Five Mistakes To Avoid When Pulling Calves

By Rhonda Franck

Learn how to protect cows and calves during delivery.

If promised a $100 bill for completing a task, you'd make sure the job was done right. Well, that's the minimum value of a calf born alive.

Make sure the delivery goes smoothly.

Limit problems in the maternity ward by giving your employees — and yourself — a quick refresher course. Here are five common mistakes to avoid when assisting deliveries:

Mistake #1 Being in a hurry.

Clean yourself and the cow, check the position of the calf and make sure your assistance is needed. "In a normal forward delivery, the calf will survive for eight hours in the birth canal," says Bob Youngquist, professor of veterinary medicine and surgery at the University of Missouri. Eight hours is plenty of time to assess the situation.

Follow this procedure for every delivery:

- Scrub your hands and arms with soap and water. However, do not use a soap product to lubricate the reproductive tract. Soaps dry the tract, so use methyl cellulose lubricants, such as petroleum jelly.
- Wash manure off the vulva, pin bones and thighs.
- Check the position of the calf. Determine if the legs in the birth canal are front or hind legs. To do that, check which direction the soles, or bottom of the feet, face. In a forward delivery, when front feet and head enter the birth canal first, the soles point toward the ground. In a backward delivery — one where the hind legs are presented first — the soles face up toward the sky.

Also check the joints. In a forward delivery, all joints in the front legs will bend in the same direction, says Mel Fahning, veterinarian and professor of veterinary medicine at the University of Minnesota. This is not the case in a backward delivery.

- Check the legs in the birth canal, ensuring that they belong to the same calf. It is possible to have a front leg of two different calves entering the vagina at the same time, Youngquist says. To make sure one calf is in the birth canal, trace your hand up one leg until you reach the brisket, then follow down the other side and locate the other front leg.
- Call for assistance if needed. If after completing these basic checks, you are still unsure of the position of the calf, call a veterinarian for assistance.
- Avoid pulling too soon. Do not apply pressure until the calf's muzzle is resting at the knee joint of the front leg. Pulling the legs of the calf before the head is in position causes the calf's head to rise above the pelvic bone — instead of entering the pelvic inlet opening. Also, if the head is not resting on the knee, the vagina is probably not dilated, or stretched, enough to allow the calf to pass.

Figure 2

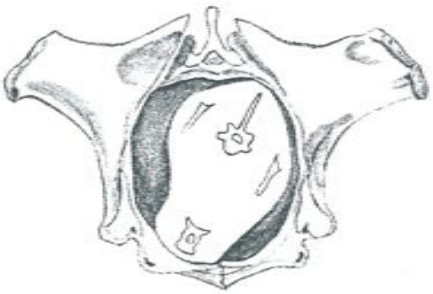

Figure 1

Mistake #2 Pulling both front legs at the same time.

In a forward delivery, pulling with equal pressure on both front legs can cause a "lock" or wedging of the shoulder in the pelvic opening. In some cases, the diameter of both shoulders equals or

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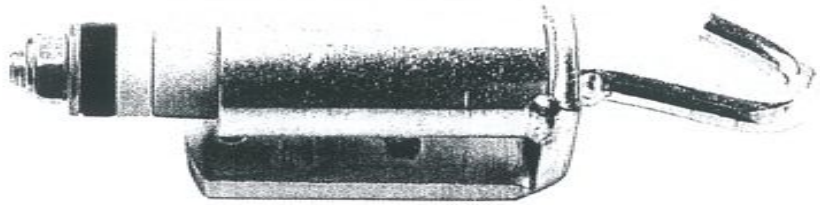
Figure 3
This calving gauge sells for $30. It is one of several types available.



exceeds the diameter of the pelvic opening. No amount of force will pull the locked shoulders through the pelvic inlet, and continued pressure will only break the calf's front legs.

Figure 1 on page 56 shows how to avoid this mistake. Extend one front leg straight out, pulling one shoulder ahead of the other. That way, the shoulders are shifted to enter the widest portion of the pelvic opening (see figure 2 on page 56).

Mistake #3 **Applying too much force.** Pulling with too much force can tear and damage the cow's reproductive tract. Never use more force than can be applied by two people.

Jack Rudnay, president of Stone Manufacturing and Supply Company, a Kansas City-based company that manufactures and sells calf-pulling aids, says most men pull with a force of 200 pounds. Therefore, maximum pressure should be around 400 pounds.

The 400-pound maximum is also a good guideline when using calf pullers, or jacks. The only problem is that jacks are built to apply more pressure. In instances when the jack is used as a lever, anywhere from 1,600 to 2,000 pounds of pressure can be applied, Rudnay says.

One device, called a calving gauge (shown in figure 3 on this page), attaches to the calf puller to show the amount of force being used. In the gauge pictured, when you've reached the green area, 200 to 300 pounds of pressure is being applied. The yellow area indicates 300 to 400 pounds of pressure, but you're exceeding 400 pounds once you've crossed into the red area.

Mistake #4 **Locking the hips in the pelvic inlet.** One of the most damaging injuries to the cow occurs when the calf's hips are wedged in the pelvic opening. Continuing to apply force during a hip lock, can cause the cow to suffer nerve damage and/or incur tearing of the reproductive tract.

Avoid this mistake in a forward delivery by changing the position of the calf after the head and shoulders are outside the vulva. Take a few minutes to turn the shoulders and head halfway around, or about 180 degrees. After turning, the top of the calf's head should face the ground. This twisting places the widest part of the calf's hips at the widest span of the pelvic inlet (see figure 4 on this page). Rudnay says it's too late to turn the calf if the stomach of the calf is outside the vulva. This is because the hips are already in the pelvic region.

In a backward delivery, pull one leg ahead and rotate the hips in the pelvic inlet so the largest diameter of the hip is in the widest section of the pelvic opening. This is similar to how the shoulders are treated in a forward delivery.

Mistake #5 **Incorrectly positioning chains or straps.** Broken front legs often result from too much traction being applied. This occurs when chains — or other pulling aids, such as leather straps or nylon ropes — are positioned incorrectly.

According to Fahning, the most popular way to apply chains is to place one loop above the fetlock — located between the pastern and knee joints — with a half-hitch below the fetlock (see figure 5 on this page). This method applies pressure at two points of the leg, which splits — and therefore lessens — the force being applied.

However, Youngquist says some people prefer the Dutch method, which places a single loop of the chain just below the fetlock. Placing the chain below the joint limits the amount of pressure applied to the metacarpel bone in the front leg or the metatarsel bone in the hind leg. Placing the chains below the fetlock has been shown to result in less damage to the calf; however, it is more difficult to maintain the chain's position.

Mistakes can be costly. So take the time to educate the people who assist with obstetrics on your farm. ■

Figure 4
The widest diameter of the pelvic opening is not at a 90 degree angle, but a 45 degree angle.

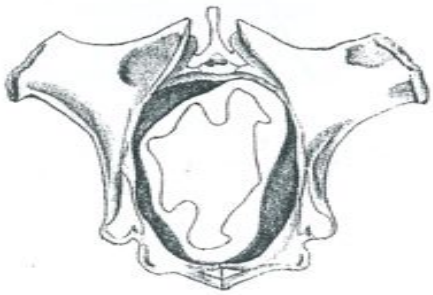
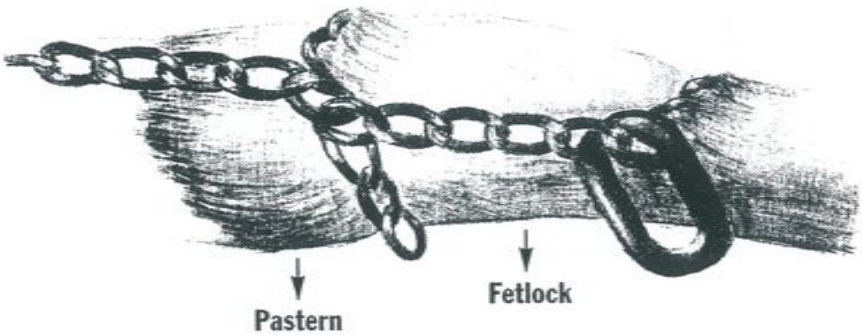


Figure 5



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