

Parturition and Related Problems and Illnesses



Average length of gestation

Species	Length in Days	Avg. in Months*
Cattle	279-292	9
Goats	145-155	5
Sheep	144-151	5
Swine	112-115	3 mo. 3 wks. 3 days
Horse	330-342	11

*Average varies with animals and breeds.

Average length of gestation

Species	Length in Days	Avg. in Months*
Dog	58-70	2
Cat	58-65	2
Rabbit	30-35	1
Elephant	600-660	20-22

*Average varies with animals and breeds.

schistosomus reflexus



Parturition

Giving birth:

called calving in cattle

lambing in sheep

farrowing in swine

kidding in goats

whelping in dogs

Parturition



Parturition



Parturition



Hormonal Changes

- As the fetus approaches full term:
 - Progesterone levels decline.
 - Estrogen levels increase, preparing uterus for delivery.
 - Fetus releases hormone (cortisone) stimulating the beginning of the birth process.
- Parturition or delivery of the newborn occurs normally at a point when the fetus is capable of surviving on its own.

3 stages of parturition

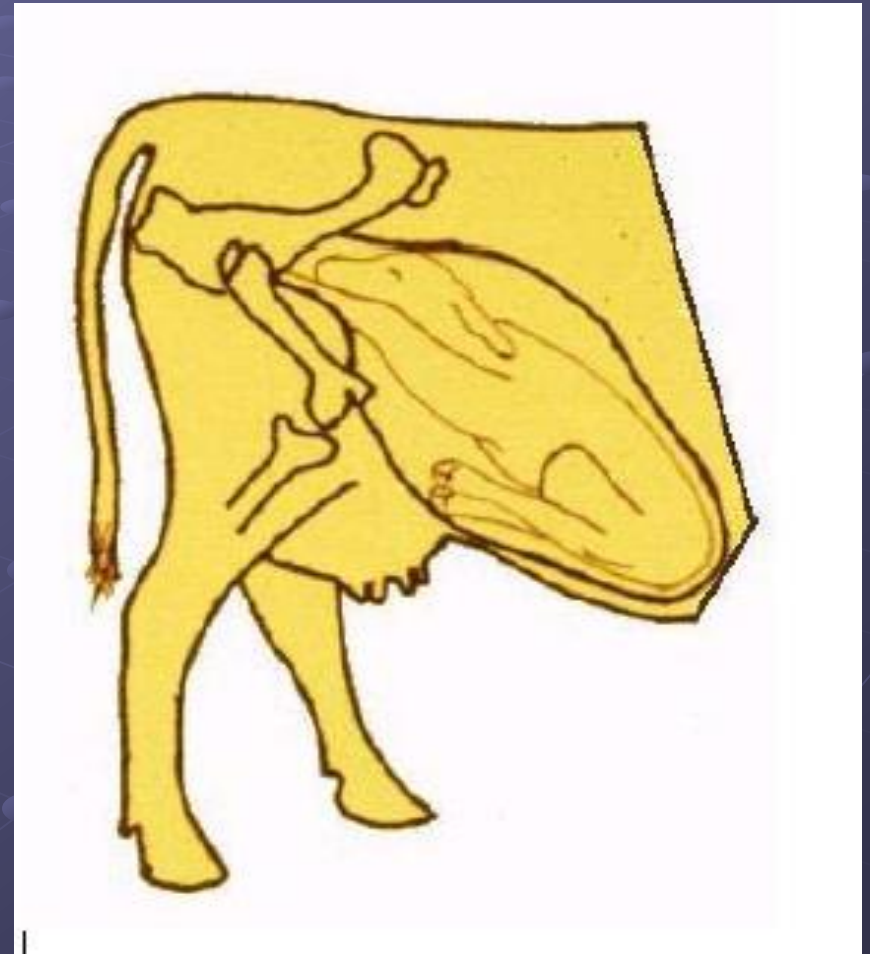
- Preparatory

- Fetal Expulsion

- Expulsion of placenta or afterbirth

Preparatory Stage (2-6 hours)

- Calf rotates to upright position
- Uterine contractions begin
- Water sac expelled



Delivery (1 hour or less)

- Cow usually lying down
- Fetus enters birth canal
- Front feet and head protrude first
- Calf delivery completed



Cleaning (2-8 hours)

- Caruncle-cotyledon (button) attachments relax
- Uterine contractions expel membranes



Dystocia

Calving or birthing difficulty

Dystocia

- Normal delivery should be completed within two to three hours after the water sac appears in heifers, and one to two hours in cows. If prolonged, the calf may be born dead or in a weakened condition.

Steps in calving assistance

After a delay in the delivery, you should:

1. Conduct a pelvic exam

- Vulva and rectum should be scrubbed, hands and arms should be clean and an OB sleeve should be worn

2. Determine position of fetus

Some abnormal positions

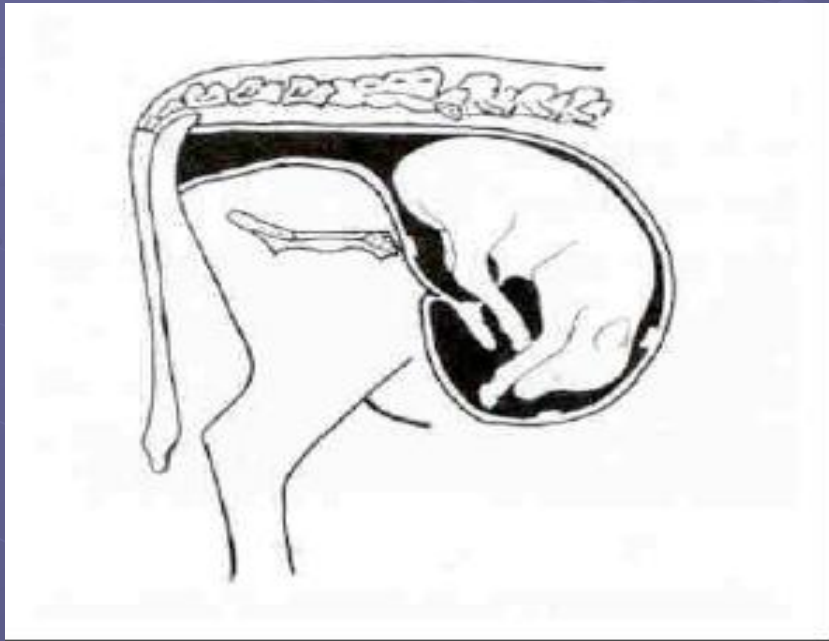


Figure 5. Posterior presentation with rear legs extended under the calf's body (breach presentation). May be corrected by pushing the calf forward and grasping the legs one by one. As each leg is drawn into the birth canal, keep the hock pointed toward the cow's flank and the hoof to the midline.

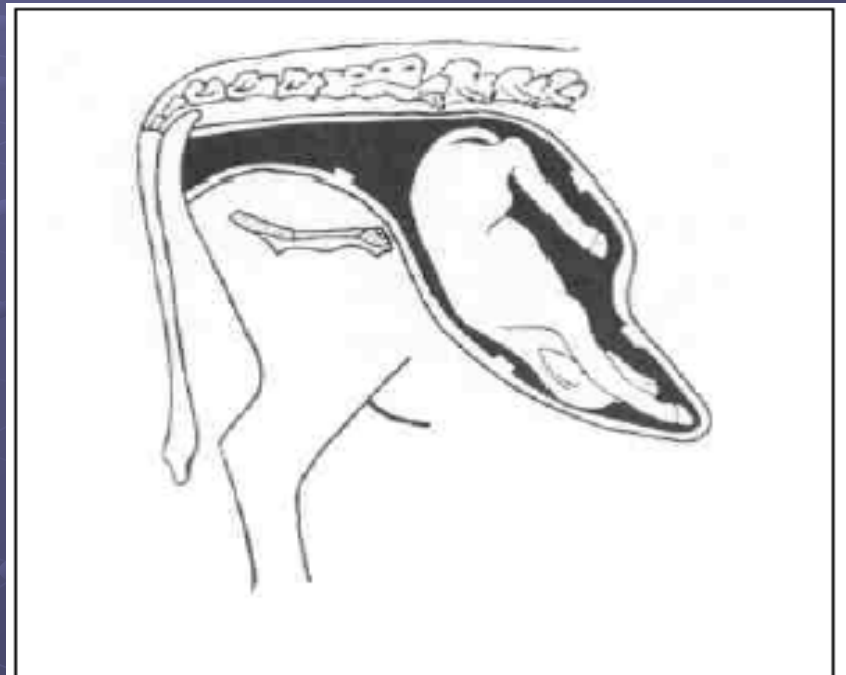


Figure 6. Posterior presentation with fetus in an upside down position. This situation can be caused by twisting of the uterus or rotation of the calf. Delivery must never be attempted in this position and professional assistance is often required.

Some abnormal positions

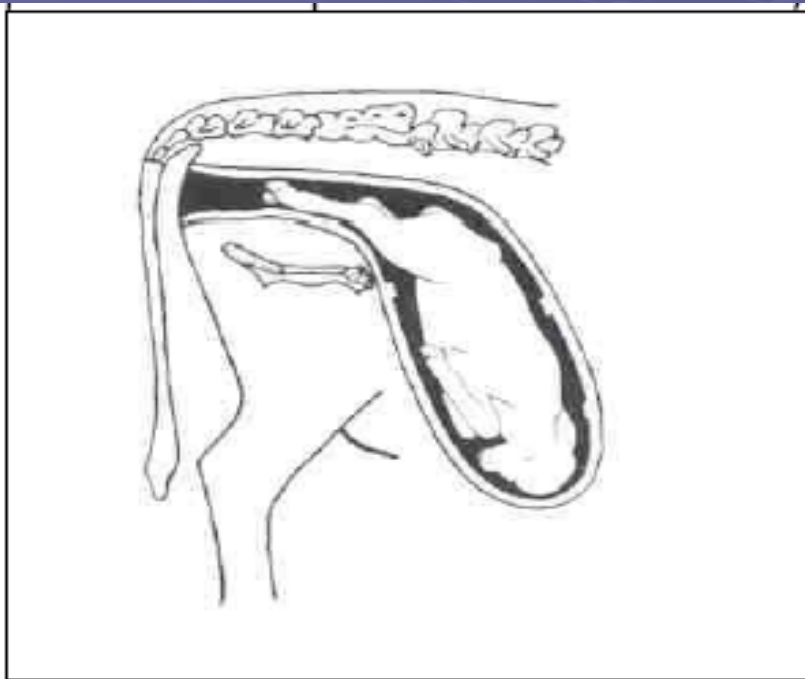


Figure 7. Posterior presentation of the calf. Delivery may often proceed without complications. Assistance may be important if labor is prolonged. Death of the calf can occur due to rupture of the navel cord and subsequent suffocation.

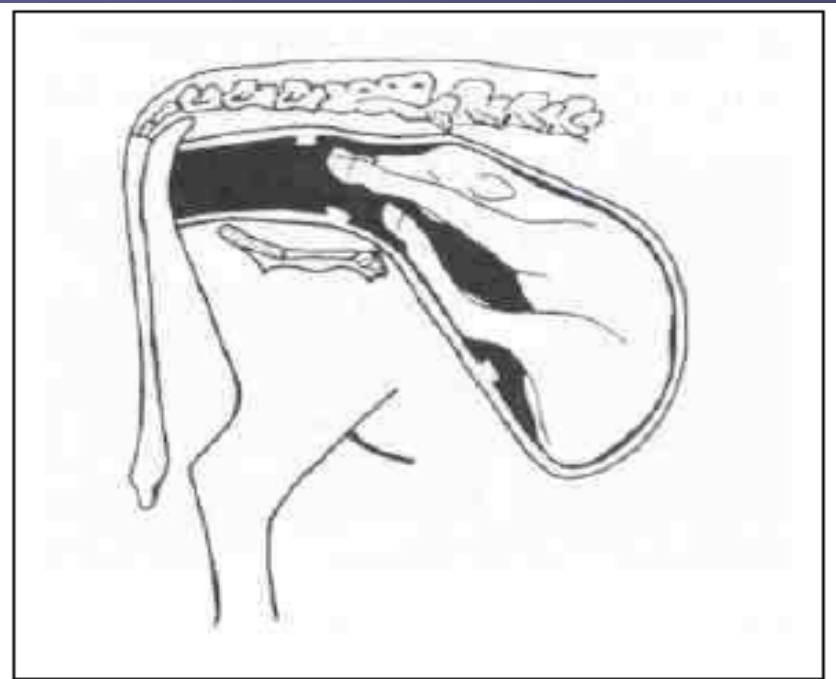


Figure 8. Anterior presentation with the rear legs extended beneath the body (dogsitting posture). A very serious type of malpresentation. If allowed to progress into advanced labor, fetal death may result. Early professional help may be required.

Some abnormal positions

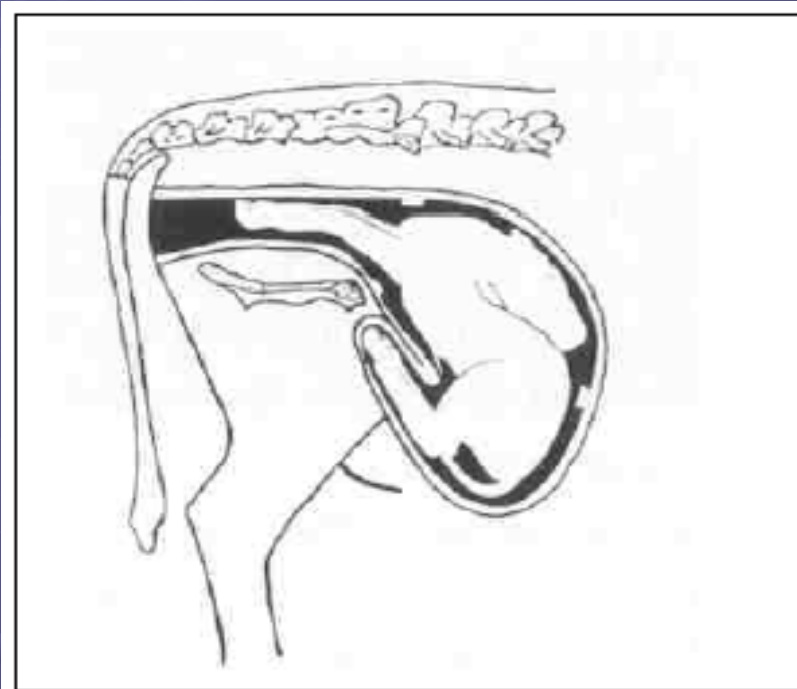


Figure 9. Anterior presentation with the head and neck turned back over the body. Secure the legs with chains. Push the calf back into the body. This often brings the head into normal position.

Steps in calving assistance

3. Examine size of the calf relative to the birth canal.

- If too big can paralyze cow
- If determined early, a successful C-section can be done

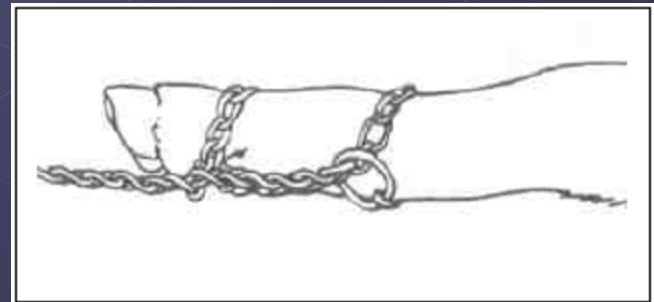
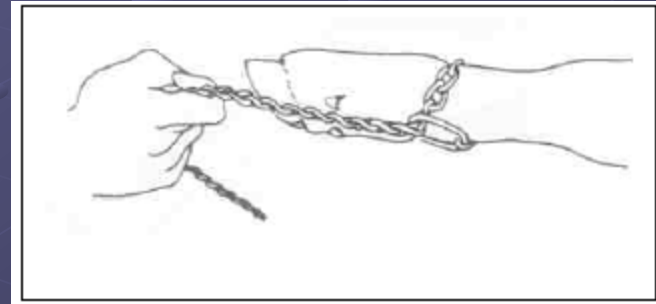
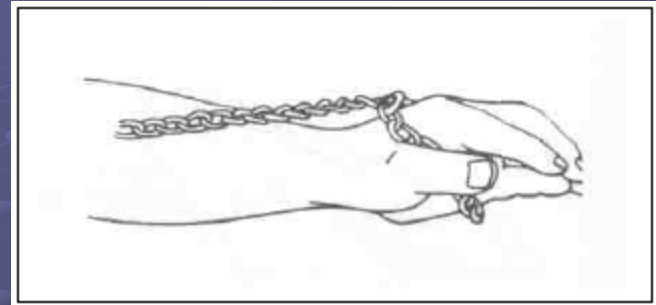
4. Attach obstetrical chains to the front legs

- Loop of each chain around each leg
- Slide chain up on the cannon bone 2-3 inches above the ankle joints and dew claws
- Ensure chain pulls from bottom of the leg (dew claw side)

Proper placement of OB chains



Figure 11. An obstetrical (OB) chain. Make a loop in the OB chain by passing the chain through the oblong ring at the end of the calving chain.



Proper use of OB chains

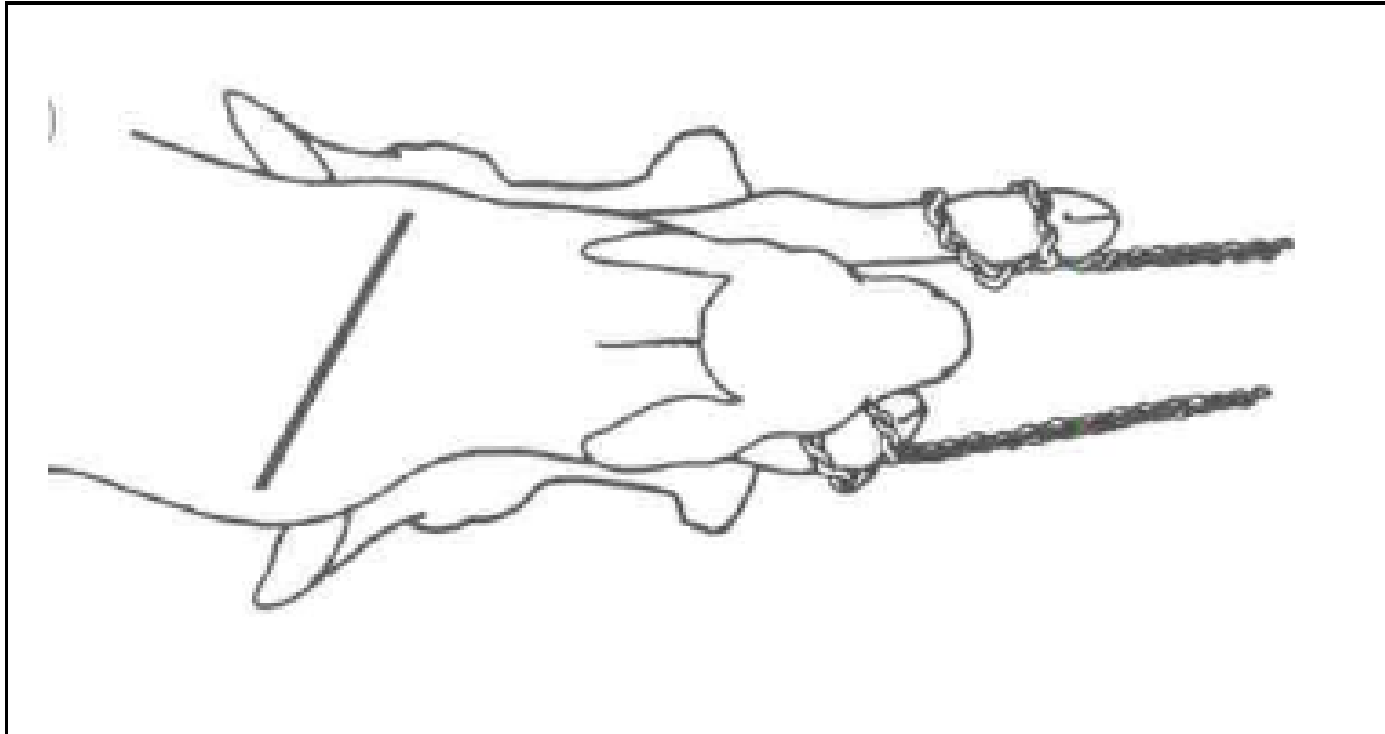


Figure 13. Some calves can be delivered by pulling both legs evenly. However, it is best to pull alternately on one leg and then the other a few inches at a time. When the legs are “walked out” in this manner, the shoulders or hips are allowed to pass through the pelvic girdle one at a time.

Proper use of OB chains

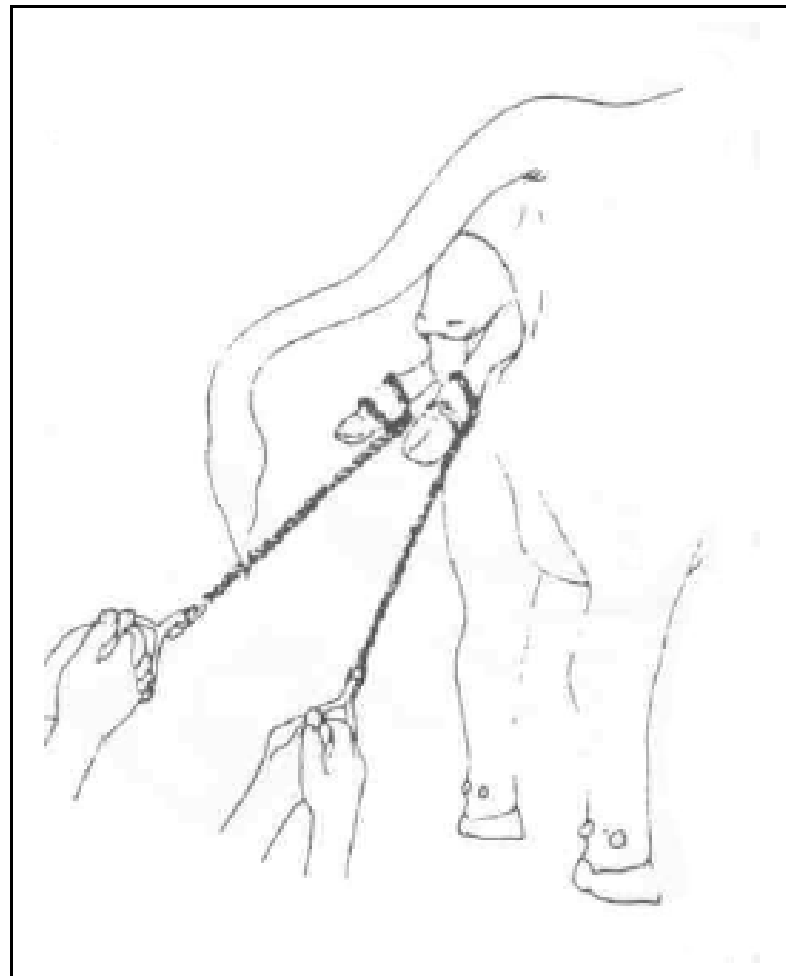
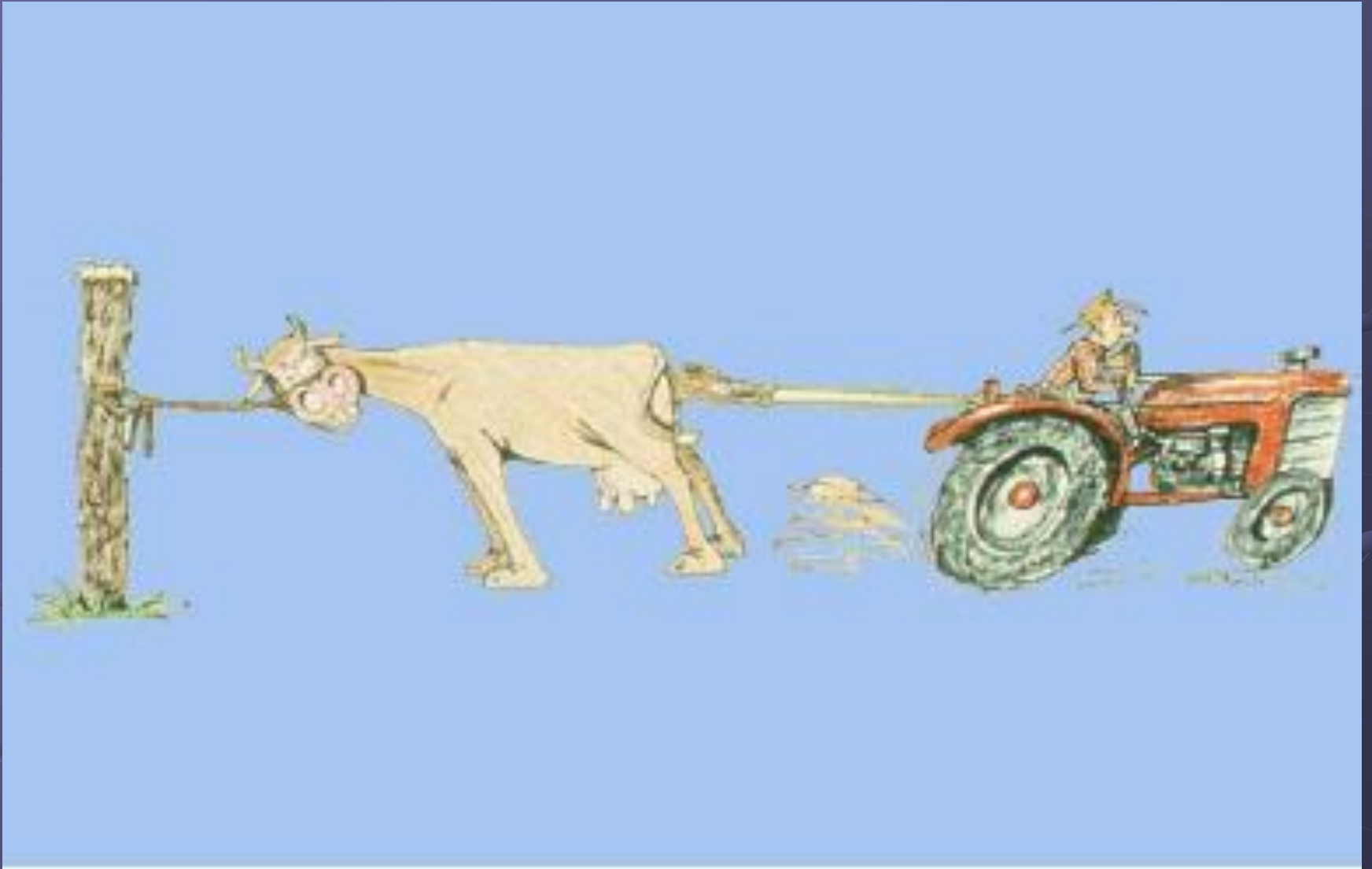
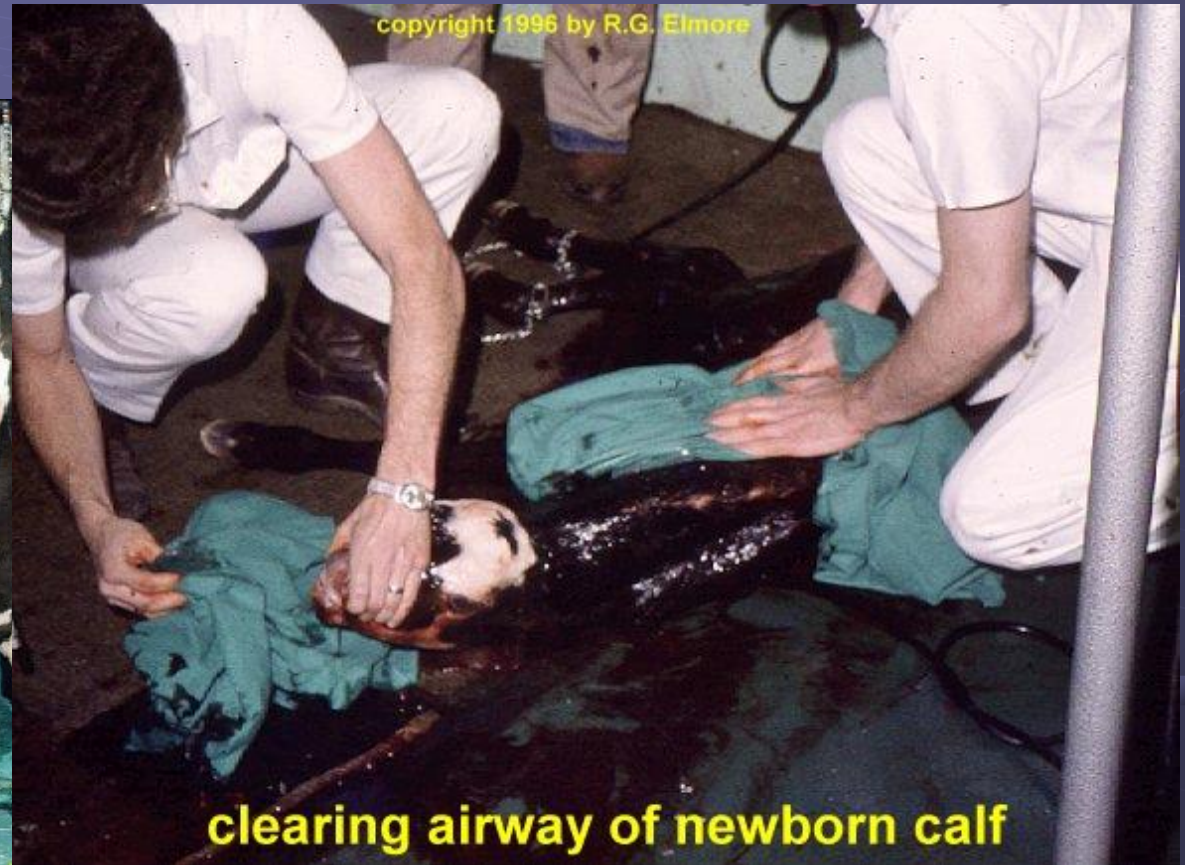


Figure 14. Once the calf's legs are exposed, the calf should be pulled downward (toward the cow's hocks) at a 45-degree angle. One or two individuals using chains with manual strength should be able to pull a calf out. If the birth is extremely difficult, it may be necessary to use a mechanical calf puller. When this situation arises, it is best to seek experienced help.

Improper use of force!



Starting the calf



Starting the calf

- Clear the airways and clean mucus from mouth area
- Stimulate the calf by rubbing vigorously
- If necessary give artificial respiration

Post-delivery Problems

Uterine Prolapse -
Inversion of uterus

- Caused by prolonged labor
- Difficult birth
- Excessive traction
- Subclinical milk fever

Should be treated as
emergency



Post-delivery Problems

Retained placenta

If not treated – poses health threat to cow and will cause problems with rebreeding

Wait 48 hours – give injectable antibiotics along with uterine boluses or uterine infusions – observe closely for signs of infection

