Strategies for When Things go Wrong

Racheal Slattery, University of Maryland Dept. of Animal and Avian Sciences

Email: rslatt@umd.edu, Office: 301-405-1392

Its not “IF”, but “WHEN” problems occur.

- Pre-partum Issues
- Dystocia
  - Why do difficulties happen?
  - When to intervene
    - Abnormal Presentations
  - Using your calving tools
- Post-natal Issues
- Post-partum Issues

Pre-partum Issue – Vaginal Prolapse

- What is it: the tissues around the birth canal in late pregnancy have become relaxed and there is increased pressure in the abdominal cavity that pushed on the vagina when the cow is lying down. The condition will worsen as the pressure increases.
  - Issues: Impaired blood circulation can lead to impaired tissue, swollen tissue is vulnerable to injury. If the bladder is part of the prolapse, the cow won't be able to urinate until the prolapse is replaced. The bulging tissue can also impede delivery of the calf, resulting on death of the calf and further injury to the cow
    - The longer the tissue is left outside, the more swelling will occurs the harder it will be to replace the prolapse.

- Causes: Structural weakness of the repro tract (most common in Herefords, Simmentals and Charolais), Inherited problem from Dam or Sire, too much fat, older cows
- Treatment: Contact your vet to replace the prolapse – the vulva will need to be stitched to prevent recurring prolapse.
- Prevention: Cull any cows that prolapse as well as any daughters of the Dam (or sire), watch the body condition of your cows, particularly leading up to calving

Dystocia – Potential Causes?

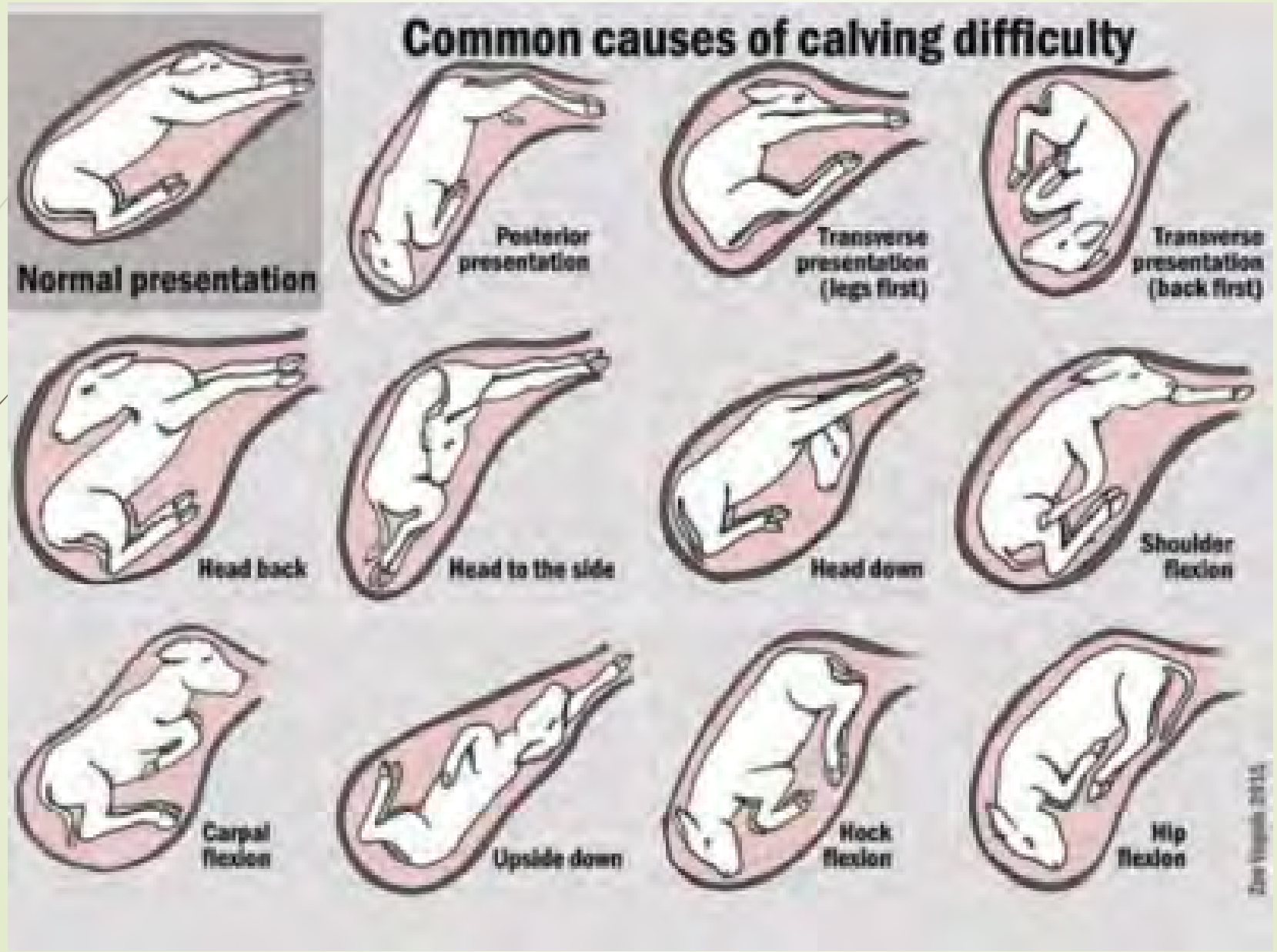
- Dystocia: Delayed or Difficult Birth.
  - Up to 10% of calves born in Beef herd in the US die at or soon after birth – 50% are due to dystocia
  - 80% of calves lost at birth are anatomically normal. Most die because of injuries or suffocation from difficult or delayed calving.
  - Factors Contributing to Calving Problems:
    - Calf Effects
      - Heavy birth weights (Influenced by breed, sex, age of dam, nutrition of cow)
      - Shape of calf
    - Cow Effects
      - Age (first calf heifers require more assistance because they're smaller)
      - Pelvic Area (Increases as the animal matures – majority of the calving issues with 2-3 year olds is due to small pelvic size
    - Fetal Position at Birth
      - 5% of calves present in an abnormal position

Calving: When to Intervene (help)

Don't intervene TOO Soon – Make sure the cervix is dilated before attempting to pull a calf – The cervix is programmed to relax and dilate fully as the top of the calf's head presses against it with each contraction – hard steady pulling can actually delay the process

- Cow/Heifer is off by herself and restless for more than 6-8 hours with no visible signs of labor
  - This can indicate an issue with dilation, issue with calf size, abnormal presentation
- The cow/heifer has been straining hard for more than one hour and either no calf is showing or the calf's feet are showing when she strains but go back inside when she rests
  - This can indicate an issue with calf size, abnormal presentation, fatigue of the cow/heifer
- Yellow-brown fluid (meconium) is present in the amniotic sac or in the vaginal discharge.
  - This can indicate that the calf is stressed and requires immediate intervention
- The feet of the calf are upside down (bottoms of the feet are up instead of down) or only one foot is showing
  - Indicates an abnormal presentation and requires immediate intervention to get the calf out quickly before it has the chance to suffocate (umbilical cord will get pinched in the mother's pelvis and cut of oxygen to the calf)
- The calf's birthing progress has halted altogether
  - This can indicate a issue with calf size, fatigue on the part of the mother

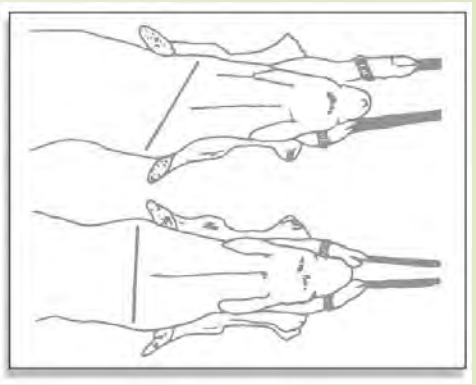
Abnormal Presentations



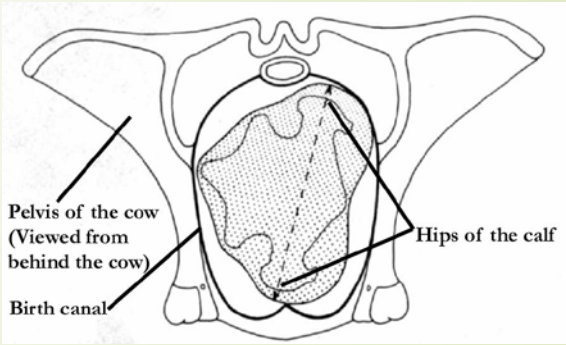
Assisting with Calving – Pelvic Exam

1. Make sure you, ,whomever is helping you and all your equipment is clean – introduction of bacteria on equipment can cause complication down the road
    1. Equipment to have ready: bucket clean water and one with water and disinfectant, ob lube, paper towels, calving chains and handles or straps, plastic sleeves and disposable gloves (Have chains and handles or straps in the disinfectant water)
2. Restrain the cow in a head catch or chute
3. Clean and dry the anus, vulva and tail with soapy water and paper towels
4. Put on plastic sleeves or disposable gloves. Apply ob lube to sleeves/gloves – this will help you work in the cow while you complete a pelvic exam to determine dilation and fetal positioning
    1. Pelvic Exam:
        1. Determine cervical dilation (is there enough space for the calf to get out) – do not try and pull before she's dilated
        2. What is the position of the calf (normal or abnormal)
        3. What is the size of the calf (large calf, small pelvis)
        4. Is there enough lubrication in the birth canal (DO NOT USE SOAP, it will cause inflammation, use only lube or Vaseline)?
        5. This is where you may need to call your vet

Assisting with Calving – Pulling the Calf



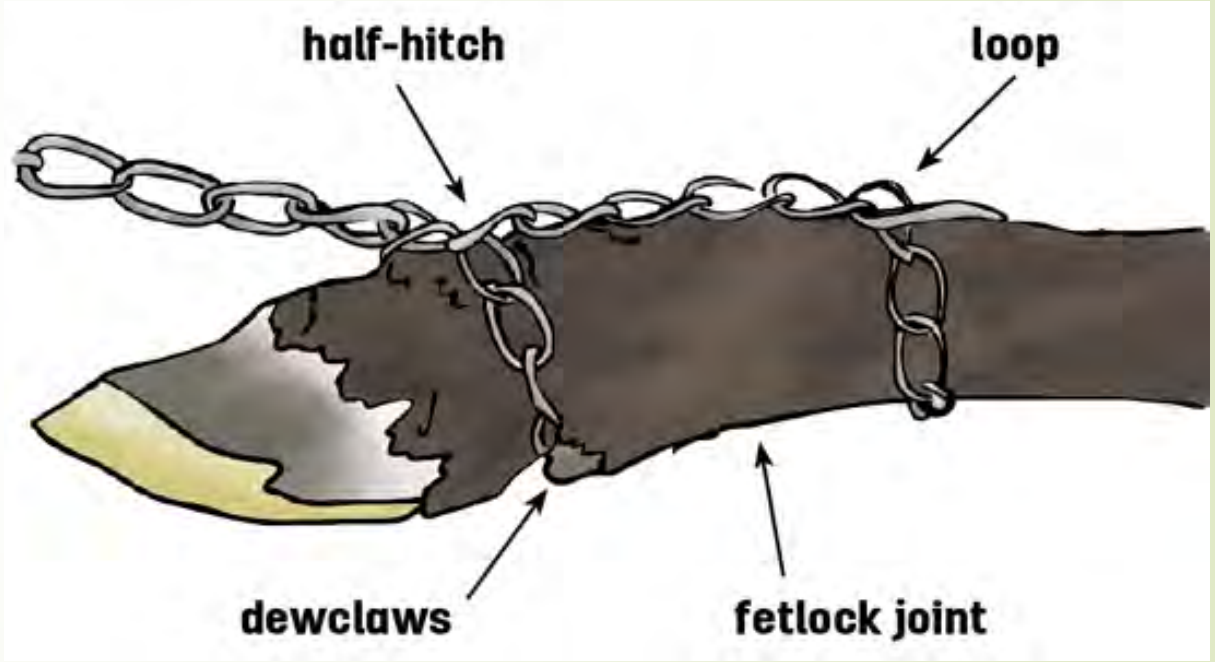
1. Attach the ob chains or calf strap – make sure to alternatively pull one at a time to "walk out" the shoulders through the pelvis opening one
    1. Shoulder lock – This can happen when pulling both legs at the same time both shoulders try to go through the pelvis opening at the same time and become "locked"
2. The greatest chance for uterine or cervical cuts or tears is when the calf's head and shoulders travel the birth canal – pressure helps dilate the birth canal, apply pressure when pulling slowly – maintain continue pressure, but try to only pull when she pushes
3. When the head and shoulders are out, rotate the calf a quarter turn to help get their hips through the pelvis – if this didn't help further delivery, pull the calf at a downward 45-degree angle (nearly parallel with the rear legs of the cow)
    1. Hip Lock – When the hips of the calf get stuck in the pelvis of the cow. Push the calf back into the cow a short distance (this will not be easy) and rotate the calf a quarter turn. Apply pressure with your chains or straps towards the cow's flank or side



- **Maximum pressure a cow can handle is 400lbs** (two grown men can apply 400lbs of pressure when pulling – a calf jack can apply 1200lbs and a come along 2000lbs. DO NOT USE A CALF JACK UNLESS YOU HAVE BEEN TRAINED BY YOUR VET

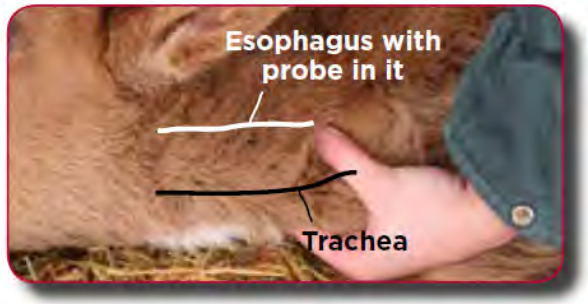
How to: Ob Chains

- Put one end of the Ob chain through the other to form a loop
- Slide the loop around the leg, past the hoof, above the fetlock joint
- Gently cinch down on the chain to tighten it around the leg
  - Pulling at this point with just one loop can result in a broken leg or fetlock joint
- Lay one hand flat across the chain that's extended out of the cow – make a simple fold of the chain toward the leg – creating a second loop or half-hitch.
- Slide half-hitch loop on to the calf's leg below fetlock joint and above the hoof
- Cinch the second loop down so it is tighten around the leg
  - Two loops allow the pressure to be spaced across a larger area, including on the chain its self, resulting in less damage to the legs of the calf



How to: Stomach Tube Feeder

1. Fill the calf feeder bag or bottle with fluid (colostrum, milk, electrolytes, etc.).
2. If using a calf feeder bottle, attach the probe to the bottle. (If using a calf feeder bag, the probe or tube will already be attached.)
3. Make sure the tube is clamped off directly underneath the bag or bottle so there is no liquid in the probe.
4. Restrain the calf by backing it into a corner and place its head between your legs. You should be facing the same direction as the calf.
5. Moisten the tip of the probe with the fluid so it will slide easier.
6. Insert finger into the corner of the calf's mouth to open it gently.
7. Gently insert the tip of the probe into the calf's mouth and over the tongue.
8. Continue to slowly slide the probe to the far left of the calf's mouth. Keep the bottle or bag below the calf's head to ensure that no fluid comes out.
9. The calf will likely struggle a little while you are inserting the probe. If the calf coughs or struggles fiercely, then pull out the probe and try again.
10. Feel for the trachea or wind pipe. It will be a slightly firm tube on the bottom of the calf's neck. *This is where you* ***DO NOT WANT*** *the tube!* The calf's esophagus will be directly above the trachea and towards the calf's left side.



11. Feel for the probe moving in the calf's neck. If you have the probe correctly placed in the esophagus, then you will feel two "tubes"; one is the trachea, the other is the probe in the esophagus. Move the probe in and out to make sure you can feel it moving outside of the trachea.

If you only feel one tube or you can't feel the probe moving back and forth, you are in the trachea. You MUST slowly pull the probe out and try again! If you give fluids in the trachea, the fluids will go directly into the lungs and kill the calf.

12. Once you are sure you have the probe in the calf's esophagus, elevate the calf's head and the bag or bottle.
13. Un-clamp the tube and allow the liquid to drain in. **DO NOT** squeeze the bag or bottle!
14. Make sure the calf is still breathing while you are giving the fluids.
15. Once the bag or bottle is empty, re-clamp the tube.
16. Slowly pull the tube and probe out.

Post-natal Issues: Dehydration

- **How to Check Levels of Dehydration**
  - Mildly dehydrated (less than 1% body weight in fluid loss) – warm feet, when pinch the skin on the neck is quickly springs back into place
  - 2-5% dehydrated – take 3-5 seconds for skin to sink back into place, dry gums (instead of moist)
  - 8% dehydrated – takes 5-8 seconds for the skin fold to return. Legs and feet will be cold and eyes will seem sunken
  - 9-12% dehydrated – takes more than 8 seconds for skin pinch to sink back, eyes will be quite sunken
  - More than 12% dehydrated – takes longer than 10 seconds for skin to go back, eyes will be sunken, gums will be white. Calf will be in shock and near death

Post-natal Issues: Getting a Newborn Calf to Breathe

Stimulating Breathing

- Once the calf is delivered, clear any mucus from the calf's mouth and throat with you hand.
- Stimulate breathing by either rubbing it briskly or tickling the inside of the nostril with straw.
- If possible, hold the calf up with it's head hanging down to help the mouth and nasal cavity drain

Artificial Respiration

- Place a short section of garden hose into one nostril
- Hold mouth and nostrils shut so air enters and leaves through the hose
- Alternatively blow into the hose and allow expiration of air
- Repeat at 5 to 7 second intervals until the calf begins to breathe
- Another method: alternative compressions on the rib cage

Post-partum Issues:

Uterine Prolapse

- Cause: partial vacuum is formed in the uterus which can be caused by pulling the calf too quickly
- Effect: If not treated promptly and correctly the cow can die.
- Treatment: Contact your vet for treatment and medication.
- Prevention: Encourage standing soon after delivery to reduce the chances of it occurring
  - Cull cows or heifers who prolapse as they have an increased probability of repeat occurrence

Retained Placenta

- Cause: Failure to detach from the uterine walls – common with difficult births, multiple births and short gestation (also can indicate a disease problem)
- Effect: Serious health threat to the cow with uterine infections, complications with rebreeding.
- Treatment: If no sign of abnormal discharge, good appetite, and good milk production (calf is thriving) – No treatment, just wait it out. If antibiotic boluses are required, make sure equipment is thoroughly cleaned so as not introduce more bacteria – boluses have been shown to reduce fertility.