

Section 1

Care of The Newborn Calf



Introduction

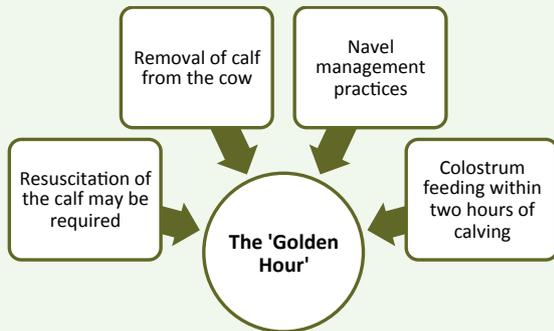
The most critical period of a calf's life is the first hour after birth, termed the 'Golden Hour'. Correct calf management and feeding practices during this time influence the subsequent health and development of the calf throughout its life, and its overall lifetime performance.

- ① What must take place during the 'Golden Hour'?
- ② Assessment of newborn calf vitality.
- ③ Calf resuscitation.
- ④ Removing the calf from the cow.
- ⑤ Successful umbilical care.

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① What must take place during the 'Golden Hour'?

During this crucial one hour period the following actions must take place:



Delaying any of the above can result in an increased risk of calf disease incidence and mortality.



The 'Golden Hour' begins once the calf has fully emerged.

② Assessment of newborn calf vitality.

An assessment of the calf's vigour should be made immediately after calving. The following individual indicators should be monitored: responsiveness to external stimuli, muscle tone, sucking reflex, the time it takes for the calf to lift its head and the time to first standing.

Table 1. Normal time frames for some indicators of calf vigour.

Vigour Indicators	Minutes post calving
Lift its head	3
Attain sternal recumbency *	5
Attempt to stand	20
Stand spontaneously	60-90

* sitting up on the brisket with the legs tucked under the body



This calf has attained sternal recumbency (sitting up with its legs tucked in under its body).



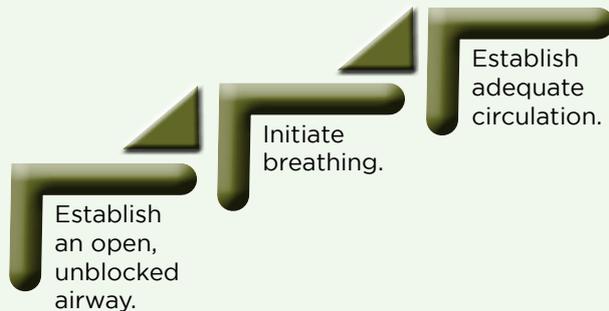
The calf should have attempted to stand within 20 minutes of calving.

③ Calf resuscitation.

In general, most calves will not require resuscitation. However, calves that experience difficult or problem births may benefit from resuscitative care during and/or immediately after calving. In order to identify calves that need resuscitation the farmer must be present at the calving and look out for signs of calf distress.

Identification of high risk calves requiring resuscitation (Animal Health Ireland)		
Before Birth	During Birth	After Birth
Identified by the predicted likelihood of a problem calving (premature, wrongly presented calf, twins, slow calving, tight calving, hard calving).	Identified by large limbs, swollen tongue or head, bluish gums and muzzle, yellow/brown/red stained birth fluids and poor reflex response to pinching between the hooves.	Identified by lack or absence of breathing, gasping or bellowing, lying flat, unable to lift the head, slow to sit up, stand and to suck.

The cornerstones to successful calf resuscitation are:



HOW TO:



Perform successful calf resuscitation

- Suspend the calf upside down for a short period of time (never longer than one minute).
- Pour cold water over the calf's head and/or stick a straw or finger into its nostrils.
- Sit the calf upright on its chest.
- Dry off very weak, cold, wet, shivering calves and place them under an infra-red lamp.
- Consult a vet regarding other resuscitative options such as stimulant products.



Rubbing down the calf can help to initiate breathing.

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④ Removing the calf from the cow.

When born, a calf is immediately at risk of picking up infections via the navel, mouth and nostrils from the calving environment, the cow and any other animals in the same airspace. In addition, if the calf is left with the mother, you cannot be sure how much colostrum the calf has received or when they received it.

Because of this, the calf should be removed ('snatched') from the cow immediately after birth and placed in a clean, freshly-bedded area where it can be fed the correct amount of colostrum by bottle feeding or stomach tubing.



A calf barrow should be used to transport the calf from its birth location to a calf pen.

⑤ Successful umbilical care.

The spread of infection from the environment into the calf via the navel cord is the cause of navel or joint ill (see section 6, Calf health). Preventing navel ill is based on a number of farm hygiene and calf care/immunity principles that must be optimised at and shortly after birth.

In the first week of life, the navel should be checked for excessive bleeding, pain, abnormal swelling, odour or pus, and treated as recommended by your local vet.

If a farm has recurring navel ill problems and already practices navel cord dressing, altering the procedure (e.g. change from iodine to chlorhexidine, changing from a teat dip to a navel dip solution, dipping instead of spray), may help to prevent navel ill. If navel issues continue, stop cord dressing altogether and focus instead on optimising calf immunity and calving hygiene.

HOW TO:



Prevent navel ill

- Good maternity pen hygiene. Ensure calves are born in a clean, freshly bedded calving unit.
- Minimise the length of time a calf spends in calving pens.
- Ensure adequate early intake of good quality colostrum (Colostrum 1,2,3 rule, see chapter 3).
- Practice navel hygiene.
- Practice antisepsis (chlorhexidine or iodine) if navel ill is a problem on farm and hygiene is already optimal.
- Check the calf regularly for signs of navel ill.



Disinfecting the navel is a key task in the first minutes of the calf's life.