

Livestock Basic Care Vet Skills Clinic

2026 Minnesota SFA Conference Presentation

Presenter: Kari Ripley-Boysen

unrulyearthfarm@gmail.com | (651) 295-9645

Injections

Vaccinations

Jugular Venipuncture

Fractures

wiferylivestockskills@gmail.com

<https://mfma.org/The-Wifery-Livestock-Skills-Consortium>

Find us on Facebook: [The Wifery Livestock Skills Consortium](#)



Injections

Types of injections

- *Subcutaneous (SubQ / SQ): below skin, before muscle**
- *Intramuscular (IM): into muscle NOT IN VEIN**
- Intravenous (IV): only in the vein
- Intraperitoneal (IP): into abdominal cavity
- Intradermal (ID): into layer of skin just below the epidermis
-

General principles for administering injections

- Follow your veterinarian's directions for all injections.
- Pick an area of clean, dry skin for injection.

Preparing the product

- Clean the bottle tops with a small amount of alcohol on a cotton swab or ball.
- Only enter the bottle with a sterile needle. Never re-enter a bottle of injectable medicine with a needle that has already been used for an animal injection.
- Remove all needles from bottles prior to storage.
- Store all products according to label directions.

Using clean equipment

- Wash your hands before and after handling medicinal products.
- Use disposable syringes whenever possible.
- If using reusable syringes, use only hot water (no soap or detergent) to rinse them before using modified live virus vaccines. Chemicals may destroy the live virus and inactivate the vaccine.
- Use hot water and mild disinfectants to clean syringes for other types of injectable products.
- After cleaning, sterilize reusable syringes before reusing by autoclaving (high temperature, pressurized steam cleaning technique).

Choosing needles

- Use a sterile needle for each animal.
- Use single use disposable needles whenever possible. Reusing needles can transmit infections (such as Bovine Leukemia Virus) from animal to animal.
- Occasionally the same needle may be used for multiple injections (e.g., when giving many doses in a short period of time, such as with injectable worming products in feedlot cattle). If doing so change the needle frequently (e.g., every 10 animals).

- Choose the smallest needle size (diameter) that is reasonable to use for the product type and volume to be injected. This will minimize tissue damage and reduce leakage of the product from the injection site.
- Choose needles of the correct length for the type of injection you are giving and suitable for the size of animal being injected. Shorter needles (1.0 or 0.5 in.) can be used for subcutaneous injections; longer ones (1.5 in.) for intramuscular injections. Smaller animals (e.g. calves) have smaller muscle masses and should be injected with needles of appropriate length to prevent injury to nerves and other tissues.

Restraining animals

- Good animal restraint prevents injury to you and the animal. Good restraint prevents needles from breaking off at the hub when the animal moves suddenly, prevents accidental self-injection and allows good visualization of injection sites.

Volume of product to inject

- Inject quantities no greater than recommended on the label, at one body site.
- Split large volumes into smaller amounts and inject at different locations.
 - Generally, for IM injections, inject no more than:
 - Cattle: 10 mL per site
 - Sheep & Goats: 2-3 mL per site
 - Horses: 10-15 mL per site
 - Poultry & Rabbit: 1 mL per site
 - for SQ injections, inject no more than:
 - Cattle: 20 mL per site
 - Sheep & Goats: 5 mL per site
 - Poultry .25 - .5 mL per site

Mixing products

- Do not combine vaccines or products in the same bottle or syringe unless the label clearly states to do so. Mixing can adversely affect the products by changing the pH, the chemical composition, or by causing components of the drug to precipitate out of solution.
- Shake or agitate products as directed on the label prior to use to ensure that they stay in proper suspension in the bottle.

Injection techniques

Intramuscular injections

- Choose muscle tissue of lesser value to consumers for IM injections. In cattle, for example, IM injections where possible, are often given in the neck area instead of the hip.
- Draw air into the syringe and inject the same volume of air into the bottle as the volume you plan to take out of the bottle to equalize the pressure. Failure to do so will make it difficult to withdraw the contents of the vial or bottle.
- After filling the syringe with the product to be injected, point the syringe upwards and tap the barrel with your finger to make air bubbles move upwards into the syringe tip. Slowly and carefully push the plunger to eject the air bubbles from the syringe before injecting the product.
- Give IM injections deep into a muscle. Use a needle long enough to penetrate skin, subcutaneous tissue and fat to reach the muscle. The needle should enter the skin perpendicular to the skin surface.
- Insert the needle into the animal. Check that the needle is not in a blood vessel by pulling back on the plunger and observing for blood flow in the tip of the syringe. If blood appears, remove the needle and put it in a different location at least one inch away from the original injection site. * There are some studies that suggest this actually can cause more tissue damage and is unnecessary as the vessels are smaller than the needle circumference.

Subcutaneous injections

- Generally, you can choose the subcutaneous (SQ) route when given a choice of either the intramuscular (IM) or SQ on the product label. Sometimes can be orally given. Ask your veterinarian about alternative routes.
- Give SQ injections behind the elbow on the foreleg, halfway up the neck in front of the shoulder, or over the ribs well behind the shoulder.
- Use a 0.5- to 1-inch-long needle.
- To give SQ injections for goats/sheep/cattle, lift a fold of skin to make a skin "tent". Insert the needle through one side of the tent at an angle of 30 to 45 degrees relative to the surface of the body. For swine, it won't be possible to make a "tent", so slide the needle under the skin at an angle of about 30 degrees from parallel to the skin surface and inject.

Intravenous injections

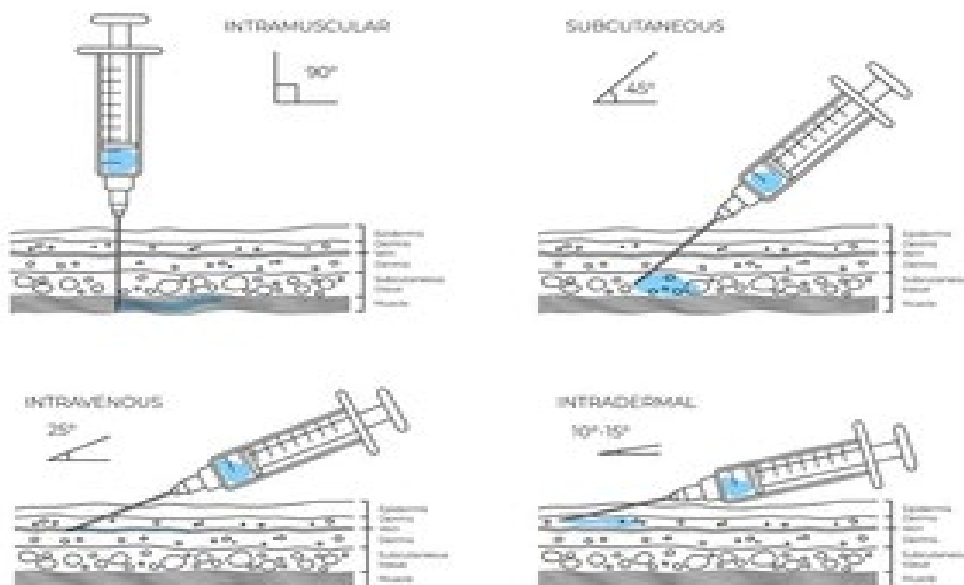
- For IV injections, get advice and training from your veterinarian, as this is a specialized technique that requires expertise and practice.

Multiple injections

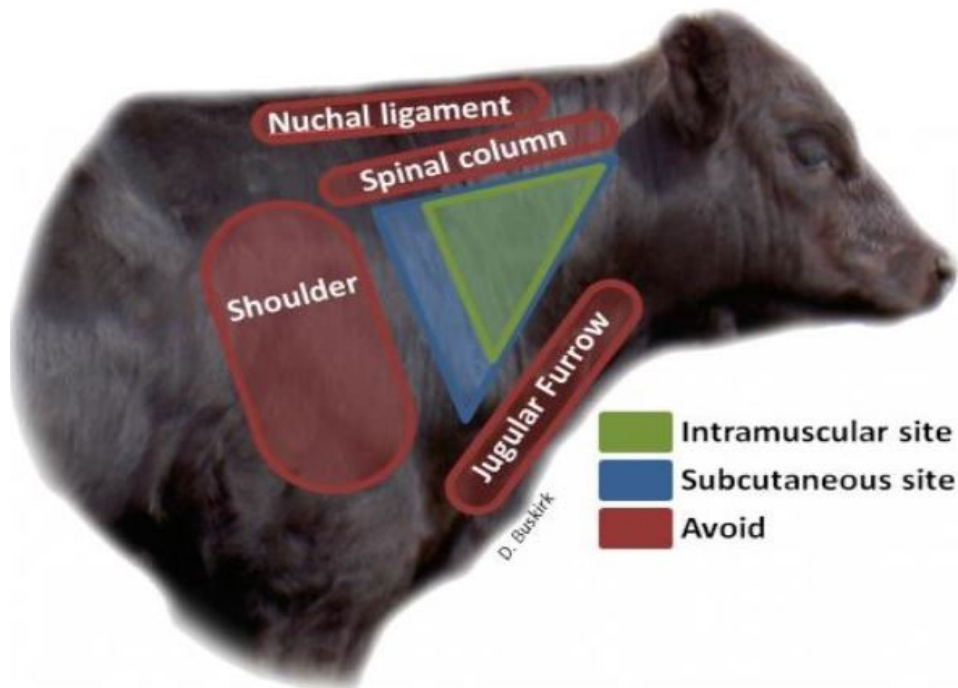
- Choose different injection sites on the body (e.g. opposite sides of the neck) when repeating treatments over a number of days.
- Place repeat injections at least 4 inches, or one hand-width from a previous injection site.
 - Document shots given over multiple days, record where shots were given each day to avoid multiple shots in same spot

Consequences of poor injection techniques

- Treatment failure, if product absorption is delayed or blocked.
- Drug residues in meat or milk if the drug can not be absorbed and metabolized in a timely manner.
- Animal suffering and incapacitation due to nerve damage and swelling from tissue reactions.
- Excessive trim at slaughter due to abscess, scarring, broken needles.
- Shock or death of the animal being treated, if medications unintentionally enter the bloodstream.
- Accidental human injection.



shutterstock.com · 2132041415



https://nwlivestock.com.au/injection-sites-for-livestock/?srsId=AfmBOopfr7VxSxG4u8K8h-aWeHSXwAgomcndxo6_ITZMDRN87uZVV6AQ

<https://www.fwi.co.uk/livestock/flock-focus-inject-some-care-into-your-vaccine-programme>

<https://www.aces.edu/blog/topics/beef/alabama-beef-quality-assurance-administering-cattle-health-products-properly/>

Vaccinations

Vaccination management key points

- Vaccines only stimulate the immune system to produce specific antibodies. Therefore, it is critical that the animal's immune system is functioning.
- Individual herds/flocks may require additional vaccines and/or variations in the vaccination schedule.
- A vaccination schedule on paper that is not or cannot be adhered to will not be effective if exposure occurs.
- Many vaccines will not provide a high degree of protection if an overwhelming level of exposure occurs. Biosecurity should be a priority in your management decisions.
- When you test for a disease, you are (usually) testing for the presence of antibodies, so know what you've given because it will show.
 - In other words, if you give a CL (caseous lymphadenitis) vaccine, the CL test will be positive.
 - A titer test is a laboratory test that measures the level of specific antibodies in a blood sample. Antibodies are proteins produced by the immune system to fight infections.

Vaccines work by imitating an infection

Vaccines work by imitating an infection—the presence of a disease-causing organism in the body—to engage the body's natural defenses. The active ingredient in all vaccines is an antigen, the name for any substance that causes the immune system to begin producing antibodies. In a vaccine, the antigen could be either

- Weakened or killed bacteria or viruses
- Bits of their exterior surface or genetic material, or
- Bacterial toxin treated to make it non-toxic

<https://www.cdc.gov/vaccines/basics/explaining-how-vaccines-work.html>

More information

The immune system protects the body against “foreign invaders” such as bacteria and other microorganisms that can cause disease. Certain proteins and other molecules of these invaders are known as antigens, and the immune-system defenses of the body respond to antigens by producing antibodies.

Drugs can be used to affect the immune system in several ways. Specific immunotherapy is perhaps the most familiar type—it involves giving a specific antigen (such as a vaccine) to cause a specific, controlled immune system response. As a result, vaccines can provoke effective, and often very specific, long-term immunity. Nonspecific immunotherapy can cause the immune system to produce proteins and other compounds that strengthen immunity. It may also give the immune system an overall boost to help it resist infection. Nonspecific immunity includes adjuvants, which may be added to a vaccine to increase its effectiveness, and immunostimulants, which may be given to treat long-term disease in which the immune system may be suppressed.

Types of vaccines

Several types of vaccines have been developed for use in animals. Traditionally, vaccines were grouped according to whether they contained living or killed organisms. Killed organisms are not as likely to provoke a strong immune response (providing immunity) as living ones. Because of this, vaccines that use killed organisms frequently also include additional compounds, called adjuvants, intended to increase the overall effectiveness of the vaccine. A killed vaccine may contain the entire killed organism or just the portion of the organism that provokes the immune response. A Type 1 recombinant vaccine is also classified as killed.

Although vaccines that include live organisms tend to be more effective, there are some challenges involved in developing them, because the live organisms can also cause disease if not modified in some way. Attenuated vaccines are vaccines containing live organisms that have been altered so that they are less likely to cause disease. They can reproduce, which will cause the animal to mount a strong immune response. However, even if vaccines are attenuated, they can sometimes revert to virulence, causing the disease they were intended to prevent. To further ensure safety, Type 2 recombinant vaccines, or gene-deleted vaccines, were developed to safeguard against attenuated vaccines reverting to a form that can cause disease. The specific genes that cause disease in the host are found and deleted. The resulting vaccine includes live organisms that can reproduce and generate a strong immune response in the host, but can never cause disease.

Live vectored vaccines, or Type 3 recombinant vaccines, are an alternate method of inducing strong immunity with no risk of reversion to virulence. Using technology, the genes that code for a protective protein are removed from the disease-causing organisms and placed into a “vector” organism that does not cause disease. This vector reproduces in the host, producing high levels of the protective protein. The host develops a strong immune response to this protein, which then protects it from exposure to the original disease-

causing organism. These vaccines are essentially free of adverse effects and are very stable.

DNA vaccines make it possible to immunize an animal by just injecting it with the DNA coding for a protein from the disease-causing organism. In addition to preventing diseases, DNA vaccine technology can also be used to treat diseases, including certain cancers.

In most countries, the production of vaccines is strictly controlled and regulated by government authorities. All vaccines are checked for safety and potency.

Giving vaccines

The simplest and most common method used to give a vaccine is with an injection in the muscle or under the skin. Intranasal vaccines are also available for specific diseases, but they can be difficult to give, especially to large animals. Vaccines can also be given in feed or drinking water, a method that is most often used in the poultry industry. Fish can be vaccinated by immersion in a solution of antigen, which is absorbed through their gills. Transdermal (absorbed through the skin) vaccines are also being developed.

Vaccination schedules

Vaccines stimulate an immune response, which lasts a varying amount of time depending on the specific vaccine and disease-causing organism. This means that a specific method and schedule of subsequent vaccine administration is needed to maintain immunity. In young animals there are challenges to mounting an immune response that must be considered, including the age of the animal and overcoming the immunity passed to the newborn by the mother. In mature animals some vaccinations are usually given yearly, while vaccination every 2 to 3 years is sufficient to ensure immunity with others.

Adverse consequences

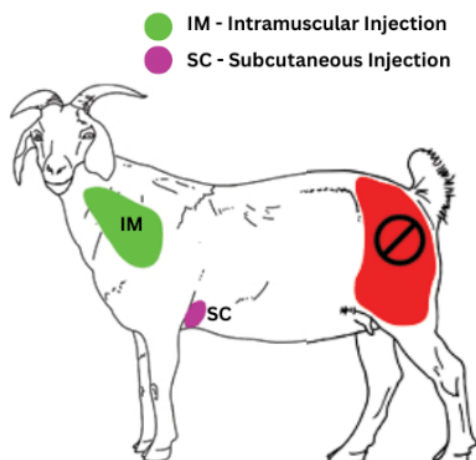
Modern, commercially produced, government-approved vaccines are generally very safe. The most common risks with vaccines include injection-site reactions (such as pain or swelling, which usually subside within a short time), allergic responses, incomplete inactivation, disease in animals with compromised immune systems, neurologic complications, and, rarely, contamination with other live agents. The stress of vaccination may be enough to activate an infection already present in the animal. Hypersensitivity reactions—which range from mild to anaphylactic shock—can also occur. All animals should be observed for a period of time following vaccination. Discuss with your veterinarian what signs you should watch for. In rare cases, certain vaccines have been linked to development of a type of skin cancer in cats at the site where the vaccine was given.

Passive Immunity

In addition to vaccination, there are other ways of creating or increasing immunity against disease. Passive immunity involves one animal producing antibodies by active immunization and then transferring those antibodies to a susceptible animal to confer immediate protection. The natural (and very important) form of passive immunization is the transfer of maternal antibodies to offspring across the placenta and in the colostrum (the first milk that is full of essential antibodies). Antisera may be produced in dogs against distemper and in cats against panleukopenia (also known as feline parvovirus enteritis). The effects of passive immunity are only temporary, however, as they only last for as long as the transferred antibody lasts, generally a few weeks.

In the same way, antibodies can be harvested from a portion of the blood to create immune globulin, which can then be given to another animal to provide immunity. For example, tetanus immune globulin (tetanus antitoxin) is given to animals and humans to confer immediate protection against tetanus.

<https://www.merckvetmanual.com/special-pet-topics/drugs-and-vaccines/vaccines-and-immunotherapy>



Sheep & Goat Injection Sites

Preferred IM site

Neck muscles in front of the shoulder. Avoid the hind leg to protect valuable cuts and sciatic nerve region.

Preferred SC sites

- **Neck** where skin can be tented.
- **Behind the shoulder over the ribs.** Part wool if needed to keep the needle clean.

Typical volumes per site: IM about 2 to 5 mL. SC about 2 to 5 mL. Split larger doses.

Alpaca Injection Sites

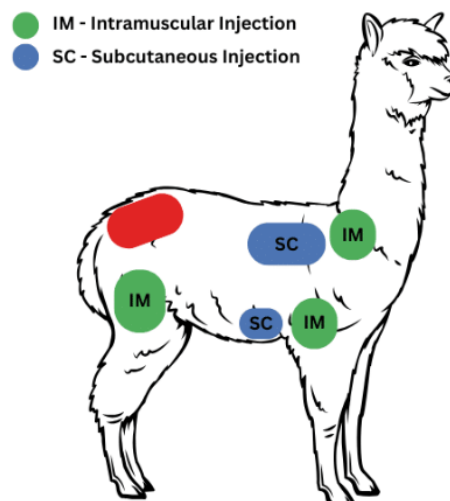
Preferred IM site

Neck muscles in front of the shoulder. Small volumes only, split doses if required.

Preferred SC sites

- Neck with a good skin tent.
- Behind the elbow or over the ribs where skin is loose.

Typical volumes per site: IM about 2 to 5 mL. SC about 2 to 5 mL. Split doses as needed.



Proper Location for Beef Cattle Injections

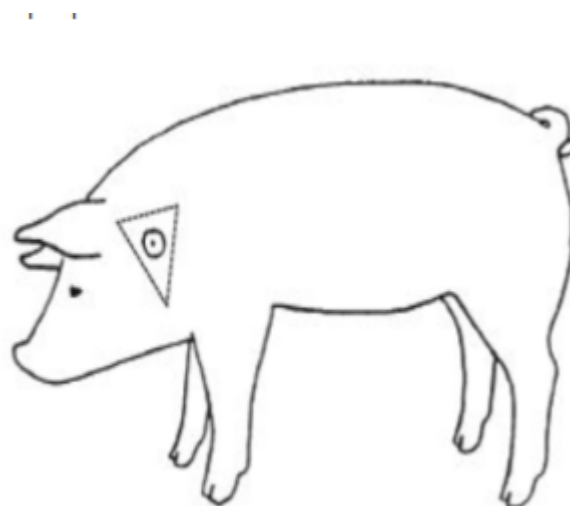
Only inject beef animals in the recommended safe zone on the neck, never in the rump or loin. This ensures that, if an animal has a reaction to the product and develops a lesion, it can easily be trimmed away from the less valuable chuck, rather than damaging the more valuable round cuts.



SQ Sites for Pigs



IM Site for Pigs



Jugular Venipuncture in Large Animals

1. Purpose

To safely and effectively collect blood or administer intravenous medication via the jugular vein in large animals using aseptic technique.

2. Scope

This procedure applies to veterinarians, veterinary technicians, students, and animal handlers performing jugular venipuncture on horses, cattle, sheep, and goats.

3. Responsibilities

- Ensure proper animal restraint and safety.
- Maintain aseptic technique.
- Accurately collect, label, and store samples.
- Monitor the animal for adverse reactions post-procedure.

4. Equipment and materials

- Halter, lead rope, or head gate/chute
- Clippers (if needed to shave the site)
- Antiseptic swabs (70% isopropyl alcohol or chlorhexidine)
- Sterile needles (18–20 gauge for large animals; 20–22 gauge for small ruminants)
- Syringes or Vacutainer system
- Blood collection tubes (e.g., EDTA, serum)
- Gloves
- Gauze or cotton
- Sharp disposal container

5. Safety precautions

- Always wear gloves.
- Use appropriate restraint to prevent injury to personnel and the animal.
- Do not reuse needles or syringes.
- Dispose of sharps in approved containers.

6. Procedure

Step 1: Restrain the animal

- **Horses:** Use halter and lead rope; consider stocks.
- **Cattle:** Use head gate or chute.
- **Sheep/Goats:** Hold animal standing or in sitting position; chute or helper.

Step 2: Locate the jugular vein

- Stand beside the animal's neck.
- Occlude the vein at the **thoracic inlet** (base of the neck) using your thumb or fist.
- Look for distention of the vein in the jugular groove.
 - For horses: upper 1/3 of neck is safest.
 - For ruminants: middle to lower 1/3 is preferred.



Step 3: Prepare the site

- If needed, clip hair over the puncture site.
- Disinfect the area with alcohol or antiseptic swab (repeat 2–3 times if necessary).
- Let dry.



Step 4: Insert needle

- Hold the needle bevel up.
- Insert at a **30–45° angle** to the skin (or more shallow in small ruminants).
- Watch for blood flashback to confirm placement in the vein.
- Attach syringe or vacutainer to collect sample.



Step 5: Collect sample

- Draw the required amount of blood.
- Gently invert tubes (if anticoagulant is present).
- Remove needle carefully.
- Immediately apply pressure to the site for 30–60 seconds to prevent hematoma.

Figure 3. Notice how the animal's eye lines up with its vein (see arrow).

Step 6: Post-collection care

- Monitor site for swelling or bleeding.
- Label the tube with:
 - Animal ID
 - Date and time
 - Type of sample (e.g., serum, EDTA ethylenediaminetetraacetic acid)

Step 7: Cleanup

- Discard used needles in a sharps container.
- Clean and store reusable equipment.
- Record the procedure in the animal's medical record.

7. Troubleshooting

Problem	Possible cause	Solution
No blood return	Missed vein	Reposition needle slightly or retry
Blood stops flowing	Collapsed vein or moved needle	Withdraw slightly; re-occlude the vein
Hematoma formation	Inadequate pressure post-stick	Apply firm pressure longer
Arterial puncture	Pulsatile bright red blood	Stop; apply pressure ≥ 3 min; avoid reusing site

8. Recordkeeping

- Animal ID
- Date and time of venipuncture
- Reason for collection
- Any medications administered
- Technician initials
- Any complications noted

Fractures

Assessment

Animal is limping or favoring leg; swollen, or deformed leg.

Equipment

- 1" Tape
- Scissors
- Padding (cotton/cast padding etc.)
- Paint stirrers (or other structural item)
- Conforming gauze
- Vet wrap/sticky gauze.



Instructions for simple Modified Robert Jones Bandage (MRJB)

A MRJB is a temporary compression bandage used in veterinary medicine to stabilize a fractured leg or provide temporary stabilization before fracture repair. It's made of cotton, gauze, adhesive tape, and sometimes thermoplastic material.

Here are some tips for applying a MRJB:

- **Prepare the patient:** Sedate the animal, or restrain, and place it in lateral recumbency (on its side) opposite the limb to be bandaged. Injured leg will be in air. Extend limb to full extension.
- **Apply stirrups:** Apply tape stirrups to the lateral and medial aspects of the limb.
- **Apply the primary layer:** Apply cotton or cast padding distally to proximally, starting at the level of the hoof.
- **Apply the secondary layer:** Apply conforming gauze roll distally to proximally, overlapping the cotton by 50%. Apply 2-3 layers. Gauze should not touch skin on edges. Add paint sticks to inside and outside of limb. Make sure they are NOT touching skin.
- **Apply tape to the distal end:** Undo the tape from stick, twist and apply tape up onto the distal end of the bandage/bottom of splint.
- **Apply last layer:** Apply Vet wrap/sticky gauze for moisture control.
- **Keep toes/hooves exposed:** Keep the toes/hoof exposed so you can monitor swelling.

MRJBs can cause complications such as: nerve issues, pressure ulcers, subcutaneous hematoma (bruising), and blisters if done incorrectly.

Inadequate application can also lessen blood flow to soft tissue.

Fractures in livestock

Fractures in livestock can be classified into several categories, which include closed (simple), open (compound), comminuted, epiphyseal (growth plate), greenstick (hairline), and pathologic fractures.

The different types of fractures in livestock are classified based on their characteristics and severity.

Types of fractures in livestock

- Simple Fracture: Here the bone is clearly comminuted across and can be transverse, oblique, or longitudinal.
- Compound Fracture: Here the bone penetrates outside, and it is very serious and usually associated with bleeding.
- Depressed Fracture: This occurs in the skull and compresses the brain.
- Comminuted fractures are those that cause splitting and sometimes fragmentation.
- Greenstick fracture: This occurs when the bone bends instead of breaking. It's common in young animals and mature ones due to a deficiency in vitamin D, calcium, and phosphorus.
- Impacted Fracture: These have the broken end of the bone and enter another fractured portion; sometimes the bones break and lie parallel to each other.

Signs and symptoms of fractures in animals

Swelling in the affected area, inability to move the limb, and whimpering are all common clinical signs. Inflammation can manifest as pain, swelling, and crepitations - a sound that occurs when bones rub against each other. Other signs of inflammation may include loss of mobility, abnormal posture, and gait.

How to treat fractures in livestock

Most animals with broken bones are typically best treated through a surgical operation that realigns and stabilizes the affected bones. Various options exist for stabilizing bones, such as bone plates and screws, pins that are inserted into the bone, or external frames that connect to the bone through the skin using pins.

Prior to manipulation, animals are usually anesthetized. For pets, general anesthesia is used, while for larger animals, local anesthesia is applied to the affected area. The use of local anesthesia may result in injury to the area being treated. Once the animal is anesthetized, the following steps are taken:

Reduction: This involves aligning bone fragments or broken ends.

Apposition: Broken ends are brought together to restore their original position.

Immobilization or fixation: This step ensures that there is no movement of the bone fragments, which can cause friction and prolong the healing process.

External immobilization or fixation

Involves the use of splints, also known as co-agitation or co-capitation splints. These splints can be made of wood or plastic. For establishing arm slings, plaster of Paris (POP) and bandages are used.

Before applying external fixation, it is important to protect the skin with a cushion, such as cotton wool, to avoid the risk of developing gangrene. Gangrene is caused by the death of local cells around a wound due to necrosis, which can be prevented by using a cushion. Additionally, some atrophy may also occur.

First aid for fractures

The first rule in a leg fracture is to ensure no further damage occurs, specialists say. Find a way to support and immobilize the injured limb until the calf can be treated by a veterinarian. Determine the location of the fracture, and if possible stabilize it with a padded bandage or splint. Don't just throw the calf in the back of a pickup and take it to the vet without protecting the leg.

The basic rule for a lower leg is to immobilize the joints above and below the fracture. If the fracture involves a cannon bone, immobilize the knee or hock above it, and the fetlock joint below it. If it's a tibia fracture (between the hock and stifle), without specialized splinting, it is difficult to immobilize the stifle. Seek veterinary help.

Lower leg fractures are easier to immobilize. Use lots of padding to keep it clean and stable to prevent a closed fracture from becoming an open fracture because that results in a more significant injury and cost.

Effective splints can be made from PVC pipe, starting with a pipe 2" or 3" inches in diameter, depending on size of the calf. Cut it lengthwise, in thirds, to make the splint.

- On the front leg, the splint must be long enough to go from the heel of the foot to a couple inches above the knee or hock.
- On a hind leg the splint must bend at the hock. Heat the PVC pipe with a cutting torch until it will bend at the proper angle. Use a file or rasp to round off the edges of the top and bottom, so it won't cut into the limb. Cover the ends of the splint with cotton, taped on for padding if needed.
- Place the splint on the back of the leg from the heel to above the knee or hock. Or, you can place it on the front of the leg from the toe to just above knee or hock.
- Before applying the splint, wrap the leg with roll cotton for padding between the leg and the splint. Start at the bottom of the leg and wrap it around and up the leg to create a half- to 1-inch layer of padding covering the leg.
- After applying the splint over the padding, wrap it tightly with roll gauze, and apply Vetwrap over the gauze. This will hold the PVC in place and stabilize the leg. Apply

sticky elastic tape at the top and bottom to help keep dirt, or straw and hay from getting under the splint.

Young calves generally heal quickly. They also grow fast, so make sure the splint doesn't become too tight on the leg. The split PVC pipe will allow for some expansion. The general recommendation is to reset the splint in three to four weeks. Don't take a splint or cast off too early. Even if the leg is healing well, the calf can re-fracture the leg if the support is removed too soon.

While lower leg fractures tend to heal easily, higher fractures, especially of the femur (between hip and stifle), are more difficult. A radius/ulna (between knee and elbow in the front leg) or tibia fracture (between hock and stifle) usually require a special type of splint called a Thomas-Schroeder splint.

Stall rest is important

A femur or humerus fracture will sometimes heal even though it can't be cast or splinted. In the right situation, it's amazing how calves with major fractures can heal with no intervention.

Newborn calves heal quickly, compared with older, heavier animals. Sometimes they heal so quickly that the leg has already started to heal by the time the animal is found. In this case, there may not be much to do but keep the calf quiet. Even if the bone is not perfectly aligned, it usually corrects over time because bone keeps remodeling as the calf grows.

Calves are sometimes put on painkillers and antibiotics, and they often heal in spite of having no way to immobilize the leg. The welfare of the calf needs to be addressed and monitored. If they can't heal, humane euthanasia may be indicated. As long as there is no bone sticking through the skin – no risk for infection – and the calf remains comfortable, it has a good chance of healing. The younger the animal, the faster bones heal.

Compound fractures

Carefully examine the leg to see if there is any bruising, open wounds, bone sticking through the skin, or any blood. If the skin has been penetrated, this greatly increases risk for bone infection. If there is any damage to the skin, put the calf on an antibiotic immediately. Open fractures have a poorer prognosis.

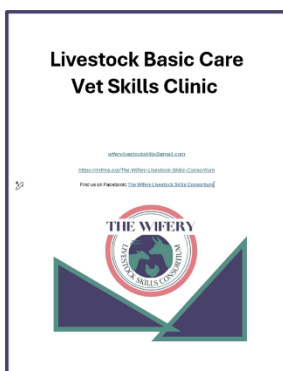
Excerpted from <https://www.beefmagazine.com/cattle-health/how-to-treat-leg-fractures-in-young-calves>

The Wifery Livestock Skills Consortium Curriculum

The Wifery Livestock Skills Consortium is designed as a curriculum-based skills training series for livestock farmers. The series teaches farmers the critical knowledge and skills needed to profitably raise livestock. It allows farmers to perfect the skills required to offer a high level of care to their animals.

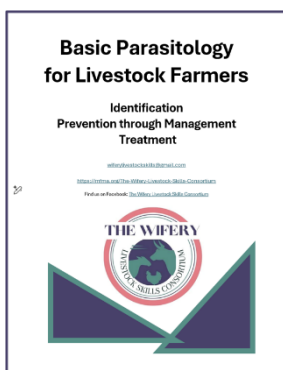
Each Wifery session includes the training material, plus a kit with the supplies / tools needed to perfect each task. Solutions include certified organic to pharmaceuticals. Sessions are limited to 20 participants to ensure ample time to learn and practice. Livestock, horse, rabbit, and poultry are included in the curriculum.

To join The Wifery cohort, please email wiferylivestockskills@gmail.com.

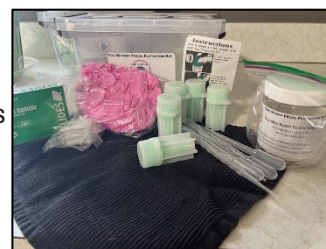


Livestock Basic Care Vet Skills

Topics covered include hoof trimming, wound treatments, suturing, splinting legs, giving shots (IM, SQ, IV, IP), drawing blood samples, giving IVs, etc. Kit includes syringes, needles, thermometer, gauzes, stethoscope, disinfectants, suturing kits, staple gun, etc.



[Basic Parasitology](#) for Livestock Farmers: participants bring manure samples from their animals and learn how to do on-farm fecal floats to ID the parasites. Discussion includes how to prevent parasitic problems and best treatment options. Fecal Float kit includes everything required to perform 5 complete samples.



Birthing & Babies: April 11, 2026. Burning Daylight Draft Farm. Topics covered include identifying pregnancy problems and solutions, handling dystocia, tubing babies, ear tagging, ear notching, tattooing, disbudding / dehorning, castrating, etc. Kit includes taggers, notchers, pullers, banders, bands, J-Lube, OB gloves, etc.

Management, Records, & Nutrition: November – December 2026. Many of the livestock care issues can be prevented or minimized by a high level of nutrition and management. This workshop focuses on learning principles and strategy discussions. Record keeping for production and financial analysis are included.



wiferylivestockskills@gmail.com

<https://mfma.org/The-Wifery-Livestock-Skills-Consortium>

Find us on Facebook: [The Wifery Livestock Skills Consortium](#)

The Wifery project is based upon work that is supported in part by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under agreement number 2024-38640-42989 through the North Central Region SARE program under project number ONC25-176. USDA is an equal opportunity employer and service provider. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

In addition to the NCR SARE grant, The Wifery has received support from Compeer Financial, Rice County Farmers Union, Minnesota Farmers Union; and continued support from MFMA.

