

HANDLING CALVES DURING DIFFICULT BIRTH (Level 3)

Topic	Training & information Content
6.1	Selection of bulls, use of sexed semen, feeding management of dry cows
6.1.1	The calving process
6.1.2	Use of equipment around calving
6.1.3	Care of cow and calf after calving
6.1.4	Colostrum management
6.2	Milk (replacer) feeding schedule
6.3	From birth to weaning
6.4	Disease and health management
6.5	Handling of calves during difficult birth
6.6	Young stock rearing info and Key Performance Indicators



1. You will learn about (learning objectives):

- The normal process of parturition.
- How to recognize abnormalities during the parturition process.
- What to do in case of abnormalities during the process.
- How to treat the calves immediately after they are born.



2. Background

- Calving is an annually recurring process that in most cases often runs smoothly. It is therefore very important that the farmer always keeps a close eye on the progress of the calving process.
- The number of times that the calving process deviates and does not go as desired can be due to various reasons.
- These abnormalities can have major consequences to the calf, many calves will die as a result of the abnormal birth process, and often little can be done about this.



2.1 Background Cont'd...

- But there are also situations where the farmer himself can still do the necessary to keep the calf alive.
- Acting accurately with sufficient knowledge and skills can certainly save the lives of many calves.



Note: When assistance is required according to the responsible person, then we speak about a difficult birth.



3. Normalities in calving process

If you deliver a live calf, it should:

- Take its first breath in 30 seconds.
- Lift its head in 1-2 minutes.
- Roll onto its chest in two minutes.
- Attempt to stand in 15 minutes.
- Begin shivering in 30 minutes.
- Be standing in one hour.
- Be suckling in two hours.



3.1 Normalities in calving Cont'd...

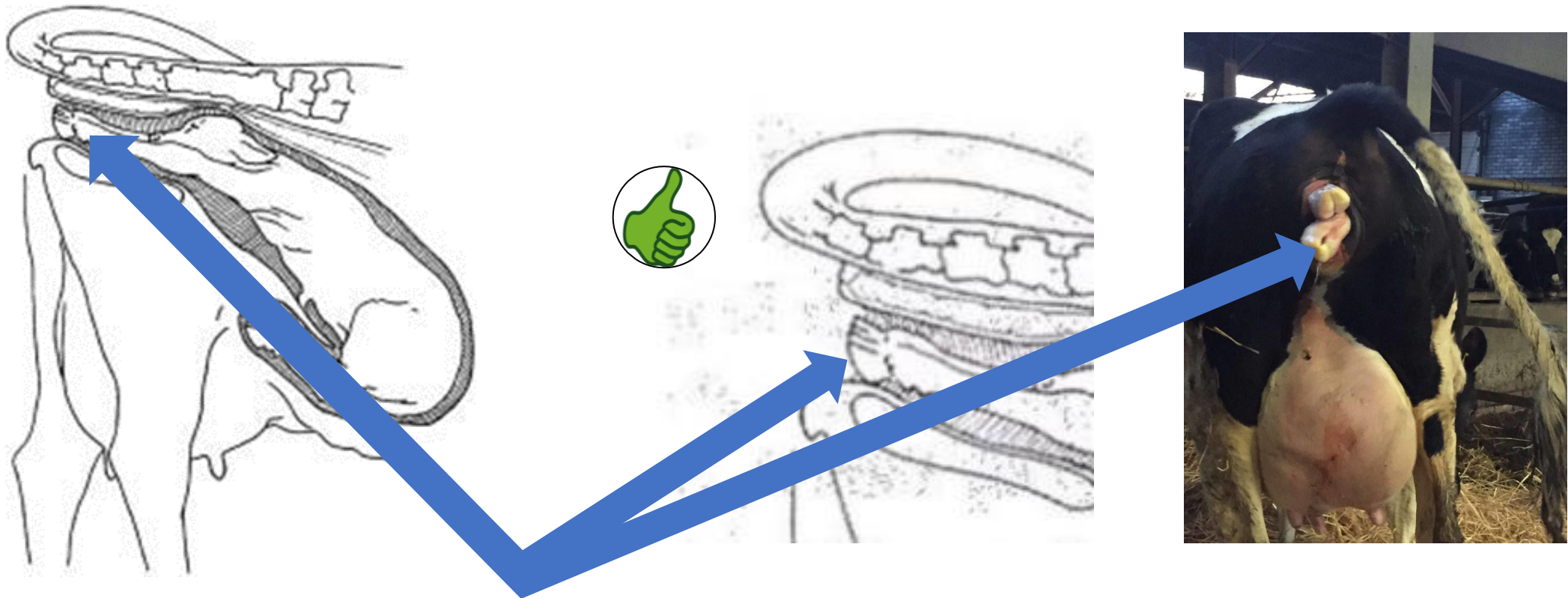
The calf should also have:

- A rectal temperature of 38.8-39.4° celcius after birth and stabilizing to 38.3-38.8°C within one hour.
- A Pulse rate of 100-150 beats per minute, regular rhythm, strong pulse.
- 50-75 breaths per minute.
- No swelling or discoloration of the head, limbs or tongue.
- Pink, moist mucous membranes.



3.2. Normal calving down: Dew claws downward

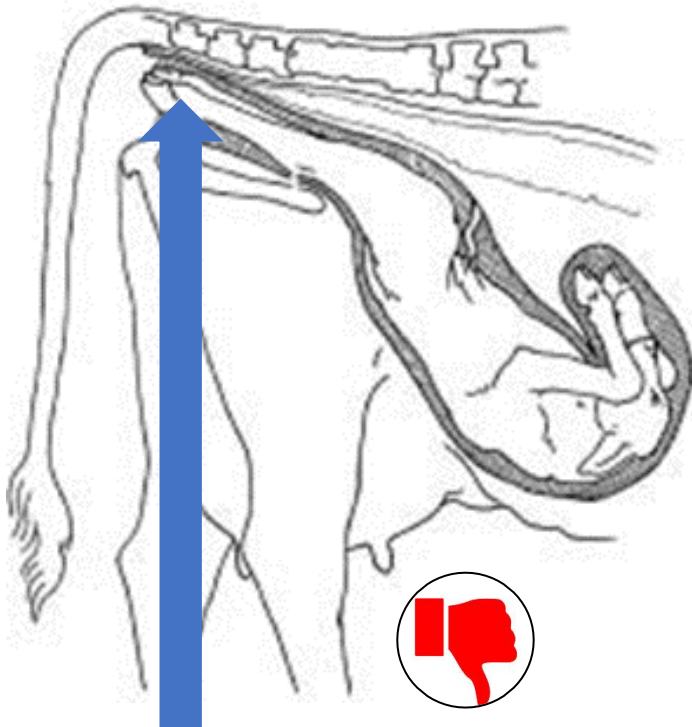
- Always pay attention to the position of the dew claws. When calf is in normal position, dew claws are always pointed downwards.



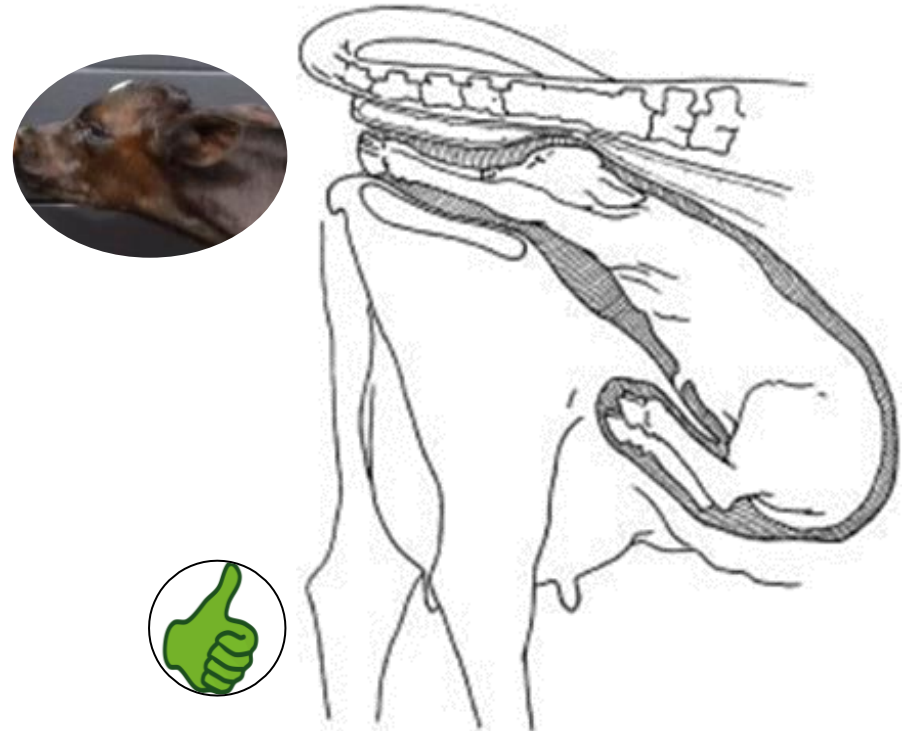
Normal presentation, dewclaws pointed downwards, one can feel the head.

3.3 Normal calving down: Legs and Head

- Normal presentation of legs is not always correct. The calving process is delayed because calf is presented in supine position.



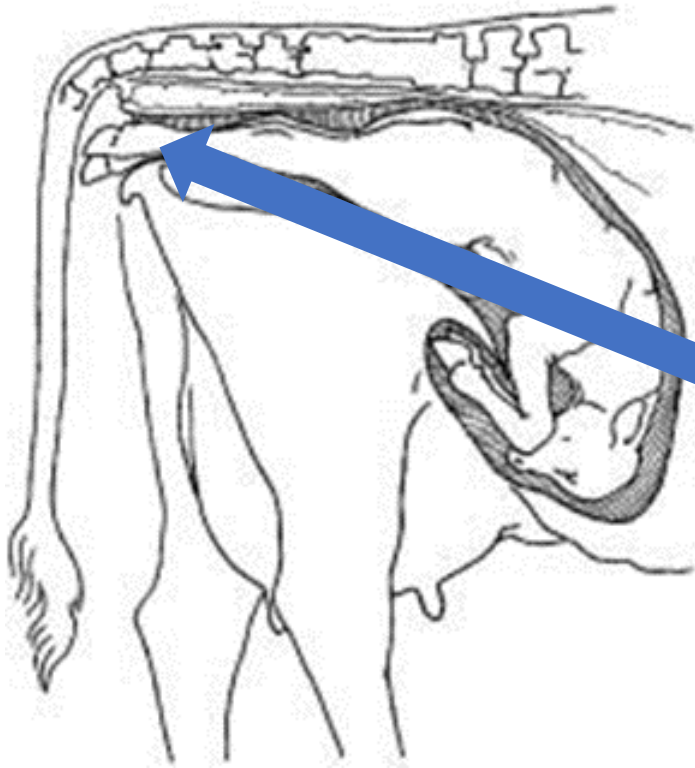
Legs seem to be in right position, but there is no head.



Legs are presented correctly, and the calf's head is nearby.

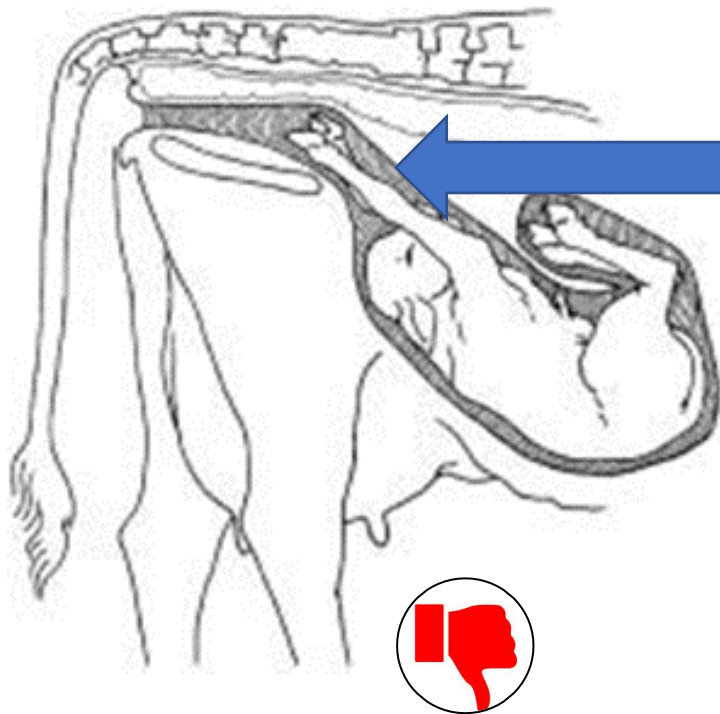
4. How recognize abnormal calving: Dewclaws upward

- The first sign of abnormality is when the dew claws are pointed up-wards. Most probably the calf is in breech position.

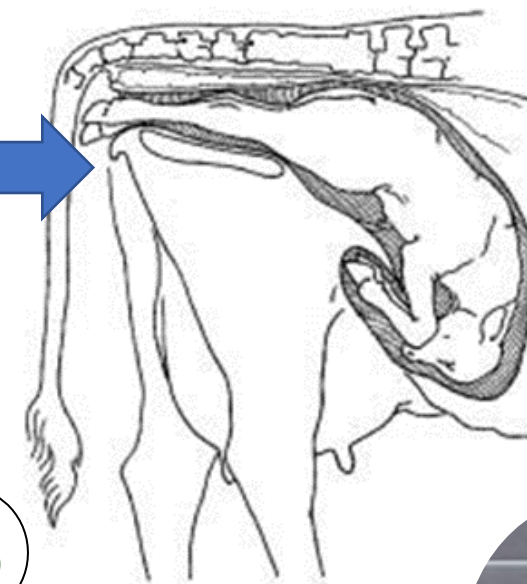


4.1 Abnormal calving cont'd...

- Sometimes there is **no progress** during calving – could the calf be in a breech position?



Breech position?



Dew claws upward!
Tail present
=
Breech position.



- No tail!
- External assistance is required immediately.
- Calf must be turned before it enters the birth canal.

5. What to do during abnormal calving: Breech position

- Ropes/chains are necessary to assist the cow getting the calf out in time.
- Inaccurate behavior can quickly lead to death of the calf as a result of suffocation/drowning in its own amniotic fluid.
- The correct application of the pull strings (OB chain) here is of great importance



5.1 Placing OB chain

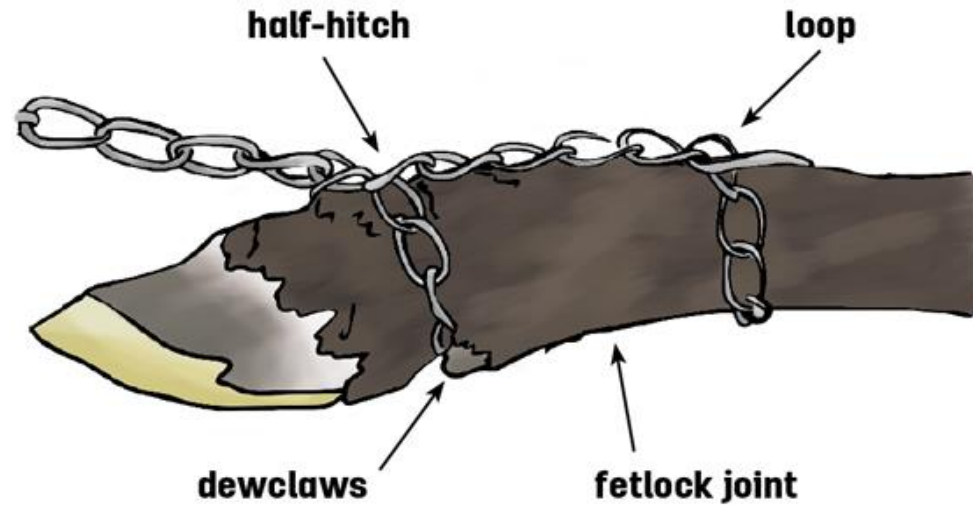


Illustration courtesy of Alabama Extension.



Video demonstration placing OB Chains

https://www.google.com/search?q=correct+placement+obstrical+chains&rlz=1C1GCEA_enNL914NL914&oq=correct+placement+obstrical+chains&aqs=chrome..69i57j33i10i160.18083j0j15&sourceid=chrome&ie=UTF-8

5.2 Placing OB chain Cont'd...

Beware: Two strong people can exert a force of 180 to 270 kg while delivering a calf. Mean force required to fracture the leg is 170 kg.



Incorrect!

This can:

- Brake the calf's leg(s).
- Pull off the claws.
- Attain 100% traction (more kgs, which is dangerous)

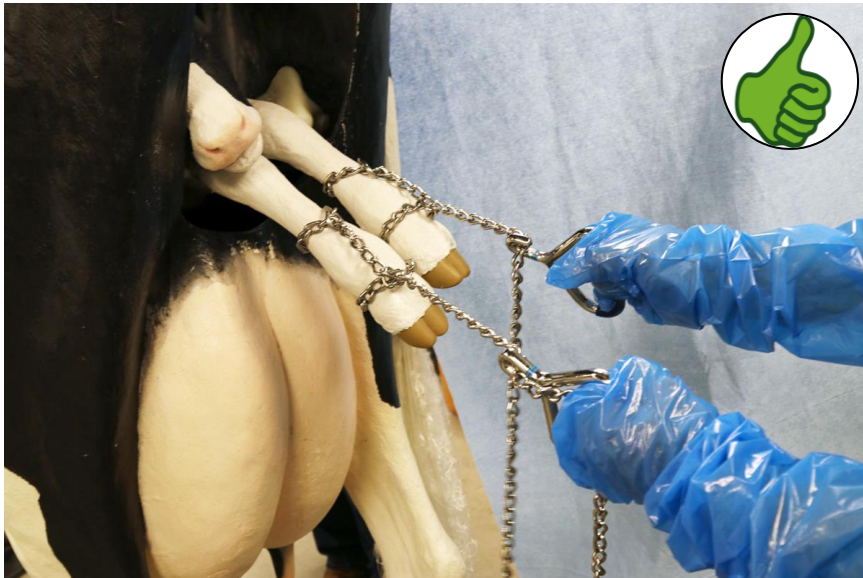


fetlock joint

Correct

5.3 Extraction of the calf

- Pulling too hard on the calf will lead to severe muscle acidification in the calf. This severe acidification increases stress enormously and will certainly have an impact on the respiratory rate immediately after birth.



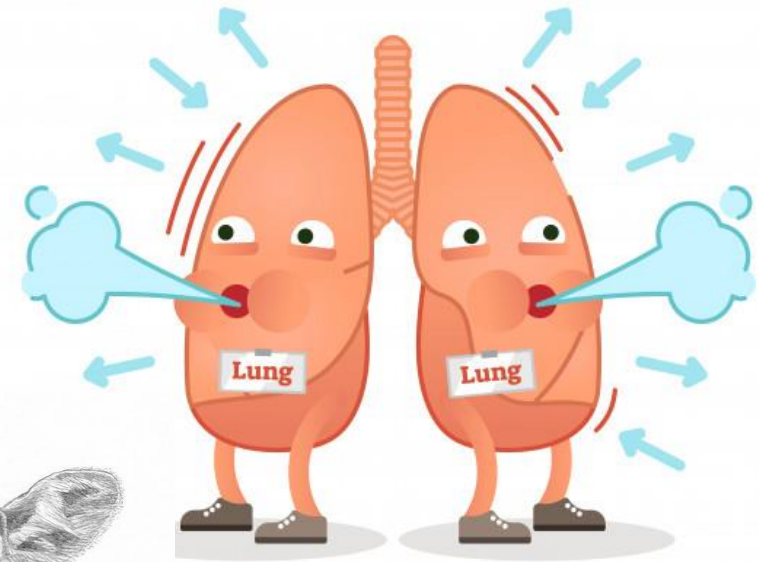
“Controlled” extraction



Forced extraction

6. What to do to calf after birth: Assisted breathing

- Assistance of the calf to breath is necessary in case of:
 - Long calving process.
 - Forced extraction.
 - Abnormal presentation(s).
 - Amniotic fluids in lungs.
 - Dystocia.
 - Twin birth.
 - General weakness.
 - Early birth.



6.1 Assisted breathing Cont'd: **Recovery position**

- If a calf needs assistance breathing, place it in the recovery position by rolling the calf into the sternal position where its chest and stomach are on the ground.



6.2 Assisted breathing Cont'd: Front and back legs

- The front and back legs should all be extended straight forward. This gives both lungs an equal opportunity to expand by reducing the amount of weight on them.



6.3 Assisted breathing Cont'd: Vigorous rubbing

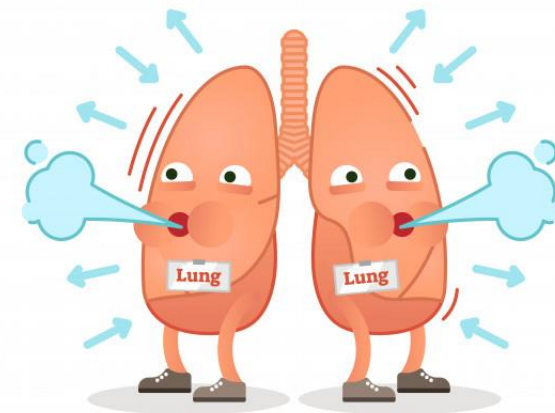
- Vigorous rubbing can also be used to stimulate a calf's breathing.



6.4 Assisted breathing Cont'd: Cold water



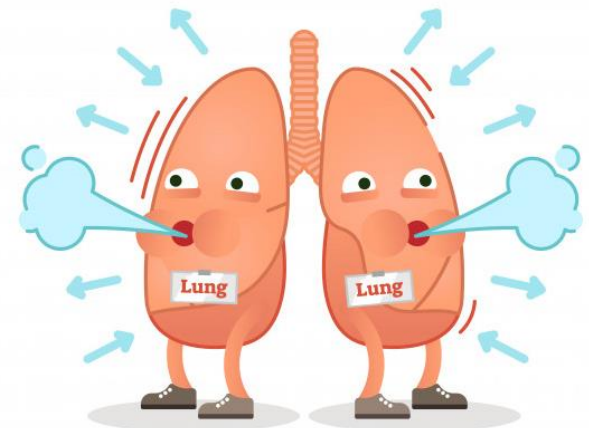
- Pouring a bucket of cold water over the newborn calf often induces a startle response and will often help induce a cough response and then optimize/activate breathing.



6.5 Assisted breathing Cont'd: Calf's nose



- Finally, tickling the inside of a calf's nose with straw or a small amount of cold water in the ear may stimulate the calf to gasp and take a breath.



7. What to avoid after birth

DON'T!

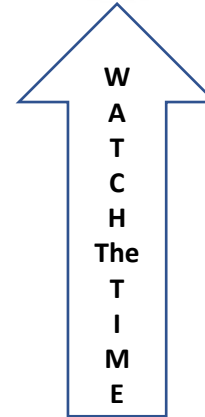
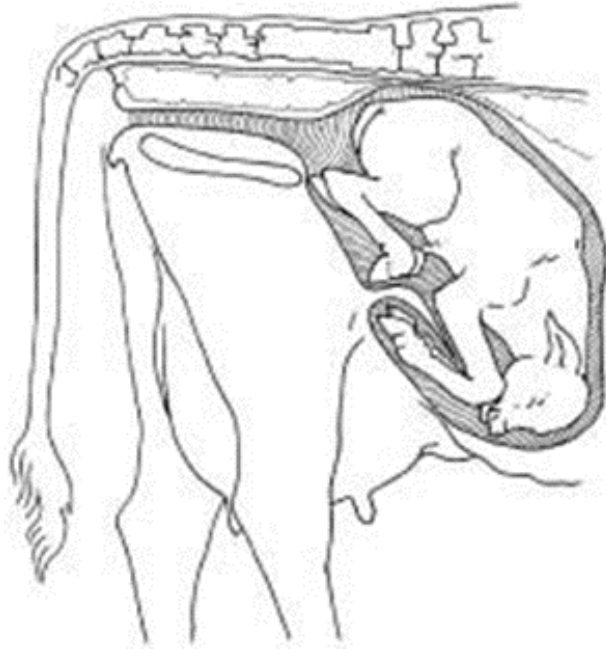
Never hang the calf upside down

- Hanging the calf upside down might be harmful for two reasons:
 - i. most of the liquid comes from the abomasum.
 - ii. hanging the calf upside down increases pressure on the chest, making it more difficult for the calf to breathe.

It is a misunderstanding; many people think that the liquid comes from the lungs.



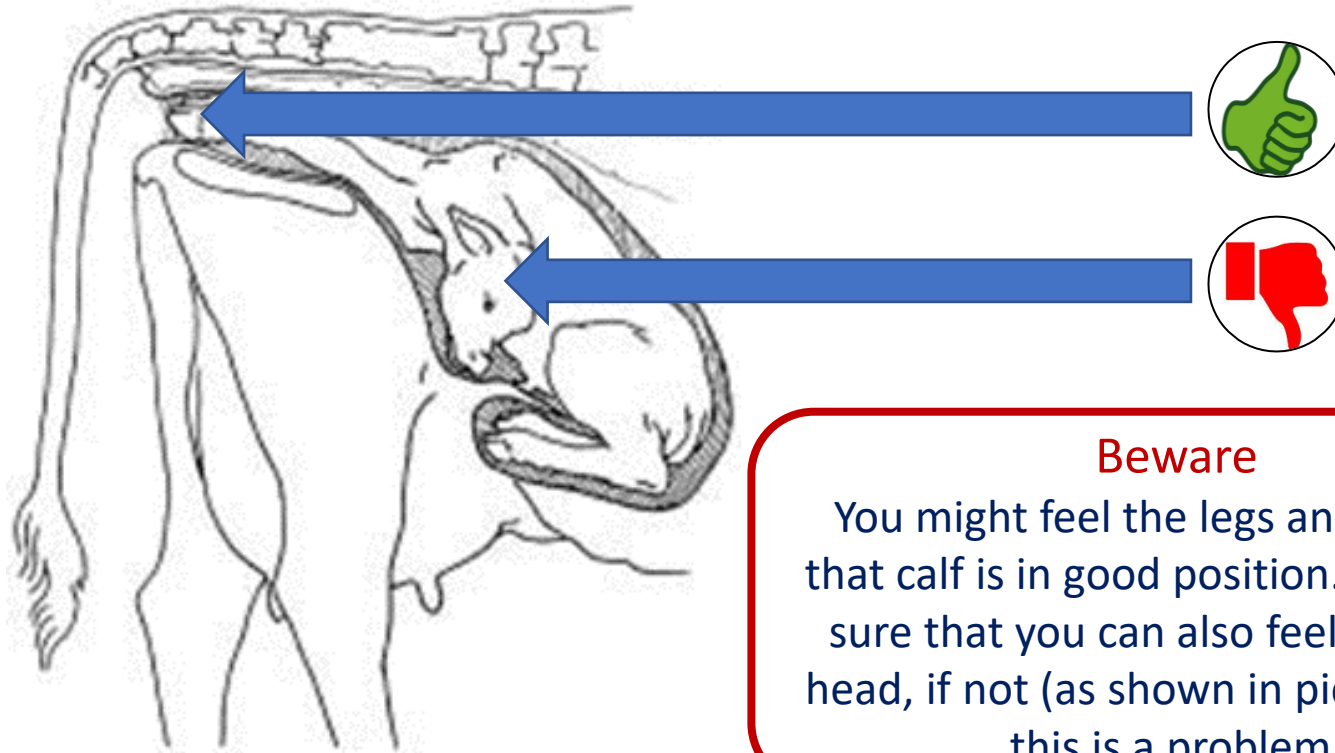
8. Before birth/Labour period can hint Calf presentation



Delayed action can cause calf death before birth

- Sometimes the cow is in heavy labour without visible progress/changes.
 1. She needs immediate check.
 2. Only the calf's tail is visible,
 3. Call the veterinarian.

8.1 Before birth/Labour period Cont'd...



This position is mostly associated with dead before birth

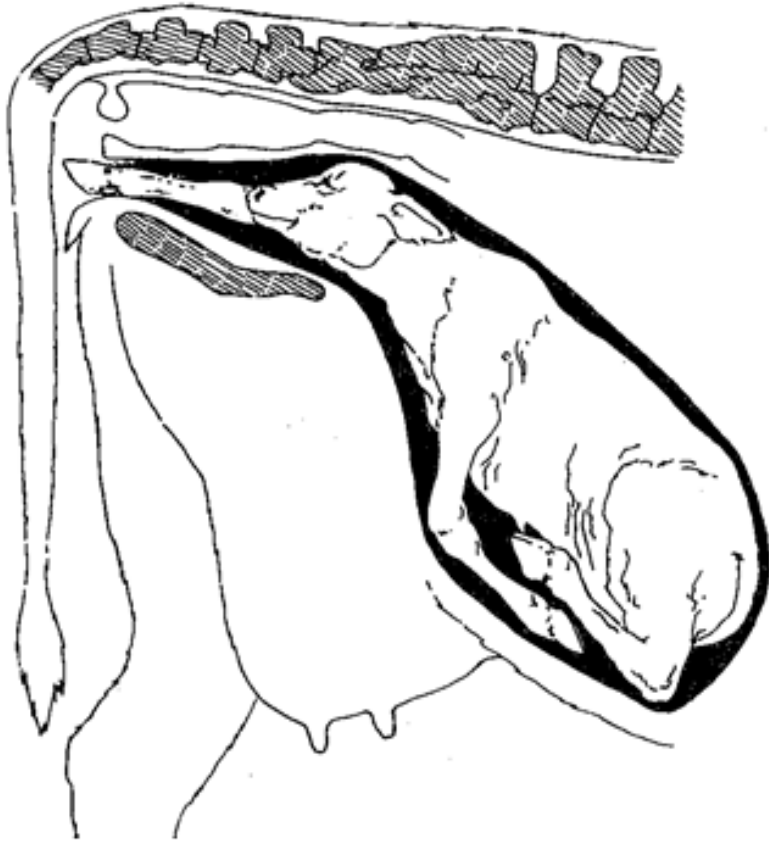
- There is no time to loose when calf is in this position. In many cases, the calf has died already before parturition did start.

9. Other Calf presentations and how to handle them

- There are a number of regularly occurring "deviant" positions which you can adjust yourself (with some practice).



10. Shoulder Flexion



Shoulder Flexion

- To adjust the position of the calf into normal, it is more comfortable to let the cow stand up.

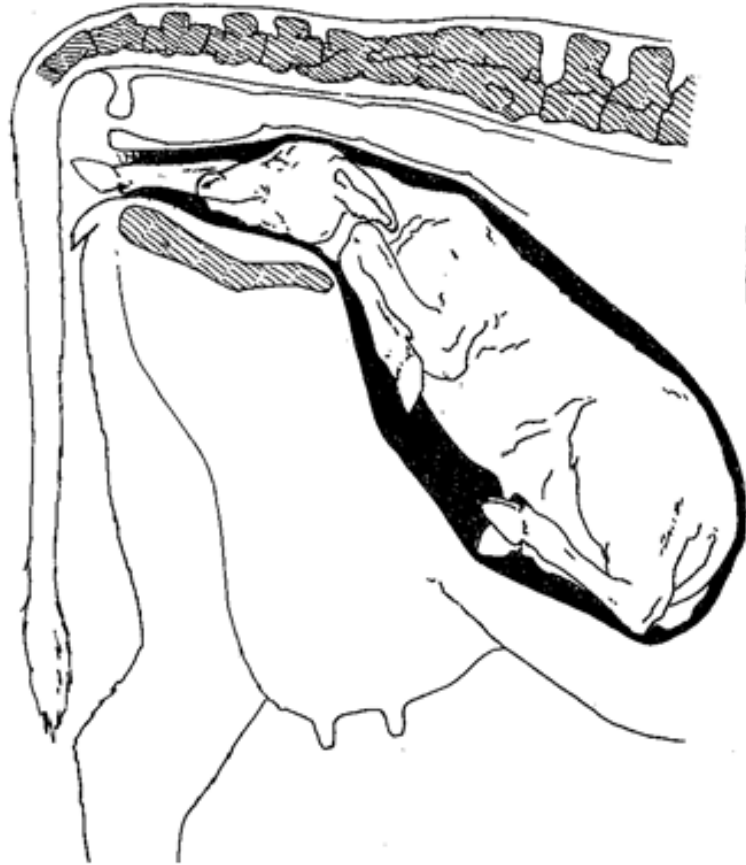
10.1 Shoulder Flexion Cont'd..



Shoulder Flexion

1. Push the calf back.
2. Grab calf's leg.

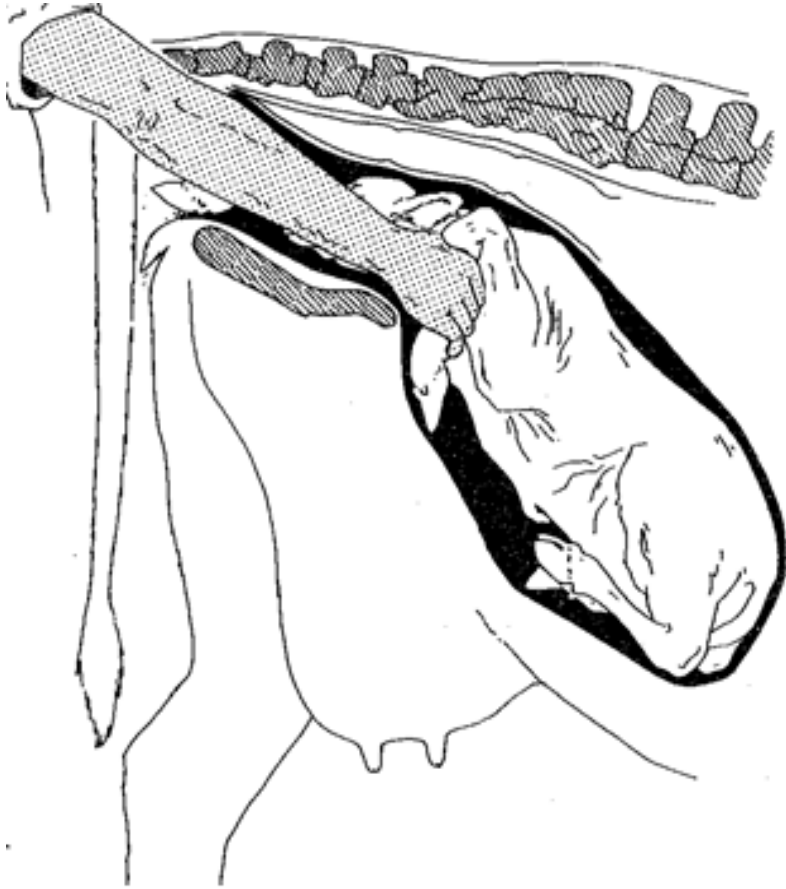
10.2 Shoulder Flexion Cont'd..



Shoulder Flexion

1. Push the calf back.
2. Grab calf's leg.
3. Bring leg just ahead of birth way.

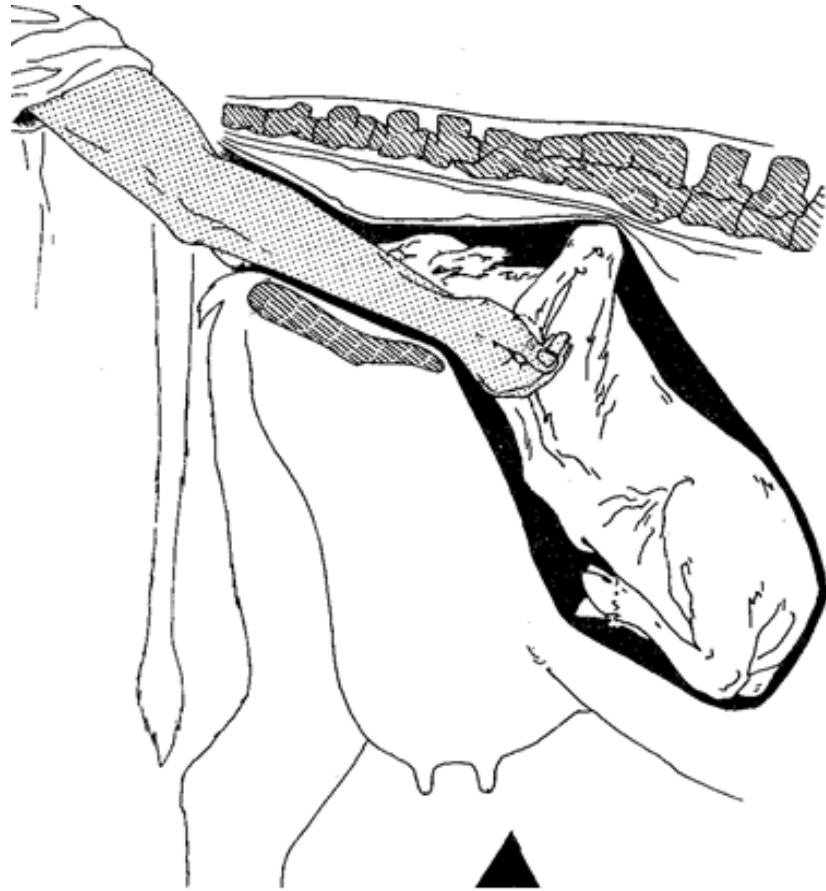
10.3 Shoulder Flexion Cont'd..



Shoulder Flexion

1. Push the calf back.
2. Grab calf's leg.
3. Bring leg just ahead of birth way.
4. Go grab the leg between knee and hoof.

10.4 Shoulder Flexion Cont'd..



Shoulder Flexion

1. Push the calf back.
2. Grab calf's leg.
3. Bring leg just ahead of birth way.
4. Go grab the leg between knee and hoof.
5. Protect the calf's hoof in the palm of your hand.
6. Bring calf in normal position.

11. Hock Flexion

Hock Flexion

1. Push the calf back.



11.1 Hock Flexion Cont'd...

Hock Flexion

1. Push the calf back.
2. Bring calf's legs into birth way one by one.
3. If enough space, use both hands.
4. Push the hock, pull the "protected" hoof.



12. Johne's position



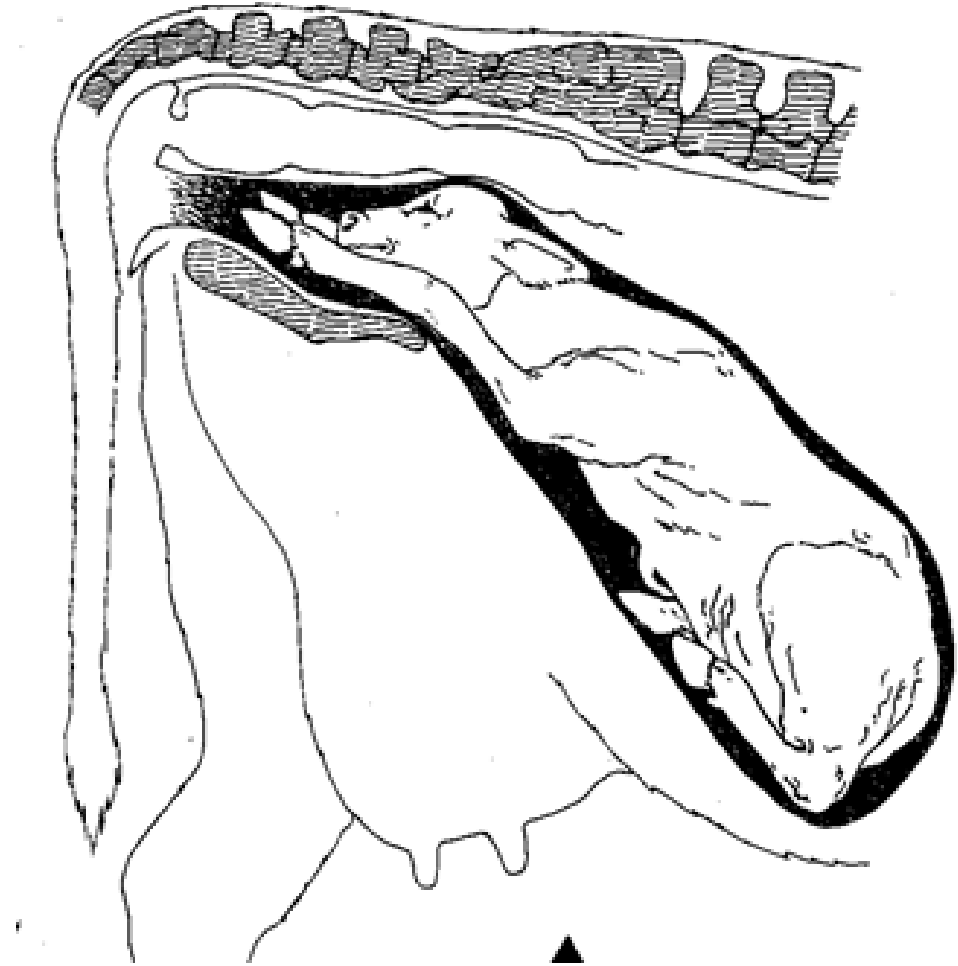
Johne's position

- In this position, the head of the calf has moved too far forward in relation to the front legs.
- The knee sits on the pelvic floor and the fore-arm stops the calf from moving further. To correct this you have to push the calf back and straighten the legs out.

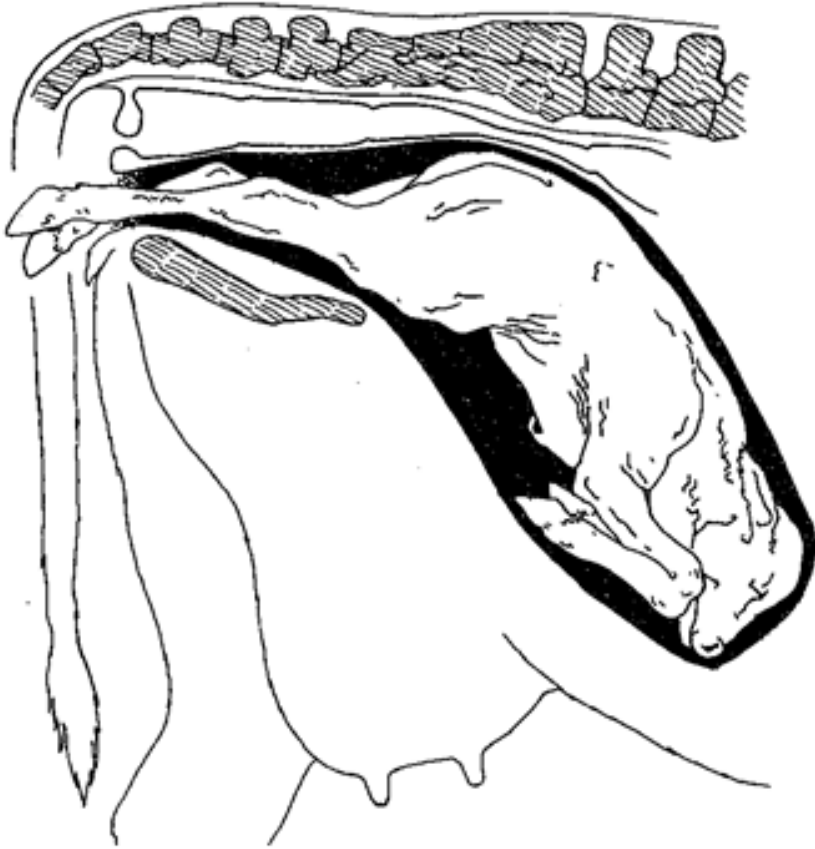
13. 'Sub'-normal presentation

'Sub'-normal presentation

In this position the calf can be delivered once the head of the calf is out. You first have to stretch the two front legs, then pull them down towards the cow's udder.



14. Posterior presentation



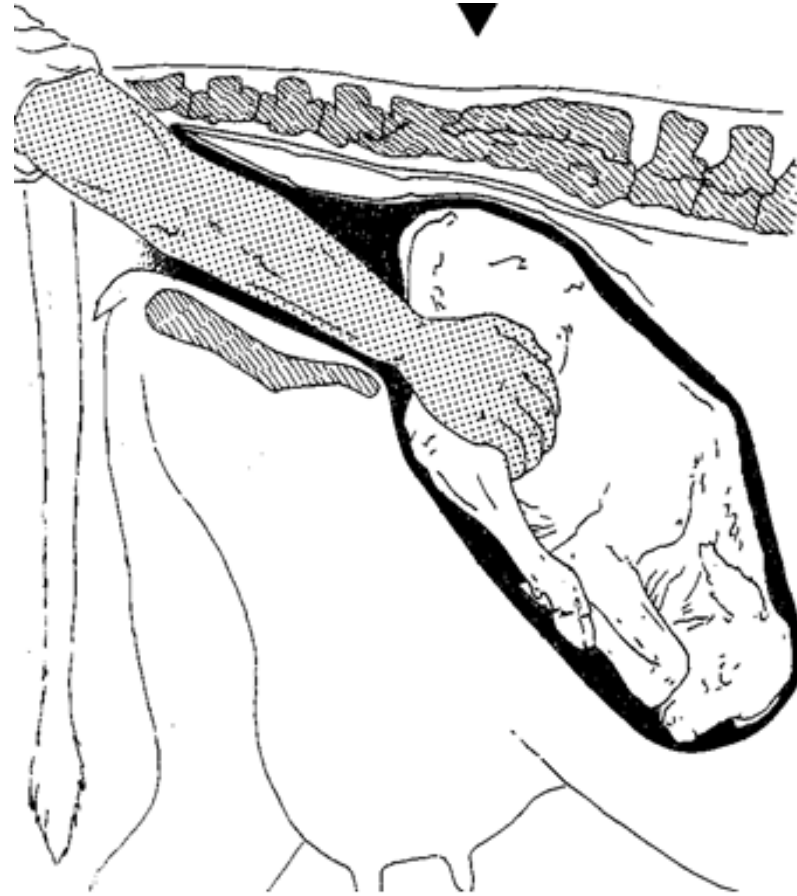
Posterior presentation

1. The only way out.
2. Pull gently.
3. Make sure that the tail is folded between the hind legs and not curled to the side, or else it will damage the vagina wall.

15. Breech position

Breech position

1. Push the calf back



15.1 Breech position Cont'd...

Breech position

1. Is very complicated.
2. Adjustment is not without risks.
3. See hock flexion.



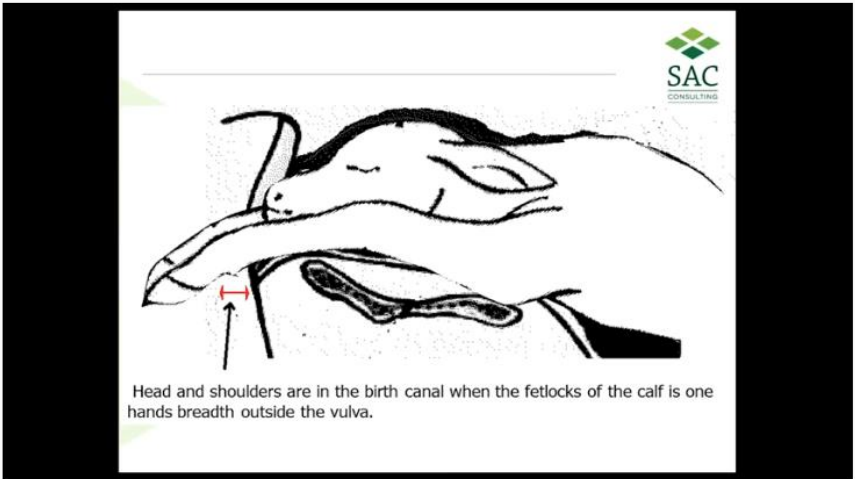
16. Take home message: Summary

REMEMBER

1. Close observation of the calving process is important.
 - See and understand what's going on.
2. Most of the time 'assistance' is not necessary. In fact, rushing the calving process can injure the cow and should be avoided.
3. Cows must be examined if progress has stopped for 30 minutes, or if the calving lasts more than four hours. The only exception to this rule is if the calf is backwards and is losing oxygen due to pressure on the umbilical cord.
4. Situations that require the assistance of a veterinarian include when;
 - You cannot determine the cause of delayed calving.
 - You are able to determine the problem but cannot fix it yourself.
 - You think you can correct the problem but you have been trying for at least 30 minutes without any progress.

Watch video:

<https://www.youtube.com/watch?v=wf4T7N8S2iM>



The screenshot shows a YouTube video player interface. At the top, the YouTube logo and the URL <https://www.youtube.com/watch?v=wf4T7N8S2iM> are visible. The video content is a diagram of a cow's head and shoulders in the birth canal. The diagram is a black and white line drawing. A red double-headed arrow indicates the distance between the fetlocks of the calf and the vulva. Below the diagram, the text reads: "Head and shoulders are in the birth canal when the fetlocks of the calf is one hands breadth outside the vulva." The video title is "Webinar: Successful Calving Course (for vets)", and it has 9,558 views and was uploaded on Dec 16, 2015. The channel name is "AHDB Beef & Lamb".

Webinar: Successful Calving Course (for vets)

9,558 views • Dec 16, 2015

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