

Prior To Calving

- Walk Pen 35, 36 and 13 every 30 minutes
- Place ½ a bale of new straw into the next boxstall that is due to be used
 - All Boxstalls should be rotated through for even usage
- Bring cow/heifer into clean boxstall when she is in Stage 1 of Labor
 - Put cow card on boxstall to identify animal and fill out as progress is made
 - *Place cows with pink ear tags in designated Johne's stalls only*
- Refer to poster on wall **Maternity Obstetrics Protocol**

After Calving

Attend to the Calf

- Place calf in sternal position with back legs "frog-legged" or pointing forward
- Stimulate breathing by placing (tickling) a clean piece of straw in the nostrils
- Refer to poster on wall **Newborn Calf Protocol**



Remove from the Cow

- The calf should be removed from the cow within one hour after birth. All of the procedures outlines in the Newborn Calf Protocol should be completed before movement. If the calf is able to stand up and suckle from the cow, she will be exposed to a large amount of bacteria and may become seriously ill.

Colostrum

The First Colostrum Feeding – 1 Hour After Birth

- Feed 2 quarts of colostrum **1.070 quality or higher**. If there is a limited supply of 1.070 colostrum available, lower quality colostrum can be fed to deacon calves.
- Use fresh colostrum first (milked within the last 12 hours). Refrigerated colostrum that is less than 7 days old can be used as a second choice. Frozen colostrum that is less than 3 months old can be used as a third choice.
- To bring refrigerated or frozen colostrum up to body temperature, use warm water in a bucket. **DO NOT MICROWAVE** colostrum as it will make it useless to the calf.
- Feed colostrum by nursing from a nipple bottle. Be patient and work with the calf! Only tube feed colostrum as a last resort. If the decision is made to tube feed the calf, increase the amount of colostrum fed to 4 quarts instead of 2 quarts.



The Second Colostrum Feeding – 5 Hours After Birth

- Feed 2 quarts of colostrum **1.050 quality or higher**. If there is a limited supply of 1.050 colostrum available, lower quality colostrum can be fed to deacon calves.
- Use the same feeding guidelines is used with the first feeding of colostrum.

Important Points About Colostrum

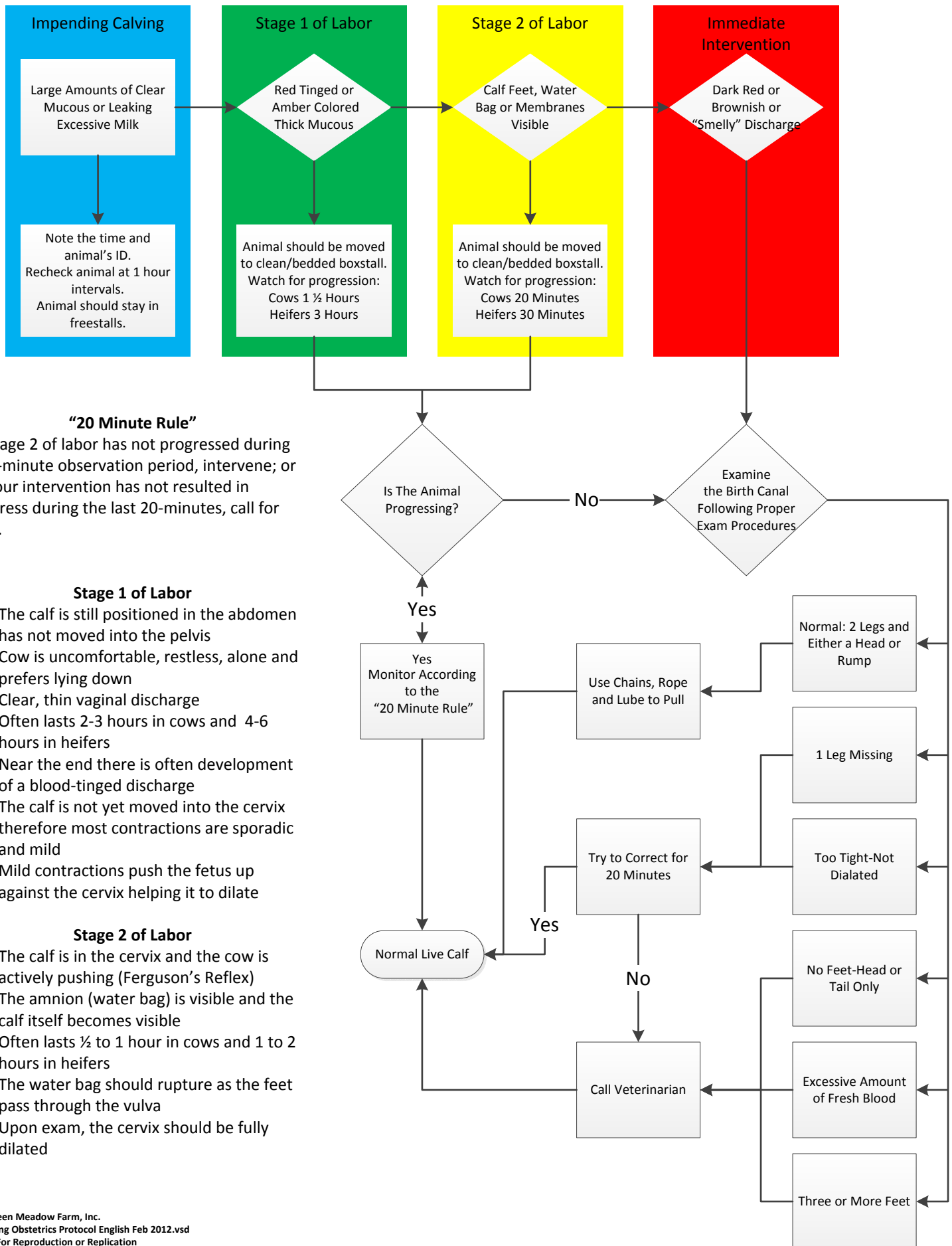
- Milking equipment, 5 gallon pails, nursing bottles, nipples and tube feeders must be kept spotless to prevent the spread of disease.
- Monitor the colostrum supply closely and notify the Herd Manager if colostrum supplies run short.
- Be patient with these calves. The extra time invested now pays back many times over for healthy calves.

After Calving

Attend to the Cow

- **Twins:** Give one bottle of Calcium Borogluconate under the skin
- **Assisted Calvings:**
 - Place icepack (bottle) into vagina for 20-30 minutes. Be sure to clean the vaginal area before putting the icepack in.
 - Check for twins by first cleaning the vaginal area. Refer to poster on the wall Vaginal Exam Procedure.
- **Unassisted Calvings:**
 - Do not perform vaginal exam, bump for 2nd calf
- **Milking Cows and Heifers:**
 - Milking should be done within one hour of freshening
 - All four teats must be dipped in iodine based teat dip
 - Teats should be cleaned with a paper towel
 - Milking unit should be attached to the cow
 - If milk letdown does not occur, you may give ½ cc of Oxytocin in the muscle
 - Milker should be removed when the cow is done milking
 - Teats should be re-dipped in iodine based teat dip
 - Johne's positive cows (pink ear tags) should always be milked last and the milker must be cleaned after using it on a Johne's cow. Milk from Johne's cows must be discarded
- **Saving Colostrum:**
 - Fresh colostrum should be poured into a clean bucket
 - Use a fresh, clean bucket for each animal Do not mix colostrum from different animals
 - Discard colostrum from heifers, Johne's positive cows, mastitis cows or any colostrum that looks bloody or abnormal. If there is not enough good colostrum available, contact Lou or Ike immediately.
 - Immediately test each batch of colostrum for specific gravity
 - Do not save any colostrum that tests below 1.050
 - Estimate the amount of colostrum that might be needed for the next 12 hours
 - Any excess colostrum should be placed in clean bottle for refrigeration or freezing
 - Bottles should be clearly marked with the date and specific gravity
- **Move Cows and Heifers to Pen 34 within 2 Hours of Calving:**
 - Keeping cows in boxstalls for more than two hours leads to contamination of the boxstalls with excessive amounts of bacteria and will lead to increased disease in both the cows and calves
 - If cows are not able to rise or if they look too weak to go to Pen 34, contact a Veterinarian or Herdsman immediately





"20 Minute Rule"

-If Stage 2 of labor has not progressed during a 20-minute observation period, intervene; or -If your intervention has not resulted in progress during the last 20-minutes, call for help.

Stage 1 of Labor

- The calf is still positioned in the abdomen has not moved into the pelvis
- Cow is uncomfortable, restless, alone and prefers lying down
- Clear, thin vaginal discharge
- Often lasts 2-3 hours in cows and 4-6 hours in heifers
- Near the end there is often development of a blood-tinged discharge
- The calf is not yet moved into the cervix therefore most contractions are sporadic and mild
- Mild contractions push the fetus up against the cervix helping it to dilate

Stage 2 of Labor

- The calf is in the cervix and the cow is actively pushing (Ferguson's Reflex)
- The amnion (water bag) is visible and the calf itself becomes visible
- Often lasts 1/2 to 1 hour in cows and 1 to 2 hours in heifers
- The water bag should rupture as the feet pass through the vulva
- Upon exam, the cervix should be fully dilated

Eartag Calf

- **Heifers** - Four digit button tag with ID Chip
- **Keeper Bulls** - Five digit button tag with ID Chip
- **Deacon Bulls** - Regular orange allflex eartag and button tag with ID Chip
- **Maternity is the only place where a calf gets assigned its permanent ID number. It is critical that care is taken to get the correct number in the calf's ear and that the numbers are properly recorded**
- All tags should be placed in the calf's left ear
- The tag needs to be placed close to the calf's head - not out near the tip of the ear



Bo-Se

- 5 cc Bo-Se intramuscular (IM) in the neck in front of the shoulder
- Calves are born deficient in selenium, this injection helps give the calf selenium
- **Always use a new needle**



Calf Guard

- Mix the contents of the sterile diluent provided with the vial of freeze dried vaccine.
- Remove the needle
- Squirt the contents into the back of the calf's throat
- Calf-Guard block's the ability to absorb Rota and Corona Virus into their system
- Rota and Corona Virus are major causes of calf scours



Inforce-3

- Mix the contents of the sterile diluent provided with the vial of freeze dried vaccine.
- Remove the needle
- Squirt 1cc into each nostril
- Inforce-3 helps give the calf protection against IBR, PI3 and BRSV viruses

Dip Navel

- Use 7% Tincture Iodine
- Completely dip navel and all around the navel
- Should be done as soon as calf is born and repeated again at second colostrum feeding (4 hours)
- Dipping the navel prevents umbilical infection. The navel of a newborn calf has veins and arteries that are directly open. Dipping helps prevent bacteria from infecting these blood vessels.



Milking Cows and Heifers

- Both cows and heifers should be milked soon after freshening
- All four teats should be dipped in iodine based teat dip
- Teats should be cleaned with paper towel
- Milking unit should be attached to cow
- If milk letdown does not occur - 1/2 cc of Oxytocin may be given
- Milker should be removed when cow is done milking
- Teats should be re dipped with iodine based teat dip after milking
- Johnes positive cows (pink eartags and pink stalls) should always be milked after all the rest of the cows and the milker cleaned after using on these cows

Saving Colostrum

- Fresh colostrum should be poured into a cleaned 5 gallon bucket
- Use a fresh bucket for every cow and heifer. Do not mix colostrum from different animals
- Colostrum from heifers or mastitic or Johnes positive cows should be discarded down the drain
- Do not save bloody or abnormal looking colostrum
- Each batch of saved colostrum should be tested for specific gravity. Do not save any colostrum that tests less than 1.050
- Estimate the amount of colostrum that might be needed for the next 12 hours. Any excess colostrum should be bottled in clean individual bottles for freezing
- Bottle colostrum should be clearly marked with the date and specific gravity

First Colostrum Feeding

- The first feeding should be 2 qts. of colostrum of **1.070 quality or higher**. If limited supply of 1.070 or better colostrum is available, lower quality colostrum can be given to deacon calves
- Fresh (within the last 12 hours) should be used as first choice; then refrigerated colostrum less than 30 days old should be fed as second choice; then frozen colostrum less than 3 months old should be fed as a last resort.
- To thaw frozen or refrigerated colostrum, use hot water in a bucket. Do not use the microwave!
- The first feeding of colostrum should occur 1 hour after the calf is born
- It is very important that colostrum be fed by nursing and not tube feeding. Be patient and work with the calf. The difference between nursing and tubing a calf with colostrum is important!

Important Points About Hygiene

- *For the future health and safety of the calf it must be kept clean and dry*
- *Cows must be in clean and dry boxstalls!*
- *Always keep fresh dry straw in boxstall before putting cow in stall*
- *If stall is wet or dirty, add more straw*
- *Calves must be moved away from cow to the calf boxstall as soon as possible*
- *Do not allow the calf to stand and nurse the cow - move them into the calf boxstall*
- *Cows with Pink eartags(Johnes) must be placed in the end stalls with pink gates*

Important Points About Colostrum

- Milking equipment, 5 gallon pails, nursing bottles, nipples and tube feeders should be kept spotlessly clean (as clean as your mother would make them!)
- Johnes and mastitis cows should always be milked last and their colostrum should be discarded
- Always try to nurse before tubing. Colostrum gives calves their immunity and nursing works much better than tubing
- Monitor the colostrum supply closely; notify the herd manager if colostrum supplies run short
- Be patient; work with these calves. Time invested now pays back many times over for healthy calves

Second Colostrum Feeding

- The second feeding should be 2 qts. of colostrum of **1.050 quality or higher**. If limited supply of 1.050 or better colostrum is available, lower quality colostrum can be given to deacon calves
- Fresh (within the last 12 hours) should be used as first choice; then refrigerated colostrum less than 30 days old should be fed as second choice; then frozen colostrum less than 3 months old should be fed as a last resort.
- To thaw frozen or refrigerated colostrum, use hot water in a bucket. Do not use the microwave!
- The second feeding of colostrum should occur 5 hours after the calf is born
- It is very important that colostrum be fed by nursing and not tube feeding. Be patient and work with the calf. The difference between nursing and tubing a calf with colostrum is important!



- Properly lock cow or heifer in headlock, Using baling string, tie tail of the cow to her own neck or shoulder.
- Do not tie to gate so if the cow falls down, she does not break her tail.



- Using a gloved hand, clean water and
- Betadine Scrub, thoroughly wash the cow's vulva and perivulvar area removing all signs of manure, vaginal discharge and dirt.
- Repeat the scrub at least three times before examining the cow



- Rinse vulva with clean water



- Change to a new clean sleeve
- Apply liberal amounts of OB Lube to both your hand and arm



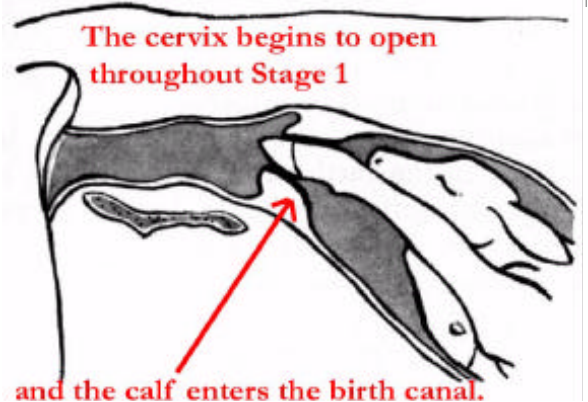
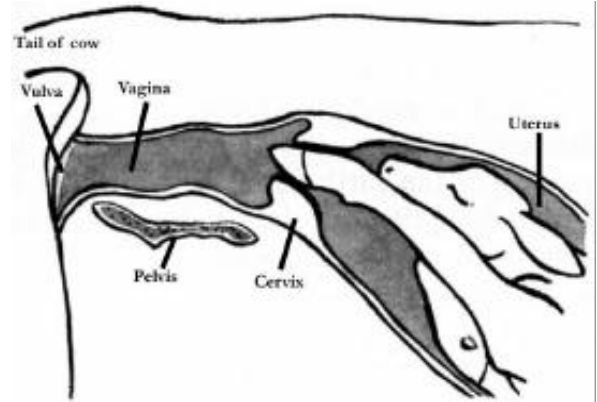
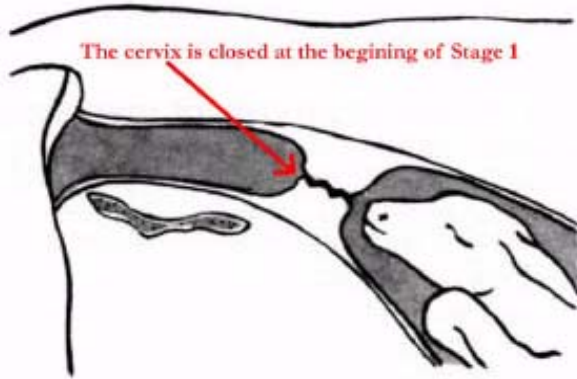
- Gently slide your gloved, lubed hand into the vagina and examine the position of the calf.



- If the cow passes manure and soils the vaginal area, you must rescrub the vaginal area.
- Lube and Soap should be kept in small bottles to minimize contamination

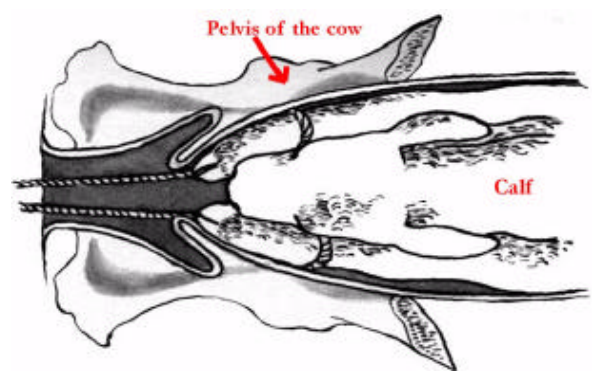
Stage 1 of Calving

This stage, lasting 2-6 hours (can be longer in eifers), begins with initial labor and ends when the cervix is fully dilated and the calf has entered the birth canal. The end of Stage 1 is marked by the observation of the water sac. The cow may show signs of discomfort by kicking at her belly, and becoming restless due to contractions. She may separate herself from the rest of the cows and urinate frequently. These signs are especially evident in heifers. These animals will show mostly a clear vaginal discharge that may become tinged with blood near the end of Stage 1.



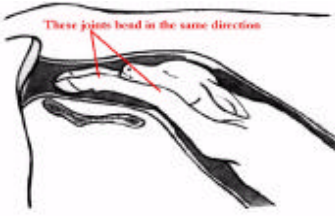
Stage 2 of Calving

In this stage, that lasts 1-2 hours for cows and 2-4 hours for heifers, the cervix is fully dilated, the cow may lie down, contractions will increase and abdominal pushing is obvious. This stage begins when fetal parts engage the cervix and ends with the delivery of the fetus.

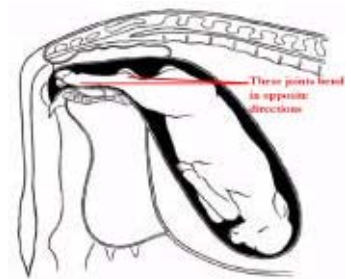


Presentation

Presentation refers to whether the calf is coming forward (anterior) with both front legs and head extended into the birth canal, backwards (posterior) with both hind legs extended into the birth canal (soles of the calf's hooves up and toes pointed down) or transverse with either all four legs in the birth canal or the back of the calf entering the birth canal. Both forward and backward presentation are considered normal with the forward being the most common. A backward presented calf is a high risk calving because the umbilical cord is pinched off before the calf's head is delivered. A transverse presentation is the most difficult to correct and often results in a caesarean section.



Anterior Presentation, Dorsal-Sacral Position, Normal Posture



Posterior Presentation, Dorsal-Sacral Position, Normal Posture

Position

Position refers to how the calf is positioned in relation to the cow. It is the surface of the maternal birth canal to which the fetal vertebral column (calf's back) is presented. If the calf's back is up towards the considered right-side up or dorsal-sacral position. This is the only position that is considered normal. If the calf's back is down on the upside down or ventral-sacral position.



Anterior Presentation, Dorsal-Sacral Position, Normal Posture

Posture

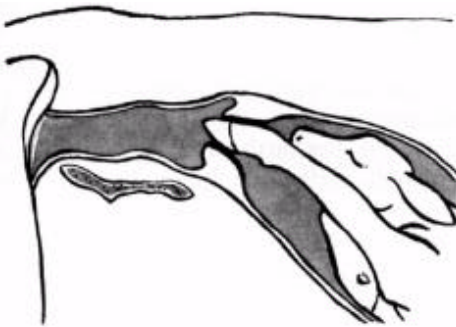
Posture refers to where the calf's limbs and head are in relationship to the rest of its body. The limbs and head should be extended into the birth canal. If the head or one or both legs is retained, the calf is considered malpositioned and needs to be adjusted.



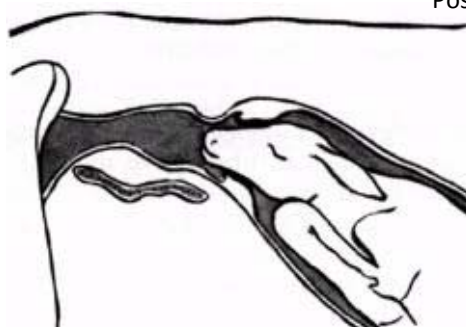
Anterior Presentation, Dorsal-Sacral Position, Head Back Posture



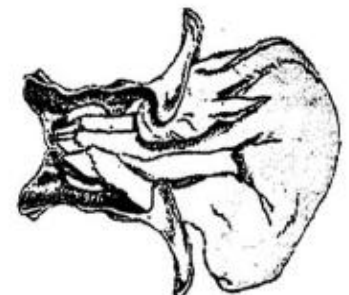
Posterior Presentation, Dorsal-Sacral Position, Forward Posture-Breech



Anterior Presentation, Dorsal-Sacral Position, One Leg Back Posture



Anterior Presentation, Dorsal-Sacral Position, Two Legs Back Posture



Transverse Presentation, Transverse Posture