

# CALF 911

## CALF VIGOR SCORING

### VISUAL APPEARANCE

<b>V</b>	Yellow Staining (Meconium)	Normal: no staining <b>3</b>	Slight: around anal/tail head area <b>2</b>	Moderate: extending over body <b>1</b>	Severe: fully covered <b>0</b>
	Tongue/Head	Normal: no swelling, tongue <b>3</b>	Tongue protruding but not swollen <b>2</b>	Tongue protruding and swollen <b>1</b>	Head and tongue swollen, tongue <b>0</b>

### INITIATION OF MOVEMENT

<b>I</b>	Calf Movement	Standing/walking 0-30 min. <b>3</b>	Attempts to stand 30 min. - 1.5 hr. <b>2</b>	Sitting upright (Sternal) 1.5 hr. - 3 hr. <b>1</b>	On side, no efforts to rise > 3 hr. <b>0</b>
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### GENERAL RESPONSIVENESS

<b>G</b>	Suckling Reflex	Strong <b>3</b>	Medium <b>2</b>	Weak <b>1</b>	No response <b>0</b>
	Head Shake (in response to straw in nose)	Shakes head vigorously <b>3</b>	Moves head away <b>2</b>	Twitches or flinches <b>1</b>	Does not respond <b>0</b>
	Tongue Pinch	Actively withdraws tongue <b>3</b>	Attempts to withdraw <b>2</b>	Twitches tongue <b>1</b>	Does not respond <b>0</b>
	Eye Reflex (after touching eyeball)		Actively blinks and closes eye <b>2</b>	Slow to blink <b>1</b>	Does not respond <b>0</b>

### OXYGENATION

<b>O</b>	Mucous Membrane Colour	Bright pink <b>3</b>	Light pink <b>2</b>	Brick red <b>1</b>	White/blue <b>0</b>
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### RATES

<b>R</b>	Heart Rate (bpm= beats per minute)	Normal: 90-160 bpm <b>2</b>	Rapid/irregular: >160 bpm <b>1</b>	Slow/absent: <90 bpm <b>0</b>
	<i>(To measure heart rate, put your hand on the calf's chest. Take pulse for 15 seconds and multiply by four.)</i>			
	Respiration (rrpm= respiratory rate per minute)	Normal: 40-70- rrpm <b>2</b>	Slow: <40 rrpm <b>1</b>	Fast: >70 rrpm <b>0</b>

#### CALF VIGOR SCORE:

Add the points above to establish score. Poor or marginal calves require early intervention.

**< 17 = Poor**  
**18-20 = Marginal**  
**21-22 = Good**  
**23-25 = Very Good**  
**26-27 = Excellent**

Adapted from the research of:



Intervention techniques are available at:  
[BeefResearch.ca/calf911](http://BeefResearch.ca/calf911)

Version: 01.2024



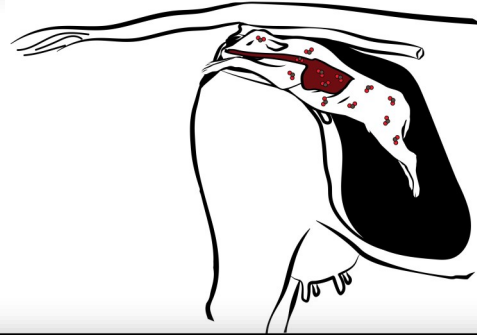
Scan for video


# CALF 911

## RESPIRATORY ACIDOSIS

### CAUSE

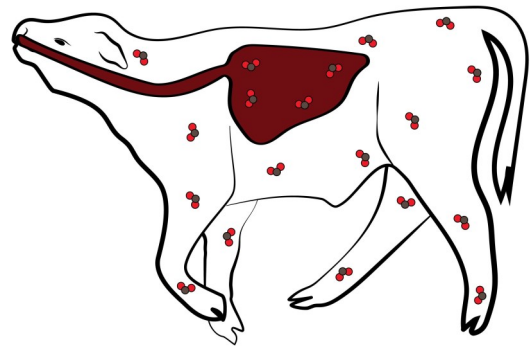
Respiratory acidosis is caused by a **delay** in stage two of the birthing process, in which the calf does not inhale or exhale while stuck in the birth canal.



 = Carbon dioxide (CO<sub>2</sub>)

### EFFECTS

- Gas exchange between mother and calf stops
- The calf's lungs cannot expand
- Oxygen cannot be taken in by the calf
- Carbon dioxide cannot be expired by the calf
- Carbon dioxide builds in the calf's system
- The calf's blood becomes acidic

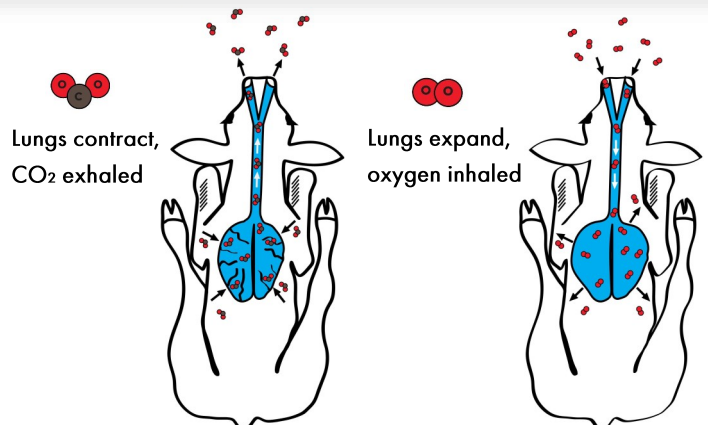


### SYMPTOMS

- Low VIGOR score
- Staggering
- Weakness
- "Dummy calf"
- Coma

### TREATMENT

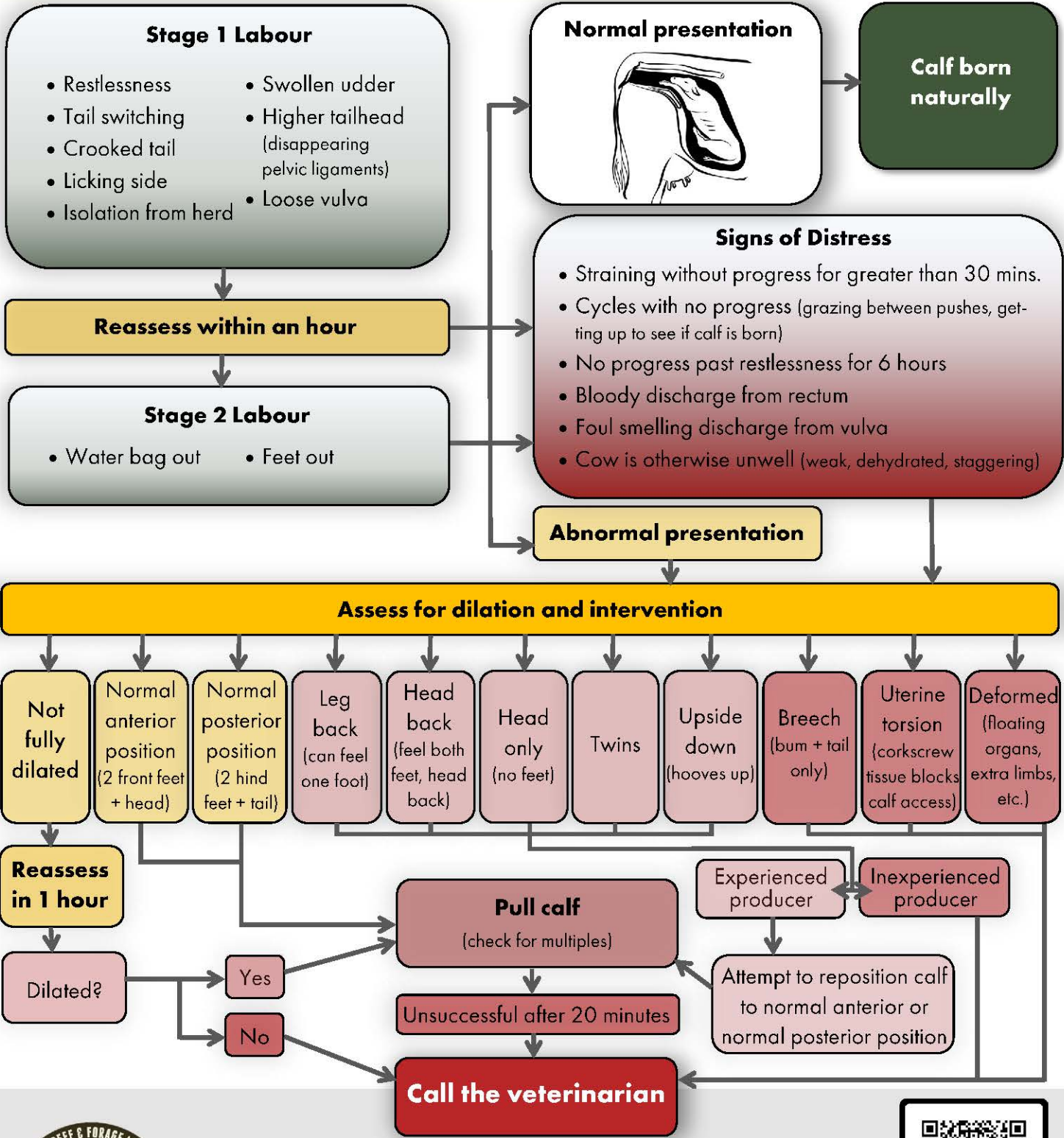
- Place in recovery position for quickest return to normal respiration
- Resuscitate with a CPR mask and bag
- Consult with a veterinarian for intravenous electrolyte treatment



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## CALVING DECISION TREE

When should you call the vet?



[www.BeefResearch.ca](http://www.BeefResearch.ca)

[www.MBFI.ca](http://www.MBFI.ca)

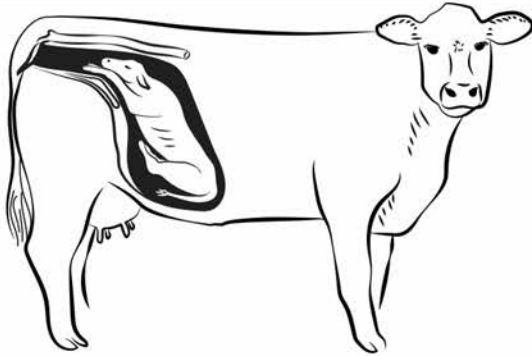
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# CALF 911

## CALVING PRESENTATIONS

### ANTERIOR (NORMAL) PRESENTATION



NOT DILATED

POSTERIOR  
PRESENTATION

ONE LEG BACK  
PRESENTATION



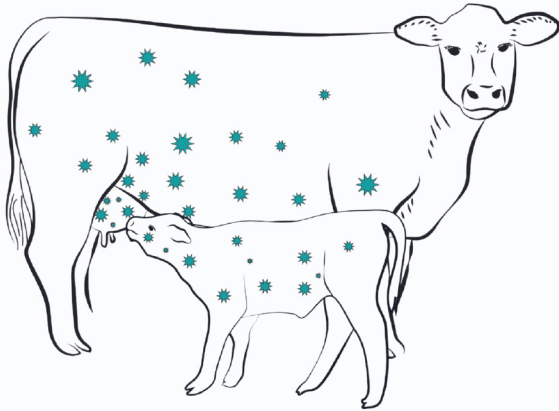
HEAD BACK  
PRESENTATION

BREECH  
PRESENTATION



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## COLOSTRUM MANAGEMENT



## KNOW WHEN TO SUPPLEMENT

- Twins
- Weak calves
- Poor suckle reflex
- Difficult calvings
- Poor udder health
- Lack of maternal instincts

### DO

- ✓ Ensure the herd is up to date on vaccinations.
- ✓ Intervene early. The ideal intake is 2 litres of colostrum within the first 2 hours of life and another 2 litres in the next 8-12 hours.
- ✓ Give enough. Calves need a minimum of 100g of IgG in their first feeding. Ensure the replacer totals 100g, which may require more than one package.
- ✓ Collect your own colostrum. Fresh or frozen colostrum from your own farm is always best.

### DO NOT

- ✗ Do not give the wrong product. **Replacer** is meant to be used when no other sources of colostrum have been made available and must contain adequate levels of IgG. **Supplements** are meant to be added to a calf's diet that has already received some colostrum.
- ✗ Do not automatically tube feed. It is always better to try feeding via a nipple first, and if unsuccessful then move to tube feeding. Tube feeding places fluid directly into the rumen, which doesn't allow for maximum absorption of IgG and nutrients.
- ✗ Do not thaw frozen colostrum in the microwave, instead use a warm water bath.
- ✗ Do not bring in colostrum from another farm. Diseases not commonly found on your farm could be introduced by using raw colostrum products from other farms.

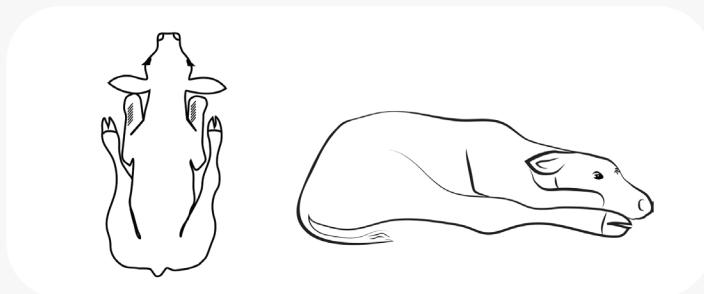


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## RECOVERY POSITION

### PLACEMENT

- ✓ Place the calf up on its sternum.
- ✓ Pull the front feet forward to allow the chest to expand.
- ✓ Pull the back legs up toward the calf's ears.



### PROCEDURE

- ✓ Rub the calf vigorously.
- ✓ Stimulate breathing by poking the nasal septum with a piece of straw.
- ✓ Squirt a few drops of cold water in the ear to cause them to gasp.



### REMEMBER

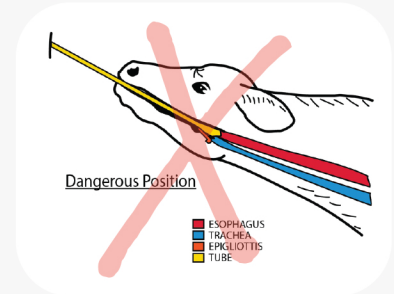
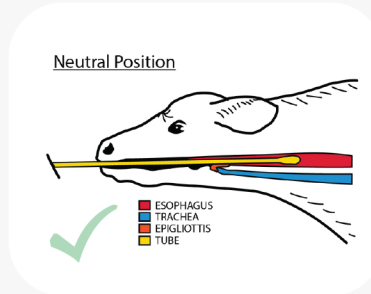
- ✗ DO NOT hang the calf upside down to drain fluid. This only empties the stomach and puts pressure on the diaphragm.



### POSITION

✓ Restrain the calf in a corner to maintain head control.

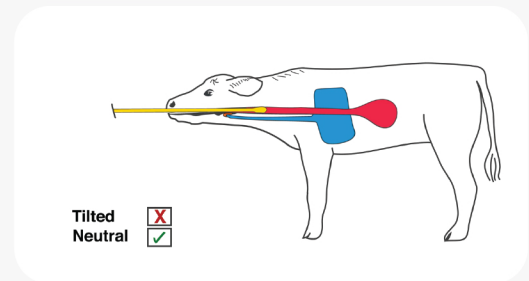
✓ Place the head in a neutral position.



### PLACEMENT

✓ Gently advance the tube. If there's resistance, pull it out and start again.

✓ Palpate the calf's neck. When the tube is in the correct position, you will feel two tube-like structures (trachea and esophagus).



### REMEMBER

✓ It's important to feed slowly. It can take up to 3 minutes for the stomach to fill.

✓ Ensure the fluids are body temperature (38°C/100°F).

✓ Before pulling the tube, kink and pull in one swift motion to ensure no fluid is inhaled.

✓ To ensure pathogens are not introduced to the herd, use separate feeders for sick and healthy animals.

✓ Clean the equipment thoroughly.



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## DEHYDRATION CHECKLIST

### GUIDELINES FOR ASSESSMENT OF DEHYDRATION IN CALVES

Dehydration Level	Attitude	Eyeball Recession	Skin Tent Duration
None (<5%)	Normal	None	<1 sec
<b>Mild</b> (6-8%)	Slightly Depressed	2-4 mm (1/8")	2-4 sec
<b>Moderate</b> (8-10%)	Depressed	4-6 mm (3/16")	4-6 sec
<b>Severe</b> (10-12%)	Comatose	6-8 mm (1/4")	>6 sec

Source: Geof Smith, DVM, MS, PhD, Dept. of Population Health & Pathobiology, North Carolina State University



### SKIN TENT

- ✓ Perform a skin-tent test by pinching the skin over the neck and gently pulling to make a tent. Release and count how many seconds it takes for the skin to return to normal.

### BEHAVIOUR

- ✓ Look for behaviour cues in the herd, such as a calf that is not stretching when rising. Watch for calves with drooping ears. A cow bawling for a calf or showing a full udder indicates the calf is not nursing. Watch for calves that appear lethargic or depressed.

### EYES

- ✓ To assess a calf for sunken eyes, look at the space between the lower eyelid and the eyeball. The wider the space, the more dehydrated the calf is.

### BALANCE

- ✓ Notice any calves that are staggering or have poor balance.

### TEMPERATURE

- ✓ Be aware of the link between dehydration and hypothermia. Normal temperature is 38-39°C.

### SUCKLE

- ✓ Pay attention to calves with a weak or non-rhythmic suckle reflex.

