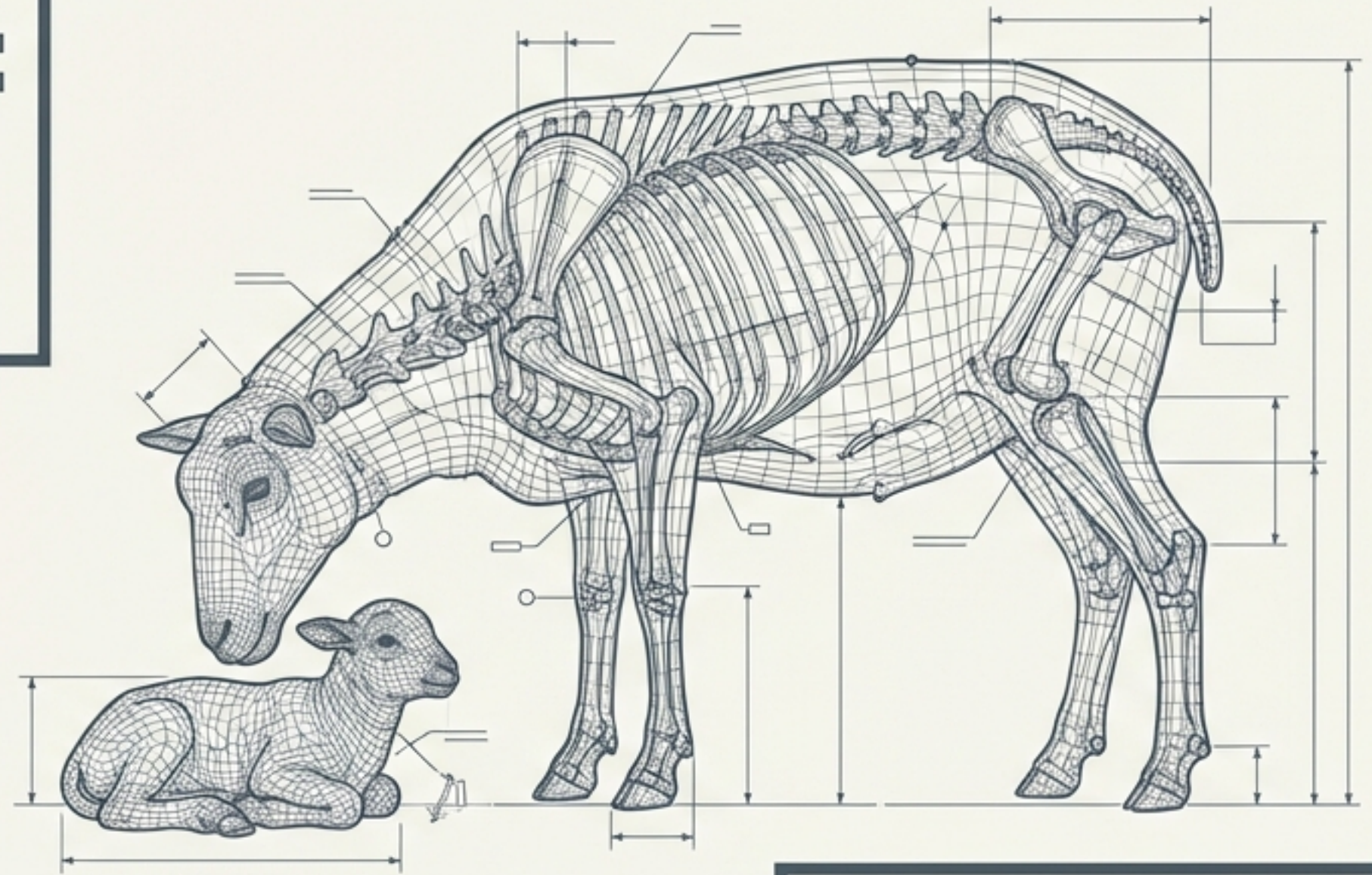


Field Guide to Lambing: The Shepherd's Clinical Protocol

**Labor stages, intervention
triggers, newborn triage,
and emergency response.**



**Preparation either proves
sufficient here or it does not.
There is no partial credit.**

Triage Color Code

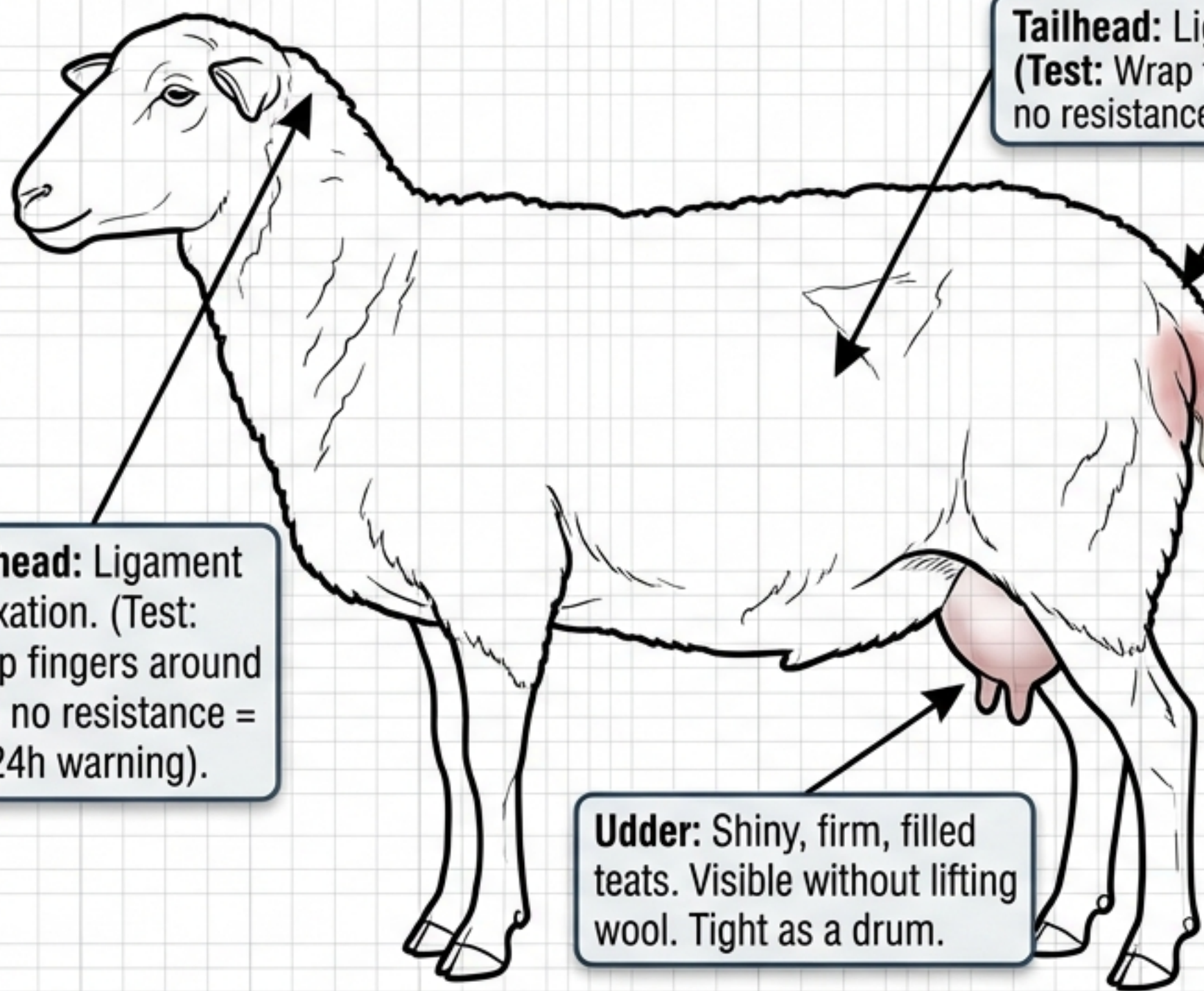
Observe / Normal Protocol

Intervene / Monitor Closely

Emergency / Vet Required

LABOR PHASE

The 48-Hour Watchlist: Recognizing Imminent Labor



Tailhead: Ligament relaxation. (Test: Wrap fingers around with no resistance = 12-24h warning).

Tailhead: Ligament relaxation. (Test: Wrap fingers around with no resistance = 12-24h warning).

Vulva: Swollen, elongated, pinkish/reddish, clear/white mucus.

Udder: Shiny, firm, filled teats. Visible without lifting wool. Tight as a drum.

Behavioral Checklist

- Restlessness / Pawing / Nesting
- Separating from flock
- Lip curling
- Loss of appetite (within 3 hours of labor)

KEY TRIAGE RULE: Any single sign warrants monitoring. Multiple signs = Do not leave the property.

Stage 1: Cervical Dilatation (2 to 12 Hours)

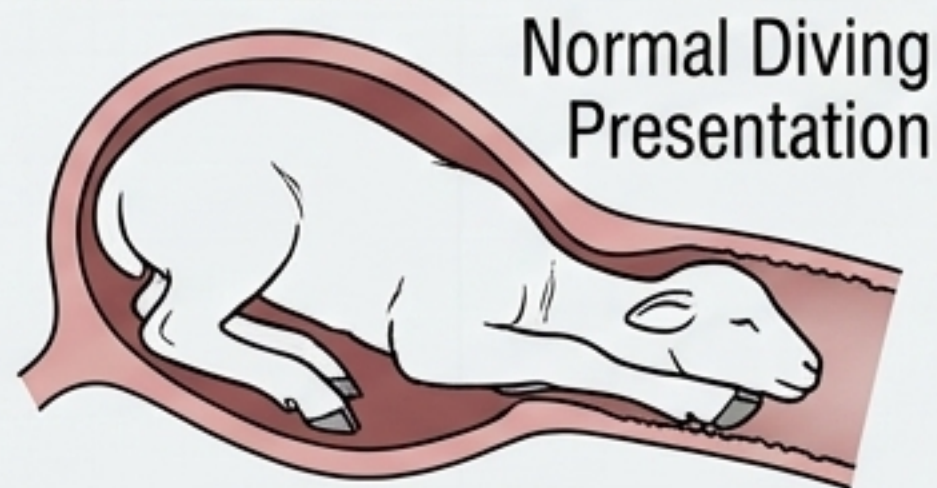
- Contractions begin every 15 mins, progressing to 2-3 mins.
- Shifting, pawing, thick mucus string.
- No active pushing.

RULE: DO NOT DISTURB.

Do not move ewe to a jug; moving increases cervical complications.

Stage 2: Active Delivery (30 Mins to 2 Hours)

- Water bag ruptures.
- Active pushing.
- 5-10 mins per lamb once engaged (10-60 mins between multiples).



Normal Diving Presentation

Stage 3: Placenta Expulsion (2 to 8 Hours)

- Uterine contractions continue.
- Nursing triggers oxytocin to aid expulsion.

RULE: NEVER PULL A HANGING PLACENTA.

Hemorrhage risk. Monitor if not passed by 12-18 hours.

LABOR PHASE

The 30-Minute Rule: When to Intervene

Trigger 1: Water bag appears -> Wait 30 mins -> No feet visible?

CHECK EWE

Trigger 2: Active, visible pushing begins -> Wait 30 mins -> No progress?

INTERVENE

Trigger 3: Stage 1 (dilation) exceeds 8 hours

CHECK EWE

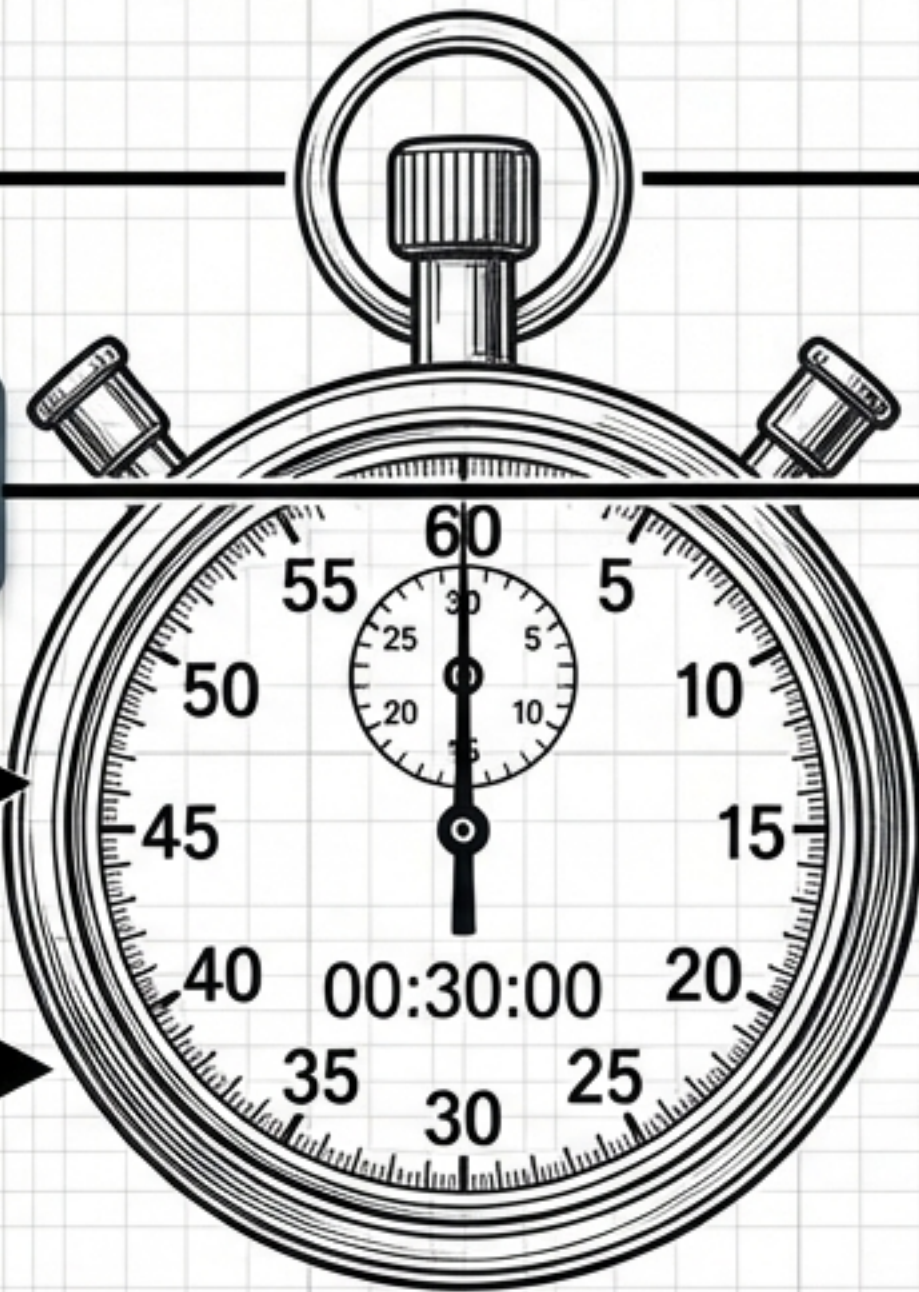
Trigger 4: Water bag visible for 1+ hour with NO pushing

CHECK EWE

Trigger 5: Ewe shows severe distress or exhaustion

IMMEDIATE INTERVENTION

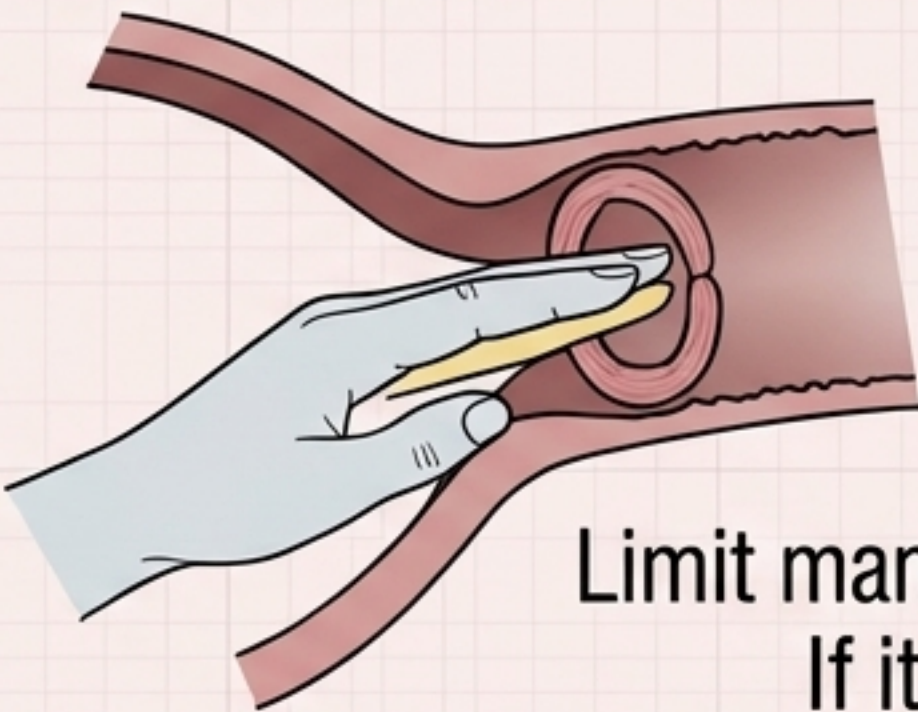
KATAHDIN CAVEAT: Katahdins deliver fast. 20+ minutes of straining with nothing visible warrants investigation.



Step 1: Bio-Security Prep

- Restrain ewe (hog panels work well).
- Wash rear end, wash hands with surgical scrub.
- **MANDATORY:** Arm-length OB gloves (zoonotic disease risk).
- Generous water-based OB lubricant.

Step 2: The Cervix Check



Use “duck bill” hand formation to test dilation.

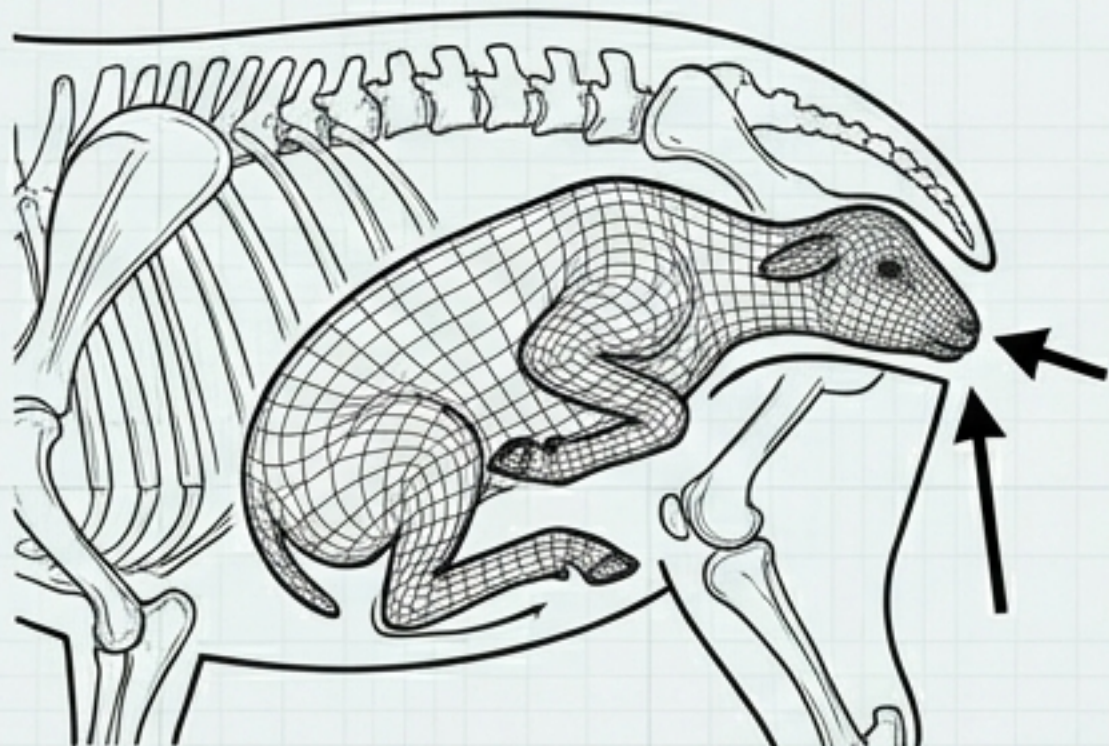
RULE: Never pull through an undilated cervix.

Limit manual stretching to 30 minutes.
If it fails, call vet for C-section.

Step 3: Assisted Delivery Mechanics (Normal Presentation)

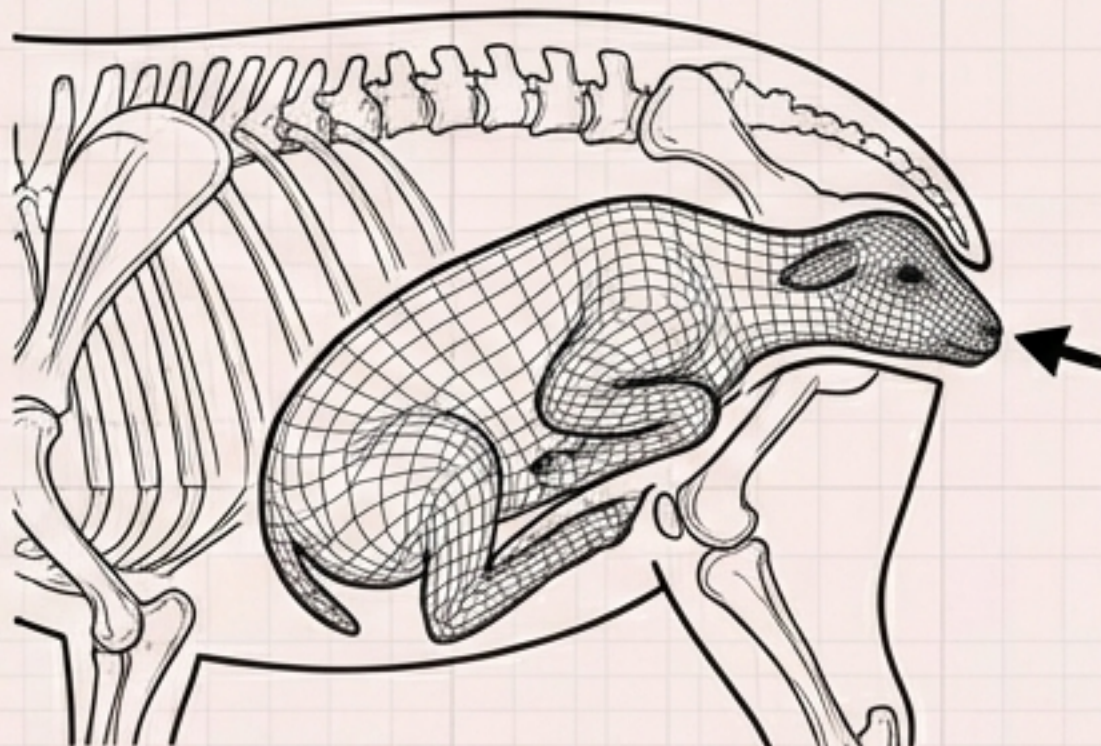
1. Grasp both front legs above the fetlock joints.
2. Pull **ONLY** during contractions (work with her).
3. Pull in a downward arc, following the birth canal.
4. Apply edownward arc, following the birth canal.
5. **CRUCIAL:** Rotate lamb 30 degrees after pull).
Cru fitorax clears to prevent hip lock.
6. Pull halfway out; let ewe finish to improve bonding.

1. One Leg Back (Most Common)



Correction: Push head back slightly. Trace visible leg to shoulder, cross to other shoulder, follow retained leg down. Cup the hoof to protect uterus. Extend fetlock and elbow forward.

2. Both Legs Back (Head Only)

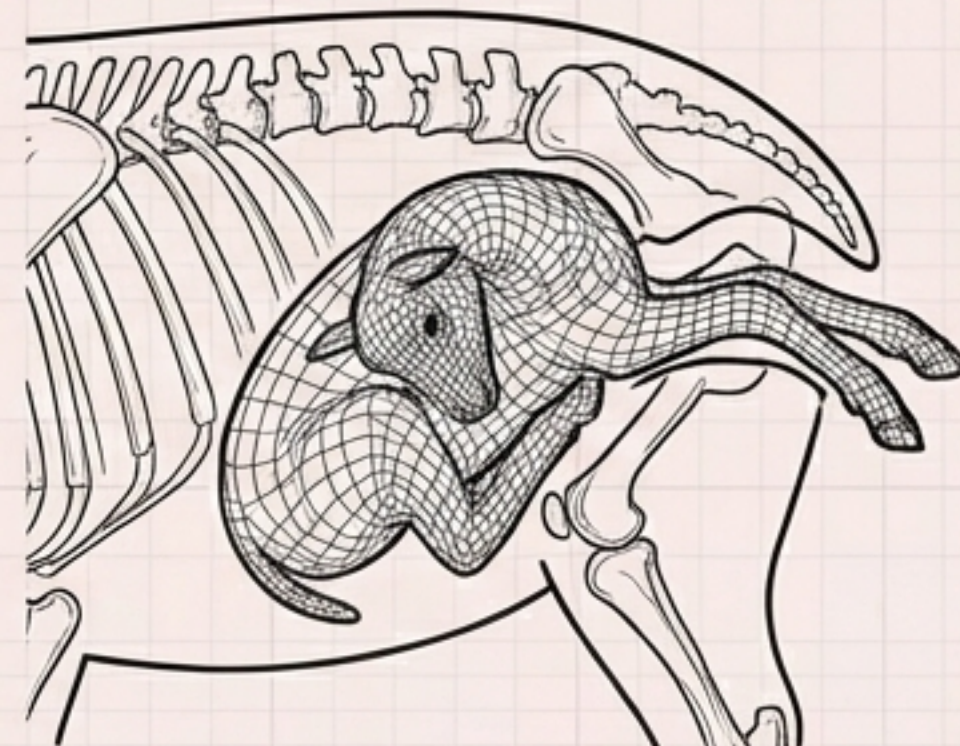


Correction: Push head back gently with lube.

WARNING: Head swells rapidly. Bring legs forward one at a time.

Post-birth: Tube feed immediately as swollen tongue impairs nursing.

3. Head Back (Feet Visible)



Correction: ATTACH ROPES TO FRONT LEGS FIRST. Push lamb back to find head (use wire head snare behind ears). Guide head into position between the legs.

Sidebar: Reading the Joints

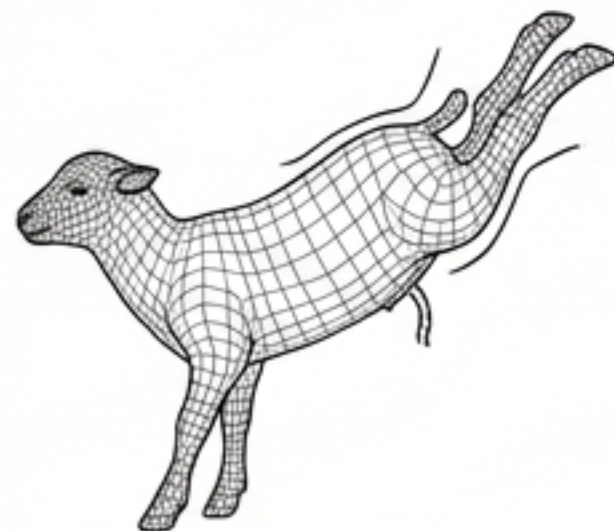


Front Legs:
Knee and fetlock bend the same direction.



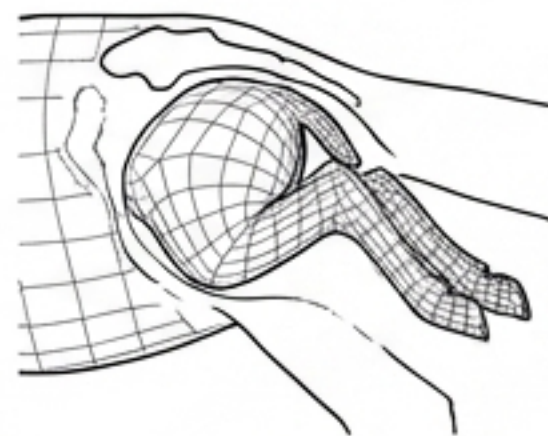
Hind Legs:
Hock and fetlock bend in opposite directions.

4. Backward (Soles Up)



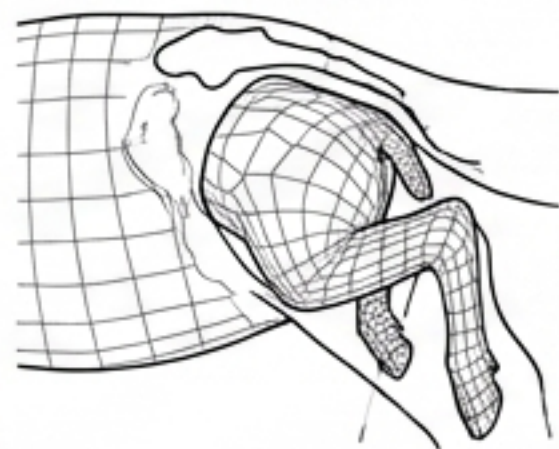
Correction: Fast delivery required. Umbilical cord breaks early; lamb will try to breathe inside. Secure tail/legs, apply fast traction once hips clear.

5. True Breech (Tail First)



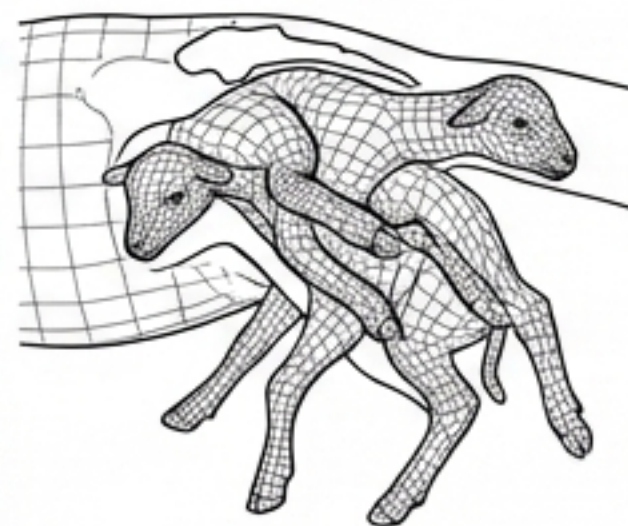
Correction [HIGH RISK]: Extreme risk of uterine tear. Flex stifle/hock, strongly cup hooves, bring legs back one at a time. Call vet if unconfident.

5. True Breech (Tail First)



Correction [HIGH RISK]: Extreme risk of uterine tear. Flex stifle/hock, strongly cup hooves, bring legs back one at a time. Call vet if unconfident.

6. Tangled Twins



Correction: Trace joints to pair limbs. Attach ropes to Lamb 1. Push Lamb 2 back. Pull Lamb 1.

NEWBORNS

The Golden Hour: Neonatal Triage Protocol



1. AIRWAY (CLIP/CLEAR)

Wipe nose/mouth. Rub chest vigorously. If not breathing: hold briefly by hind legs to drain fluid.



2. NAVEL (DIP)

Apply 7% iodine within 15-30 mins. Use a dip cup for full immersion, not a spray. Re-dip at 12h.



3. TEATS (STRIP)

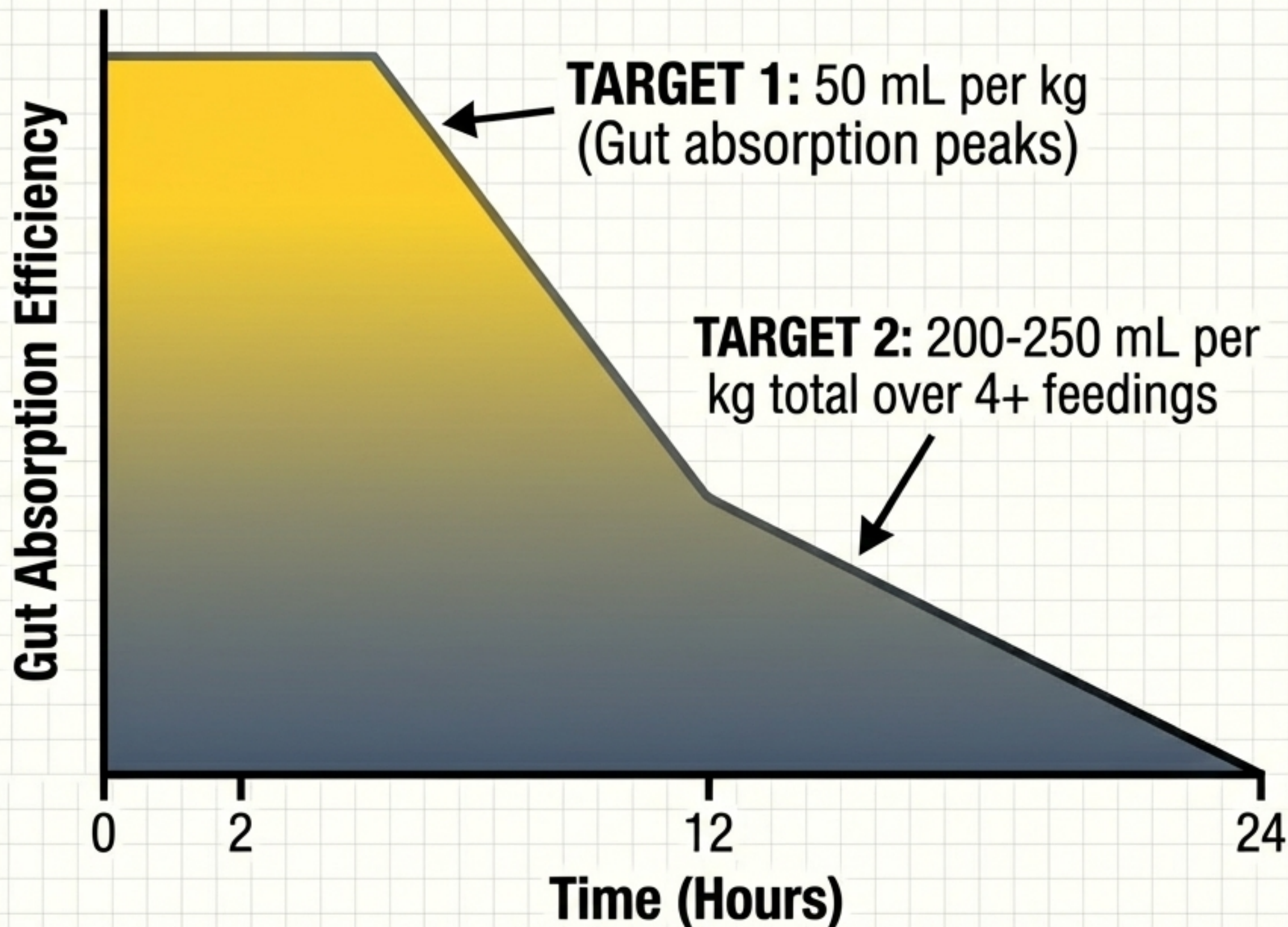
Strip both teats to confirm milk flow and remove wax plugs.

Lamb Viability Check (Assess three reflexes to confirm life):

- **TOES:** Pinch between toes → Leg pulls away.
 - **MOUTH:** Finger in mouth → Suckle reflex.
 - **THROAT:** Touch back of throat → Gag reflex.
- (All three absent = likely deceased)

NEWBORNS

Colostrum: The Closing Window



Source Hierarchy

1. **Dam** (Farm-specific antibodies)
2. **Foster Ewe**
3. **Cow/Goat**
4. **Commercial Replacer**

QUALITY: Brix score >22% required.

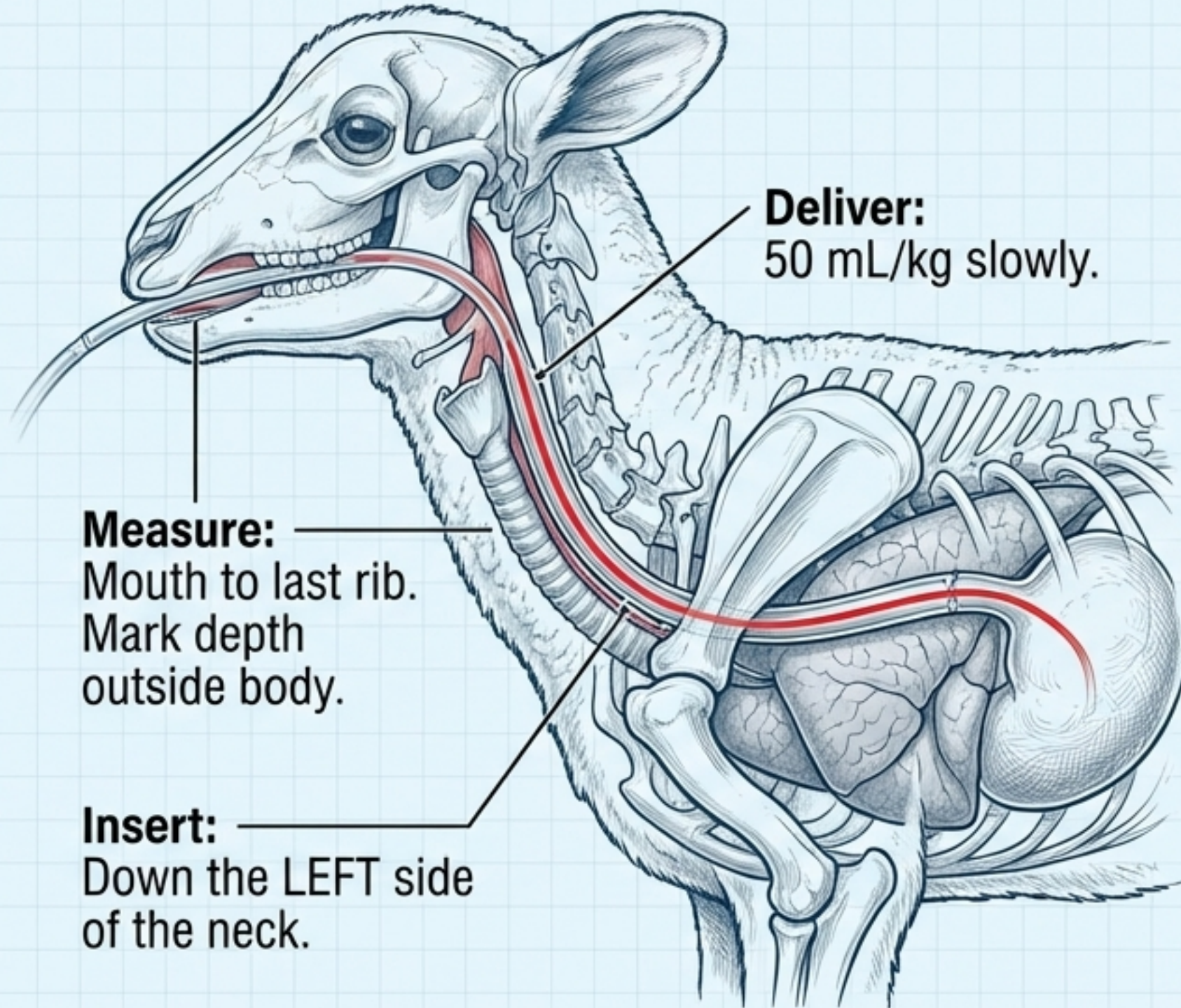
WARMING RULE: Warm to 104F in water bath.
NEVER MICROWAVE (destroys antibodies).



Neonatal Tube Feeding Protocol

Triage Rules

- ✓ **YES:** Weak but conscious, can swallow, warmed.
- ✗ **NO:** Unconscious, cannot swallow, severely hypothermic with cold mouth. (Warm first!)



Safety Checkstand: The Syringe Pull-Back Test

- Attach empty syringe, pull plunger back.
- ✓ **Strong Resistance =** Vacuum of stomach. **SAFE.**
 - ✗ **Easy Movement =** Air in trachea/lungs. **DANGER. REMOVE IMMEDIATELY.**



The Hypothermia Matrix: The Age Rule



Step 1: Quick Field Check

Finger in mouth: Warm (102-103F) /
Cool (99-101F) / Cold (<95F, emergency)

UNDER 5 Hours Old
(Brown Fat Present)

**Step 2:
Step 2: The Age Fork**

OVER 5 Hours Old
(Brown Fat Depleted)

1. Dry thoroughly

2. Warm in box to 99F

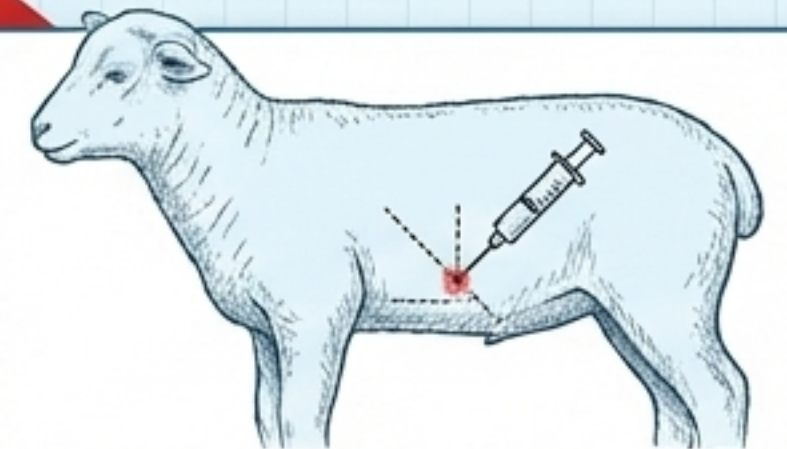
3. Tube feed colostrum

1. IP GLUCOSE INJECTION FIRST

2. Warm in box to 99F



WARNING: Warming an older lamb without glucose first causes fatal seizures.



Step 3: IP Injection Specs

Site: 1 inch below navel, 0.5 inch to side. 20-gauge needle, 45-degree angle toward tail.

Dose: 10 mL/kg of 20% dextrose.



The First 72 Hours: Monitoring & Milestones

1-2h

First belly fill check.
Strip teats.

2-6h

Second belly check. Re-dip navel.
Eye check (entropion).
Joint check (contracted tendons).

12-24h

Meconium passed.
200+ mL/kg colostrum
target reached.

Move to mixing pen if bonding
solid. Nursing confidently.

48-72h

Weight Benchmarks

Birth Type	Expected Birth Weight	Target Daily Gain
Singles	9-10 lbs	0.5 - 0.75 lb/day
Twins	7-8 lbs	0.5 - 0.75 lb/day
Triplets	6-7 lbs	0.5 - 0.75 lb/day



FLAG: Weight loss exceeding 10%
in the first 24 hours is a critical
warning sign.



Metabolic Crises: Toxemia vs. Hypocalcemia

Pregnancy Toxemia (Twin Lamb Disease)

- **Timing:** Late gestation.
(Highest risk: Fat ewes BCS >4).
- **Signs:** Sweet breath, lagging, stargazing, teeth grinding, tremors.
- **Treatment:** Propylene glycol orally. Severe cases require IV dextrose / C-section.

Hypocalcemia (Milk Fever)

- **Timing:** Late pregnancy or early lactation.
- **Signs:** Stiff gait -> Weakness -> Recumbency -> Coma.
- **Treatment:** Sub-Q Calcium borogluconate 23%.



The Field Triage Rule

If unsure between the two, TREAT FOR BOTH SIMULTANEOUSLY.

Rapid improvement (within hours) = Hypocalcemia. Slow/no improvement = Toxemia (worse prognosis).



Post-Partum Physical Emergencies & Grafting

Emergency 1: Uterine Prolapse

Sign: Large mass with raised caruncles (“meatballs”) protruding from vulva.

ACTION: TRUE EMERGENCY. Call vet immediately.

Keep moist, apply granulated sugar to shrink tissue. Keep lamb nursing (oxytocin helps).

Emergency 2: Mastitis

Sign: Hot, firm, discolored udder. Stiff gait.

Action: Separate ewe. Strip milk 2-3x daily. Antibiotics.

CRITICAL: Supplement lambs immediately.

Orphan Grafting Index (Ranked by Success)

- | | |
|--|--|
| 1. Wet Graft: Rub birth fluids of natural lamb onto orphan (< 1 hr post-birth). | 3. Stockinette: Scent transfer via orthopedic sleeve. |
| 2. Skin Graft: Tie hide of dead lamb over orphan (90% success). | 4. Stanchion: Restrain ewe to force nursing 3-4x daily. |

Triage Summary: When to Call the Vet

RED ZONE: Call Immediately - Life Threatening

- Uterine prolapse.
- Dystocia unresolved after 30 minutes of intervention.
- Ringwomb not responding to 30 mins manual dilation.
- Recumbent ewe with Toxemia or unresponsive to Calcium.
- Signs of sepsis or ruptured uterus (suddenly stops straining, quiet).

YELLOW ZONE: Manage On-Farm, Monitor Closely

- Mild toxemia responding to propylene glycol.
- Corrected vaginal prolapse.
- Mild dystocia successfully repositioned.
- Mastitis caught early.
- Retained placenta (if >18h in healthy ewe).

CLOSING DIRECTIVE: Establish your vet relationship BEFORE lambing season. Your first call should not be at 3 AM. Know the expected cost of an emergency C-section (\$300 to \$800+) in advance so you can make triage decisions rapidly without hesitation.