

COOPERATIVE EXTENSION
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SELECTED SMALL RUMINANT MEDICAL EMERGENCIES AND FIRST AID

UMD Lambing and Kidding School
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Susan R. Kerr, DVM, PhD
 WSU-Klickitat County Extension Director

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WARNING!

**This information is not intended to
 replace the advice of your veterinarian.**

**These are hints to help you
 when a veterinarian
 is not readily available.**

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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!

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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!**



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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**

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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



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!



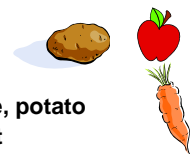
FREE GAS BLOAT

- 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.)



CHOKE

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





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)
- Anti-inflammatories reduce swelling and pain
- If wound, need to change daily



Toxic Indigestion

- Quite common; favorite or boss goat factor
- Caused by acute or chronic carbohydrate overload
- 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



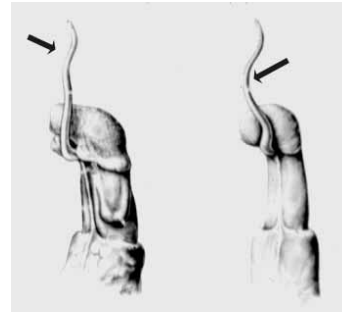
Toxic Mastitis

- 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)



From www.acvs.org/AnimalOwners/HealthConditions/FoodAnimalTopics/SmallRuminantUrolithiasis/

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

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
- www.sheepandgoat.com
- **Goat Medicine, 2nd ed. by Mary Smith and David Sherman. Publisher: Wiley-Blackwell, 2009. ISBN-10: 0781796431. ISBN-13: 978-0781796439.**

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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.

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