

# Goat Emergencies

Dr. Susan Kerr

Washington State University - Klickitat County

## **WARNING!**

This information is not intended to replace the advice of your veterinarian. These are hints to help when a veterinarian is not readily available.

## **STAY LEGAL!**

- Few medications are approved for use in sheep and goats
- To use any medication mentioned here, you must do so on the advice of a licensed veterinarian with whom you have a valid veterinarian-client-patient relationship
- Using any unapproved medication or an approved medication in any way not specifically listed on its label without the advice of a veterinarian is a violation of the federal Food Safety Act and punishable by fines and incarceration
- Sheep and goats are food animals! Avoid residues!

## **BASIC PRINCIPLES OF FIRST AID**

- Protect yourself from harm
- Do no further harm to your animal
- Stabilize and prevent secondary injuries
- Seek assistance ASAP
- Stay calm; things often look worse than they are
- PREVENT injuries and illnesses!

## **QUICK ASSESSMENT**

- Know what is normal for your animal(s)
- Take T P R (temp, pulse and respiration rate)
- Assess attitude, appetite, anatomy, behavior
- Review history (vaccinations, worming, kidding/ lambing recent changes in management, etc.)
- Be observant—look at environment and herd

## **ANAPHYLACTIC SHOCK**

- Allergic reaction to any antigen
- Can happen at any age to any new or previous antigen
- More common after previous exposure to antigen
- Signs: trembling, respiratory distress, vomiting, diarrhea, drooling, collapse, seizures, death before help can arrive
- Treatment: epinephrine (IV > IM); may need fluid therapy
- Prevention: always have appropriate epinephrine dose drawn up in syringe and ready for use when giving any injection. Use proper injection techniques (aspirate before injecting) when using any product.

## **ELECTROCUTION**

- Due to electricity/water interface, faulty wiring, lightning, chewing on wires
- Death can be instantaneous due to respiratory and/or circulatory arrest
- If non-fatal: coma, depression, weakness, paralysis and/or hypersensitivity, perhaps for life
- May see singe marks on hair and skin
- Animals can be thrown by the shock and even sustain fractures from extreme muscular contractions
- Peracute treatment: epinephrine
- Use caution! What was the cause? Avoid risk to self

## **LACERATIONS AND HEMORRHAGE**

- Stay calm; things often look worse than they are
- Firm direct pressure stops most bleeding
- Apply clean barrier, then firm pressure; don't let go; can overwrap with very, very firm pressure

- May need to apply hemostat to individual blood vessels if you can see them or even brief tourniquet to stop bleeding to assess injury
- Protect from contamination
- Stitches will hasten healing, reduce scarring
- Antibiotics, anti-inflammatories, tetanus booster
- PREVENT! Look for hazards in environment

### **PUNCTURES**

- Clean well, soak, keep open
- May need to bandage for protection
- Do not suture
- +/- antibiotics, anti-inflammatories
- Tetanus booster and/or anti-toxin
- Prevent

### **CHOKER**

- Potentially fatal
- Usual cause: grain, carrot, apple, potato
- Distress, anxiety, drooling, bloat
- Protect self if examine animal's oral cavity (teeth; Rabies exposure potential)
- Pass stomach tube with caution—may not be able to pass tube; can do injury with force
- May need to use trocar (rumen puncture) to relieve gas; get to vet ASAP—may need surgery
- Know anatomy—larynx isn't a potato!

### **FREE GAS BLOAT**

- Usually secondary to choke or some other primary problem
- Can hear "ping" on distended upper left side
- MAY respond well to stomach tube or "bit"
- Can suffocate from severe pressure on lungs
- Trocar is LAST RESORT!
- Try to eliminate primary cause (choke, etc.)

### **FROTHY BLOAT**

- Usually caused by fresh legumes or finely-ground grain
- Ruminants cannot burp out frothy gas (tiny bubbles)
- Rumen distends out greatly on upper left side
- Pressure from rumen can cause suffocation
- Tympanic (gas ping) sound unlikely
- Responds poorly to stomach tube or trocar
- Need surfactant like poloxalene, oil of turpentine, vegetable oil or mineral oil to make bubbles into free gas
- May need to pass stomach tube to administer surfactant and again afterward to expel free gas
- PREVENT!

### **DYSTOCIA**

- Rarely are true EMERGENCIES
- Posterior presentations are most time-sensitive for kid survival
- Could you do a terminal C-section? Think about it; be ready

### **FRACTURES/DISLOCATIONS**

- Severe lameness, swelling, crying
- Not usually immediately life-threatening
- Splint or cast AND strict rest needed for 3-6 weeks
- Splints are reasonable salvage effort for market animals
- Anti-inflammatories help with pain and swelling; no antibiotics if no wound

- No cast or splint if fracture is above stifle or elbow (makes things worse)
- Try to prevent by reducing environmental hazards

### **SPLINTING**

- MUST be able to immobilize joint above and below fracture
- Fractures heal more quickly in young animals
- Need splint/cast AND STRICT REST for rapid healing; keep clean and dry, too
- Monitor for normal heat (toes not too hot or cold), swelling, smell
- Leave on for at least 3-6 weeks (check daily; kids and lambs grow fast); controlled access after
- Anti-inflammatories reduce swelling and pain
- If wound, need to change daily

### **TOXIC INDIGESTION**

- Caused by acute or chronic carbohydrate overload
- Quite common; favorite or boss goat factor
- Can be fatal even days later
- Bloat, severe diarrhea, depression, recumbency, death
- May need IV fluids, probiotics, oral antibiotics, bicarbonate, anti-inflammatories, shock-dose steroids and/or lots of other medications
- Many serious sequelae (founder, etc.)
- PREVENT!

### **MILK FEVER**

- Can be fatal
- Usually in older, high-producing does; rarely seen in sheep
- Usually 24 hours before or after kidding or even 3-4 weeks later but can be any time during lactation
- Cold, weak, down, muscle tremors, droopy ears, poorly responsive, seizures
- Give calcium PO, SQ, IM, IP or IV (best if given by vet; give slowly and monitor heart rate for irregularity)
- Grass tetany is similar, but usually when animals are on lush spring feed or low magnesium; need Cal-MPK; more common in sheep
- PREVENT through nutritional management (generally: lower calcium diet pre-parturition, higher post-parturition)

### **PREGNANCY TOXEMIA**

- Due to negative energy balance at end of pregnancy
- Dull, depressed, poor appetite, weight loss, fruity breath, ketones in urine
- Need propylene glycol, IV dextrose; may need to have C-section or labor induction
- First aid: get carbohydrates in ASAP— grain, molasses, Karo syrup...
- PREVENT through ensuring gaining plane of nutrition in last 6 weeks of pregnancy

### **RESPIRATORY DISTRESS**

- Many causes: allergic reaction, bloat, stress, electrocution, cancer, pneumonia, toxicity, poisonous plants, choke, acidosis, WMD, etc.
- Prevent with good ventilation, no overcrowding
- Can be precipitated by high daytime and low nighttime temperature weather
- Do not stress
- Isolate from herdmates
- Take temp
- Antibiotics may not help
- Try to get diagnosis for sake of herdmates

### **TOXIC MASTITIS**

- PREVENT
- Very serious; can be fatal
- Usually due to a coliform or gas-producing bacteria
- Udder may be blue and cold or red and hot

- Milk may be watery or bloody or gassy
- Anti-inflammatories can be very effective
- May need IV fluids and shock-dose steroids
- Oxytocin and milk out?
- +/- antibiotics...

### **URINARY CALCULI**

- Usually a problem of wethers on high-grain diets when Phosphorus levels higher than Calcium levels
- Life-threatening if completely block urethra
- No urine; straining, crying; wet or bloody prepuce
- Can be mistaken for constipation
- May be able to treat by snipping off urethral process if stones lodged there
- Get to vet ASAP for treatment before urethra ruptures
- PREVENT! (feed minimal grain; 10 gm. ammonium chloride daily; salt to increase water intake; Ca>P)

### **UTERINE PROLAPSE**

- Looks awful!
- Usually with milk fever or after difficult/prolonged labor
- Protect, keep clean (garbage bag), get to vet
- No need to stitch up vulva if replaced properly
- If no vet available: restrain doe; elevate uterus; clean it with HOT water; GENTLY replace using fists, not fingers (be patient); give calcium and oxytocin after 100% returned; uterine boluses; should breed back fine if no infection

### **POISONINGS**

- Plants (know the toxic ones in your area), chemicals
- Few specific or readily-accessible antidotes
- General: activated charcoal, mineral oil, fluids
- Focus on prevention

### **FIRST AID KIT**

- See list for contents
- Contact vet before giving extra-label medications
- Monitor expiration dates
- Follow label recommendations re: storage (temperature, light, etc.)
- Have epinephrine on hand whenever giving injections
- Anti-inflammatories can be a life saver for toxic animals
- 3/8" I.D. vinyl or polyethylene tube with rounded edges is effective stomach tube; use w/ bite block or oral speculum

### **RESOURCES**

- [www.merckvetmanual.com](http://www.merckvetmanual.com)
- [www.sheepandgoat.com](http://www.sheepandgoat.com)
- Goat Medicine, 2nd ed. by Mary Smith and David Sherman. Publisher: Wiley-Blackwell, 2009. ISBN-10: 0781796431. ISBN-13: 978-0781796439.

The information herein is supplied for educational or reference purposes only, and with the understanding that no discrimination is intended. Listing of commercial products implies no endorsement by WSU Extension. Criticism of products or equipment not listed is neither implied or intended. Some medications mentioned herein are available only by prescription, and other drugs are not labeled for use in goats. These drugs can only be used on the advice of a licensed veterinarian when a veterinarian-client-patient relationship exists. Other use violates federal law. Consult your veterinarian about the extra-label use of medications. This information is not intended to replace the advice of your veterinarian. Consult your veterinarian whenever you have a question about your animal's health.

## **Small Ruminant First Aid Supplies**

Epinephrine  
Oxytocin  
Non-steroidal anti-inflammatories  
Antihistamines  
Vitamin B complex  
Injectable Vitamin E/Selenium supplement  
Injectable antibiotics  
Antitoxins (Overeating, tetanus)  
Sterile 50% dextrose  
Pepto Bismol®  
Milk of Magnesia®  
Propylene glycol  
Baking soda  
Mineral oil  
Electrolytes  
Probiotics  
Activated charcoal  
Karo® syrup  
Molasses  
Triple antibiotic ointment  
Bandages  
Sterile gauze pads  
Waterproof bandage tape  
Non-adherent bandage pads  
Cotton bandage rolls  
Vet Wrap® or similar bandage  
Duct tape  
Splints  
Tourniquets  
Antibiotic ointment  
Betadine® or Nolvasan® scrub and solution  
Isopropyl alcohol  
Saline solution for irrigation  
Hydrogen peroxide  
Ophthalmic ointment  
Oral calcium supplements  
Epsom salt  
Scissors, hemostats, scalpel blade, forceps  
Suture  
Knife  
Blood stop powder  
Chemical ice pack  
Latex disposable gloves  
Sterile needles, various sizes  
Sterile syringes, various sizes  
60 cc drench syringe

Blanket  
Stethoscope  
Thermometer  
Weight tape  
Halter and lead rope  
5-gallon bucket  
Stainless steel pail  
Funnel  
Various sized naso-gastric tubes  
PVC pipe (speculum for stomach tube)  
Trocar  
Garbage bags  
Paper and pen  
Flashlights and batteries  
Emergency contact list  
Hoof trimmers  
Bleach  
Sterile lubricant  
Livestock marking crayon  
Clippers  
Disposable razor  
Tube feeder  
Head snare  
Towels  
Elastrator  
Prolapse paddles  
Fly repellent  
Calculator

The information herein is supplied for educational or reference purposes only and with the understanding that no discrimination is intended. This list is not intended to be comprehensive. Listing of commercial products implies no endorsement by WSU Extension. Criticism of products or equipment not listed is neither implied nor intended.

Some medications mentioned herein are available only by prescription, and other drugs are not labeled for use in sheep and/or goats. These drugs can only be used on the advice of a licensed veterinarian when a veterinarian-client-patient relationship exists. Other use violates federal law. Consult your veterinarian about the extra-label use of medications. Store medications according to label directions.