



**Thoroughbred  
Breeding and  
Development Fund**

New York State Thoroughbred Breeding and  
Development Fund  
&  
New York Thoroughbred Breeders, Inc.

*Present*

New York Thoroughbred Breeding Industry Educational Series #1:

# Care of the Foaling Mare

December 4, 2015

# Section One: Pregnancy Day 1 to 10 Months

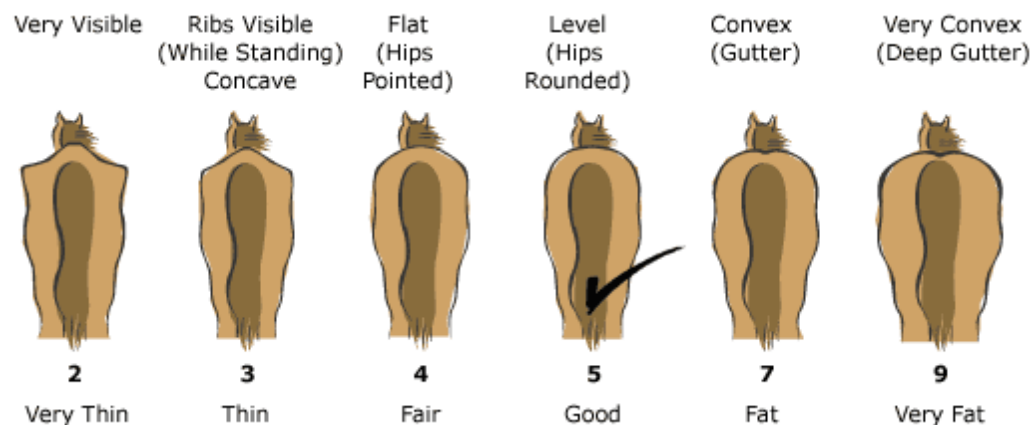


# Section One:

## Pregnancy Day 1 to 10 Months

### 1. Nutrition and Good Health

- a. Good dental care, body score (5-6), regular hoof care, protect population from disease
- b. Pasture management, testing soil and forage, good quality hay, add legume last 90 days
- c. Feed:
  - Commercial concentrate or custom mixed for broodmare (12-14% protein) OR quality straight feed (like oats) plus a commercial ration balancer
  - Maintain proper calcium : phosphorus ratio (1:1 - 2:1)
  - Provide vitamins and trace minerals – add salt blocks - one for minerals and one for CA/PHOS/Vitamins
- d) Special considerations- New York is selenium deficient
- e) Ration - post-weaning versus last trimester of gestation



# Section One:

## Pregnancy Day 1 to 10 Months

### 2. Deworming Mare - Parasites and Management To Minimize Exposure

- a. Programs - Both use diagnostic fecal sample
  - Rotational
  - Versus targeted deworming
- b. Dewormers: Fenbendazole or Oxibendazole, Pyrantel Pamoate, Moxidectrin, Ivermectin; the latter two can add Praziquantel to mixture for tapeworms
- c. Parasites of major concern:
  - Ascarids - can be passed to foal causing unthrifty appearance, impaction, intestinal rupture, death
  - Strongyles (large and small) - colic, foal diarrhea (Strongyloides westerli passed in milk), unthrifty
  - Tapeworms - colic, unthrifty
  - Pinworms and Bots



# Section One:

## Pregnancy Day 1 to 10 Months

### 3. Vaccines - Protect Health, Prevent Abortion, Give Foal Immunity

- a. Equine Herpes Virus - EHV-1 vaccine approved to prevent abortion at 5, 7, and 9 +/- 3 months
- b. Rotavirus A vaccine given at 8, 9, & 10 months to provide foal immunity via colostrum, foal diarrhea
- c. Importance of pre-foaling vaccines: given 4 to 6 weeks before due date to provide foal protection via colostrum. List to discuss with veterinarian includes: vaccines for Eastern and Western Encephalitis, West Nile Virus, Tetanus, Influenza (always), Potomac Horse Fever, Rabies (sometimes), Clostridium Botulinum (3 boosters 1<sup>st</sup> year, then annual pre-foaling) if shipping outside NY, Strangles if have risk factors.
- d. All year protection - some vaccines only good for 6 months like EW, FLU, PHF



# Section One:

## Pregnancy Day 1 to 10 Months

### 4. Lights

- a. December - first mares should be under lights, 10-12 foot candles and 16 hour light, to adjust Estrus Cycle. Newer method is 2 hours pulse light 9 hours after dark, or 2 and 1/2 hours after sunset on advancing schedule. Use a timer.
- b. New mobile blue light mask- "Equilume" are battery operated automatic blue light masks, they need a one time activation at 1600 hours, weekly check required.



"Equilume" Mask

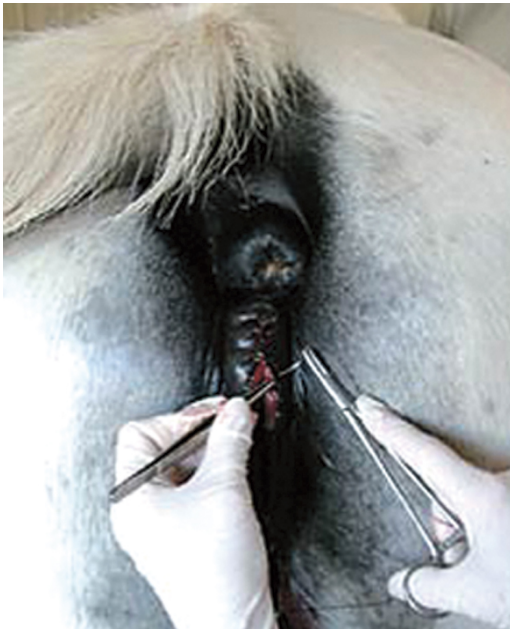
# Section One:

## Pregnancy Day 1 to 10 Months

### 5. Caslick, Pregnancy Checks & Regumate

- a. Pregnancy Checks: 15 days twins, 27 days, 36 days, 60 days; optional progesterone and estrogen check after 100 - 120 days; fetal sexing between 60-75 days
- b. Progesterone check when pronounced in foal - Regumate daily if low

### 6. Daily Observation for Abnormal - Caslick, Vulva Discharge, Stocked Up, Developing Bag (Udder) Early



Caslick



Vulva discharge

# Section Two: 10 Months to Foaling





# Section Two: 10 Months to Foaling

## 1. Preparing the Stall

- a. Timing, stall size, clean, quiet, bedding, warmth

## 2. Foaling Kit & Supplies

- a. Basic kit
- b. Advanced: oxygen, heat lamps....



# Section Two:

## 10 Months to Foaling

### 3. Normal Signs of Impending Parturition

- a. Establishing foaling date - gestation about 11 months, 7 days (normal 340-360 days)
- b. Mammary gland development
- c. Relaxation of Sacrosciatic ligaments on either side of tail
- d. Behavior change- seeking solitude; tail lifting, stretching, urinating frequently...
- e. Waxing
- f. Variations with seasons and mare status; maiden versus multiparous

### 4. Night Watch

- a. When to start
- b. Tools to help

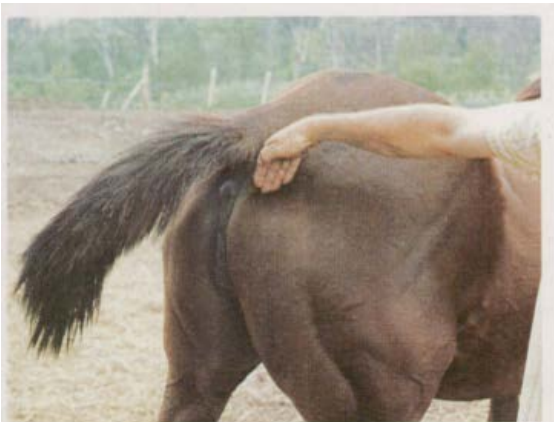


FIGURE 2. Palpation for softening of sacrosciatic ligaments on a mare with a relaxed, elongated vulva.



waxing

# Section Two: 10 Months to Foaling

## 5. Mare Preparation

- a. Opening Caslick plus/minus blood test for Qa antibodies- Neonatal Isoerythrolysis prevention
- b. Discontinue Regumate if on
- c. Tail wrap

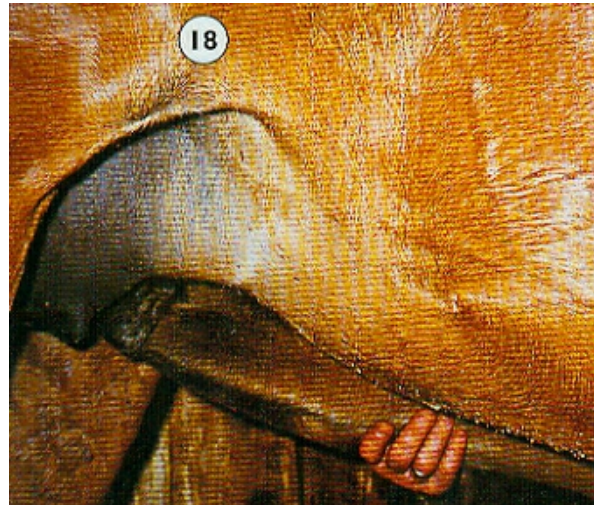


# Section Two:

## 10 Months to Foaling

### 6. Daily Observation for Changes in Condition that can Signal a Problem

- a. Premature udder development or discharge
- b. Discharge from the vulva
- c. Legs stocked up
- d. Udder edema with a rapidly over enlarging abdomen
- e. Mare does not foal or shows no signs of impending foaling and is significantly past due date
- f. Any health problem - off feed, fever, impaction, colic



Udder edema

# Section Three: Foaling the Mare



# Section Three: Foaling the Mare

## 1. Three Stages: First Stage Of Parturition

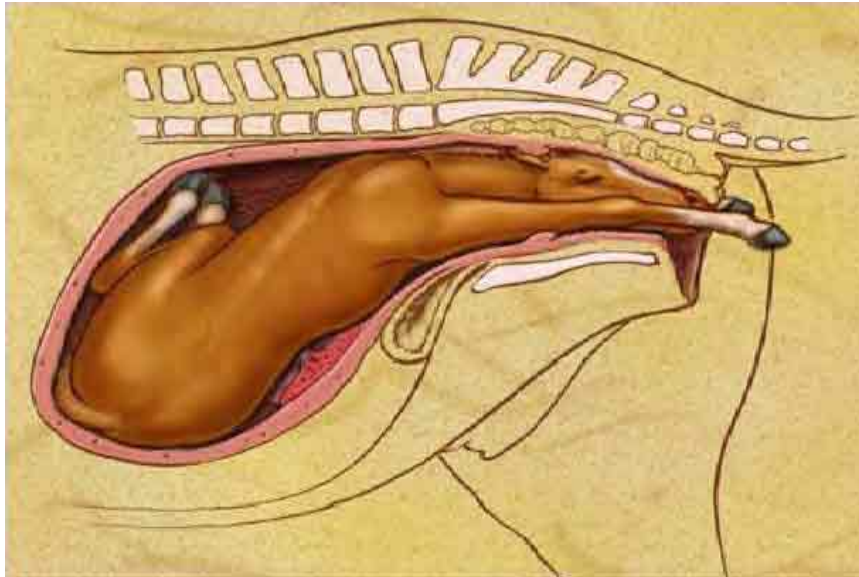
- a. Stage 1: POSITIONING THE FETUS, DIALATING CERVIX: Can start as early as 5 days out, and see mare's behavior change as fetus is repositioned to exit, and uterine contractions dilate cervix. Stage can start and stop.
- b. Stage 2: ACTIVE DELIVERY OF FOAL: "water breaks", Fetus enters birth canal, bluish white membrane covering fetus appears at the vulva. Powerful uterine contractions ensue to expel the foal usually within 20 minutes.
- c. Stage 3: PASSAGE OF FETAL MEMBRANES/PLACENTA: timeframe - 30 minutes to 2 hours.



# Section Three: Foaling the Mare

## 2. Normal Birth Presentation and Mare Behavior During Stage 2

- a. Mare behavior and position of mare - recumbent versus standing
- b. What is “normal presentation” and how to assess



# Section Three: Foaling the Mare

## 3. Assisting with Delivery for Normal Presentation

- a. Gentle traction with contraction, and other tips
- b. After delivery - keep mare recumbent and quiet so transfer of blood through intact umbilical cord is completed





# Section Three: Foaling the Mare

## 4. Foal Care Immediate Post Foaling

- a. What is normal behavior for foal? Guide lines: Heart Rate 80-100bpm, Respiratory rate-50-60 first 15 minutes, then 20-40, sternal with suckle reflex by 20 minutes, bright, trying to stand
- b. Dry, stimulate foal, dip navel, let the maternal bond happen



Dip navel



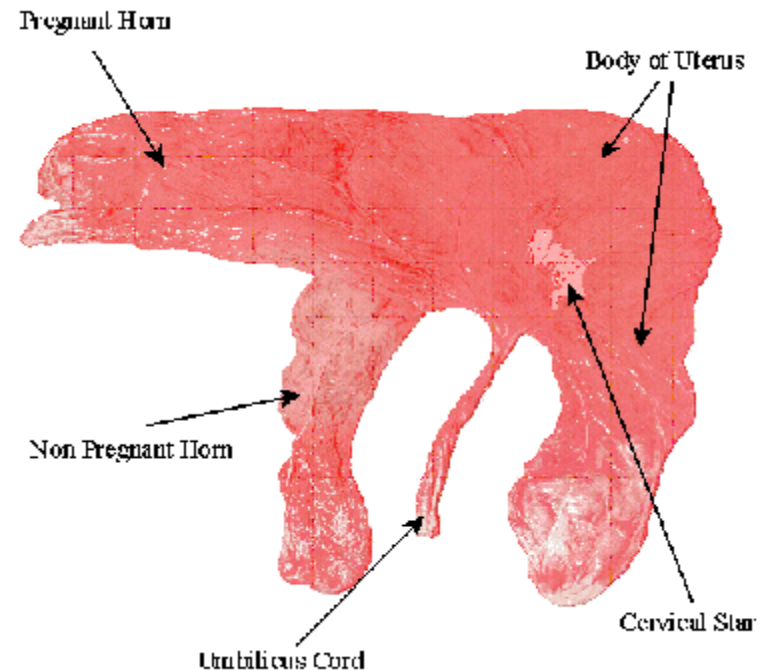
# Section Three: Foaling the Mare

## 5. Normal Mare Behavior Immediate Post Foaling and During Stage 3: Passing Placenta

- a. Post foaling recumbency, mild colic, maternal behavior
- b. Passing the placenta and examining



FIGURE 4. The placenta should be spread out and checked for completeness, being sure that the tips of both horns are intact.



# Section Three: Foaling the Mare

## 6. Abnormal Foaling Issues And What To Do

- a. Red bag presentation
- b. Abnormal presentation, dystocia
- c. Retained placenta



Red bag presentation

# Section Four: First 48 Hours Post Foaling



# Section Four:

## First 48 Hours Post Foaling

### 1. Normal Foal Care and Observation

- a. Standing - tips and time frame - ideally 2 hours
- b. Nursing - tips and time frame, ideally 1-3 hours until nurse, nurse 3-5 times/ hour to start
- c. Importance of “first milk”, colostrum, IgG test - 12 to 24 hour time frame
- d. Maintaining body temperature - “keep me warm” (Rectal Temp 99-102 degrees F for first 4 days)
- e. Care of Navel
- f. Urination within first 8 hours
- g. Passing Meconium first 12 hours, enemas
- h. Vet exam between 12-24 hours
- i. Turn out considerations



# Section Four:

## First 48 Hours Post Foaling

### 2. Mare Care and Observation

- a. Mare should be comfortable, maternal, and not aggressive – washing, protecting & positioning foal to nurse
- b. Nutritional considerations, decrease roughage and bran mash, provide enough calories for demands
- c. Cleaning up mare post foaling and minimize stress to reduce chance of hemorrhage post foaling- no twitch
- d. Monitor health - manure passage, urination, temperature, feet, watch for colic, discomfort, weakness
- e. Turn out tips and schedule
- f. Vet exam and suturing - vulvar tears and caslick
- g. Monitor milk production and make sure mare allowing to nurse - sore udder



# Section Four:

## First 48 Hours Post Foaling

### 3. Abnormal Conditions - Foal

- a. Umbilical hernia
- b. Premature - less than 340 days - appearance
- c. Weak or sick foal - unable to suckle, unable to stand, unable to find udder, gums abnormal color
- d. Trauma in birth canal - fractured ribs, hemorrhages in sclera
- e. Tendon contraction - degrees of severity
- f. Meconium impaction
- g. Ruptured Bladder
- h. Neonatal Isoertholysis - rupturing red blood cells
- i. Down in pasterns and “wind swept”
- j. Immature hocks – not fully mineralized



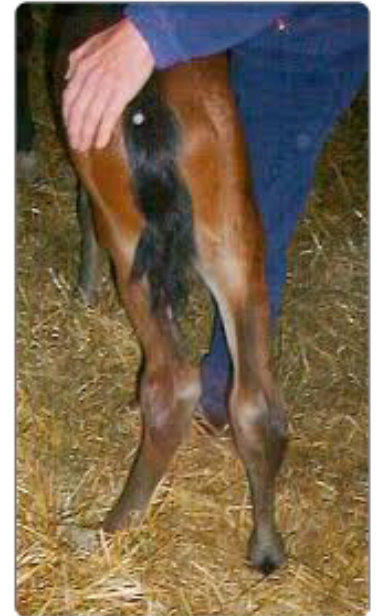
Umbilical hernia



Down in pasterns



Flexural deformity



“Wind swept”