disbudding kids. Two to 3 ml of 2 per cent lignocaine at each site for the adult goat and not more than 2 ml (preferably 1 ml) of 0·5 per cent solution at each site in young kids

<http://www.sciencedirect.com/science/article/pii/092144889190039S>

<https://veteriankey.com/anaesthesia-of-sheep-goats-and-other-herbivores/>

Turner and McIlwraith's Techniques in Large Animal Surgery 4th Edition by Dean A. Hendrickson and A. N. Baird.

Farm Animal Anesthesia Cattle, Small Ruminants, Camelids, and Pigs Edited by HuiChu Lin and Paul Walz.

Farm Animal Surgery Edited by Elizabeth M. Fathman.

Surgical Technique

1. Dehorning iron with a $\frac{3}{4}$ to 1-inch tip is used for heat cautery.
2. The dehorning iron should be placed over the bud in a rocking motion and held for 5 seconds allow to cool and repeat for another 5 seconds per horn bud.
3. The ring of skin around the horn bud should be copper coloured all around.
4. Black colour represents burned hair and is indicative of inadequate burning.
5. Burn the cap of the horn to destroy the central core.

Postoperative Management

- Inject the kids with 300- 500 IU tetanus antitoxin.
- Administer antibiotic spray, anti-myiasis spray and anti-inflammatory agents.

Complications and Prognosis

- Most common complication is scur formation when inadequate heat does not destroy the germinal tissue/horn corium.
- Thermal injury (from overzealous burning) can lead to thermal meningitis or cerebral malacia. The frontal bone's thinness and the absence of a frontal sinus at the age kids are disbudded make them prone to thermal meningitis.
- Signs of thermal meningitis include unresponsiveness, ataxia and an inability to nurse.
- Good prognosis.