

Best practice farms promote pain-free lives for calves by avoiding unnecessary painful procedures, or when unavoidable, by ensuring an adequate pain management protocol is used.

Why is this important?

Disbudding and castration are painful procedures for calves to experience, producing both acute and chronic pain, and should therefore be avoided as much as possible. Non-polled calves are disbudded to prevent development of their horns, primarily to reduce the risk of injury or aggression towards other animals or handlers during routine housing, movement and management. Male calves are castrated to reduce aggression between males, to allow male and female cattle to be housed together without risk of unwanted mating, or to promote optimal meat production.

All the practices recommended in this factsheet are also applicable in case of other types of surgery performed on a calf. Such surgery shall be decided and performed by a veterinarian that will take the relevant measures to reduce pain.



All calves should be treated in the same way to ensure their welfare and health, whatever their economic value and future destination.



Good practice

- ✓ Clean water must always be available in the pens where calves are waiting before and after procedures.
- ✓ When sedation has been used for an elective procedure, calves must be monitored carefully, when recovering from sedation, to ensure they do not choke and are fully conscious when consuming feed or water.

Additional good and best practices to manage nutrition of calves are detailed in the  **Calf Nutrition factsheet**



Good practice

- ✓ Elective surgical procedures such as disbudding or castration should be carried out in a separate area or pen, which provides shelter from excess temperature or rain, provides adequate clean and dry bedding and sufficient space for calves to lay down comfortably. The calves should be kept in this pen, close to others (for social support) but carefully monitored to ensure they don't injure themselves whilst sedated and to ensure pain relief given is adequate.



Best practice

- ★ **Best practice** farms use a dedicated 'medical area' on the farm, that is distinct from the 'hospital area' and only used for medical and surgical procedures on healthy calves e.g. during elective procedures and post-operative recovery. This area will have clean, easily disinfected flooring (e.g. rubber mats) and lying areas, running water, electricity and heat sources available for recovering calves. It should be located where they maintain visual contact with other calves or cows, and tactile contact only with calves of a similar health status.



Good practice

- ✓ Where calves have undergone surgical procedures, such as disbudding or castration, they should be moved to an isolation area for the recovery period, where they are kept warm (e.g. using heat lamps or rugs) and their position changed regularly if in sternal or lateral recumbency.
- ✓ Where painful procedures, such as castration or disbudding, are to be performed, ensure every care is taken to minimise the stress and pain experienced, as these impede recovery and accumulate with other stressors to negatively impact calf health and welfare. Use of appropriate medication (anaesthesia, sedatives and pain relief), reducing environmental stressors and using low-stress handling will help mitigate these risks.
- ✓ Where castration or disbudding of calves cannot be avoided, they should be performed within the first 4 weeks of life. Dehorning or castration after this age should be avoided, as they are much more painful and require more complex techniques to handle animals and control pain.
- ✓ Where several options are available, techniques or equipment utilised should be selected to minimise the severity and duration of pain induced.
- ✓ Castration using rubber rings is not authorised in some countries and should be avoided. The pain caused by this technique lasts for a long time and results in slower and less effective healing.
- ✓ Surgical castration performed by a veterinary surgeon is preferable, or using a Burdizzo, by either a veterinarian or an appropriately trained person. Both techniques should only be used in conjunction with effective local anaesthesia and analgesia, and according to local rules and recommendations.
- ✓ Disbudding should only be conducted using a hot iron by an appropriately trained person, in conjunction with effective local anaesthesia and analgesia, and according to local rules and recommendations.
- ✓ Chemical disbudding is not authorised in some countries and should be avoided.
- ✓ When disbudding and castration are to be carried out on a male calf, it is appropriate to perform both at the same time and place to limit the repetition of stressful handling and recovery periods.



- ✓ The farms' protocol for pain management (analgesia) must be based on advice and prescription by their veterinary surgeon. The equipment and procedures to be used for castration or disbudding must also be discussed with the veterinarian.
- ✓ Local anaesthesia should be administered, according to veterinary prescription, before starting the procedure. Adequate time must be given to allow the local anaesthesia to take effect before the painful procedure is started and this should be checked for effectiveness prior to commencement. Local anaesthesia will reduce the calves' adverse reaction to the equipment (disbudding iron, Burdizzo or scalpel) touching their skin, resulting in numbing of the skin and underlying tissues for a short time after the procedure has been carried out.
- ✓ Analgesia (pain relief) using a non-steroidal anti-inflammatory drug (NSAID) should also be administered to provide longer acting pain relief (over 24 hours). The appropriate choice of the drug and of the administration protocol must be carried out under veterinary prescription and according to local regulation.
- ✓ Staff engaged in administration of any medications to the calves should be trained by a veterinary practitioner or suitably qualified advisor to ensure appropriate implementation of the procedures and prescriptions defined by the veterinarian, such as appropriate drug, dosage, route of administration and assessment of technique.




Best practice

- ★ **Best practice** farms aim to reduce or eliminate the need to castrate or disbud calves through adapting their breeding policies, management practices or facilities. The frequency of producing polledness varies with breeds, but can be selected for.
- ★ Where castration and/or disbudding cannot be avoided, **best practice** farms use sedation in addition to the local anaesthesia and longer-term analgesia. Sedation will ensure the calves are more relaxed prior to the procedure being performed and less likely to struggle, reducing the risk for both them and their handlers. The appropriate choice of the drug and of the administration protocol must be carried out under veterinary prescription and according to local regulation.
- ★ **Best practice** farms adapt agreed protocols in consultation with the farms' veterinary advisors, whenever a drug is not giving the anticipated effects. This can result from issues with drug dosage calculation or administration, or individual differences in terms of response to medication or tolerance of pain.
- ★ **Best practice** farms seek veterinary advice before revising the protocols, where complications occur in relation to any aspect of the disbudding or castration.




Good practice

- ✓ Low-stress handling requires handlers to behave calmly and patiently, ensuring that potential stressors (e.g. potentially scary noises, objects, lights or shadows) are minimised in the environment. Calves should be encouraged to move by harnessing their natural motivation (e.g. staying with the group, accessing pasture or food), rather than more stressful or painful methods. Positive reinforcement helps calves learn quickly and develop cognitive flexibility, enhancing their resilience.
- ✓ Calves must be regularly monitored for signs of continuing pain on the days following the procedure.
See  **Calf Health factsheet**



Best practice

- ★ **Best practice** farms use positive reinforcement to undertake common farm practices e.g., handling, moving between areas or loading into trailers. Positive reinforcement can involve feeding or grooming (if calves are habituated to it), and treats (e.g. mashed or pieces of apples, pumpkin, banana or other sweet fruits and vegetables).
- ★ **Best practice** practice farms use validated pain scales for cattle to assess response to treatment and monitoring or either improvement or deterioration in levels of pain experienced by calves (0 = no pain to 4 = very severe pain). Training staff in observing, recording and responding to changes in pain scales will ensure efficient use of medications as well as improving the welfare of the calves. See  **Calf Health factsheet**



Summary



Farm

Painful interventions should only be carried out when no other solution exists. By providing training and documenting protocols for elective procedures, in consultation with the farms' veterinary advisors, farms can reduce complication rates and improve both efficiency and results.



Calves

Pain is a stressful experience which can impede other activities, such as eating, drinking and resting. Painful interventions have the potential to harm the human-animal relationship which makes future handling more challenging.



Handler

Where adequate training and guidance have been provided, animal handlers will feel more confident and equipped to adapt where necessary. Correctly sedated and pain relieved animals are safer to handle and the potential for damaging the human-animal relationship is reduced.

Take pride in all of your farm's good and best practices towards animal welfare!

Additional resources



Care4Dairy.eu