

# SHIRE HORSE SOCIETY



## FOALING NOTES FOR MARE OWNERS

## SIGNS OF FOALING

### **1. When is the foal due?**

The average gestation is between 335 and 342 days. However foals can be born as early as 320 days and as late as 365 days without any adverse effect on the foal or the mare. Use dates of service/insemination/scans to assist in calculating the approximate due date.

### **2. Physical changes**

As the mare gets close to her due date, monitor her carefully and daily for the following:

- Relaxation of the tail head. This can be difficult to spot in overweight, well-muscled or maiden mares.
- Relaxation and elongation of the vulva. This can be affected by age and previous foalings.
- Enlargement of the mammary gland. Changes usually begin approximately 1 month before foaling with the most significant change in the last 2 weeks. This varies with individuals.
- Waxing up – a common term for waxy droplets on the ends of the teats. Usually occurs between 1 and 4 days from foaling but some mares can be dripping colostrum for several days. Running of milk well before the due date can be a sign of placentitis and required immediate veterinary attention. Running of milk close to foaling may be normal for some mares but their foals may need colostrum supplementation.



**RELAXATION OF THE VULVA**



**ENLARGEMENT OF THE MAMMARY GLAND**



**WAXING UP**

## STAGES OF FOALING

### **Stage 1 – Ready Position**

The foal moves within the uterus to the "ready position" - lying on its abdomen facing the rear of the mare, with its head between its front legs. The mare may look like she has colic - getting up and down, urinating, and restless. This is associated with uterine contractions. This stage can last anywhere from 20 minutes to several hours. Do not disturb the mare during this time, as she can postpone delivery of the foal if she feels nervous or uncomfortable. Stage 1 ends when the mare's waters break.

### **Stage 2 - Delivery**

The mare will actively strain, she is normally lying on her side but not always. Regardless of mares position the foal should be delivered within 15-45mins. The amniotic sac (white shiny membrane) protrudes first, the foal should appear with front feet one ahead of the other, soles downwards with the nose on top of the legs. When the head is visible the mare will push hard until the shoulders are out, quickly followed by the hindquarters. IF THE PROGRESS IS SLOW, THE POSITION OF THE FOAL IS INCORRECT OR THE MARE DOES NOT STRAIN FOR MORE THAN 10 MINUTES, CALL A VET IMMEDIATELY.

When the foal has been delivered, quickly and quietly remove the membranes from the nose and muzzle, check the foal is breathing and dip the umbilicus in Chlorohexidine (0.2%) solution (or iodine), then leave the mare and foal on their own to bond. The foal should start to struggle to get into sternal recumbency within a few minutes of delivery, should be standing within 1 hour and drinking within 2 hours. Stage 2 ends when the foal is delivered.



**NORMAL PRESENTATION**



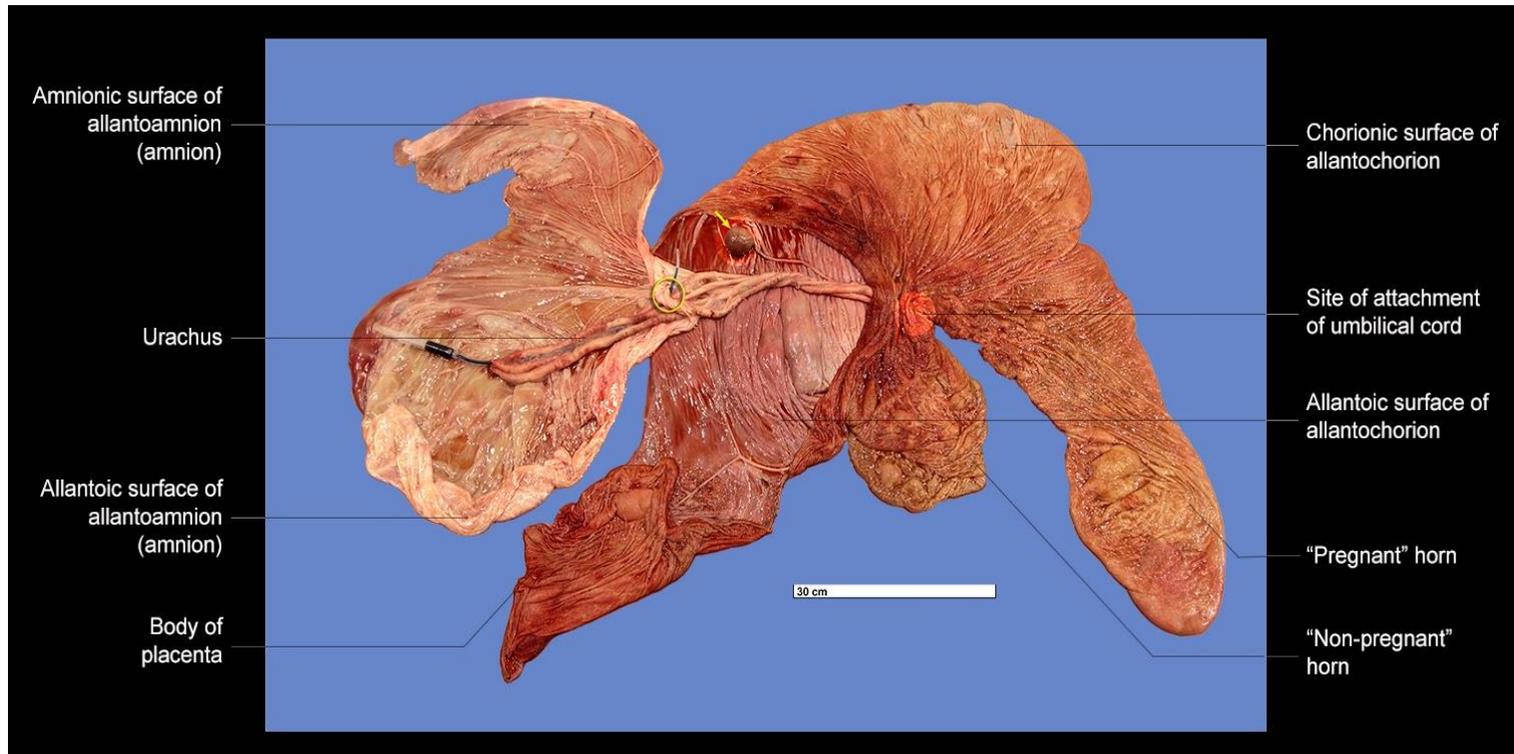
**“RED BAG” PRESENTATION**  
(see EMERGENCY page 9)

### **Stage 3 - Passing of placenta**

The placenta will be hanging from the mare and still attached to the uterus. Care should be taken to tie it in a knot or up with twine to keep the mare from standing on it. The placenta is usually passed within 30 minutes of the delivery, and should be passed within three hours. The mare may show signs of mild colic. Once the placenta has been passed, check it is complete and place in a covered bucket or plastic bag for the vet to examine later.

## THE PLACENTA

- Should be delivered within 3 hours of foaling. If not delivered within this time SEEK VETERINARY ATTENTION. The mare will need assistance.
- Should be delivered in its entirety. \* CHECK for tears and holes. \*CHECK tips of both horns. If any piece is missing SEEK VETERINARY ATTENTION
- Should be stored in a clean plastic bag for inspection by a vet



## WHAT SHOULD BE IN YOUR FOALING KIT?

- Head collar and rope
- Tail bandage (to keep mare's tail out of the way)
- Box of latex or plastic gloves (hygiene)
- Flashlight (if foaling at night)
- Clean towels (to dry foal if needed)
- Twine/umbilical tape (to clamp the cord if needed, and to tie up the placenta to prevent internal damage to the mare)
- Scissors
- Dilute Chlorohexidine (0.2%) solution in a small jar for dipping umbilicus (kills more bacteria than iodine, effects last longer and less likely to cause skin irritation)
- Bucket or plastic bag for placenta (store for examination by vet)
- Fleet Enema (to assist passing of meconium if necessary)
- Stop watch (for timing foal parameters)
- Mobile phone and vet's phone number (in case an emergency arises).

## "EMERGENCY!" - WHEN TO CALL YOUR VET

- At any time if there is cause for concern or just for advice.

### EMERGENCY SITUATIONS:

- **Premature placental separation** – Known as "red bag" - a red velvet- like structure appears at the vulva lips when the mare starts to push. It is **essential** that no time is wasted in opening this bag with a pair of scissors and assist the delivery. The placenta is the source of oxygen and nutrients supplying the foal, if it detaches and presents first the foal is left without oxygen and will be severely compromised or will die.
- **Mal-presentation** – Abnormal position of the foal that will restrict its delivery eg head back, leg back, breech (hind legs first) etc. It is essential to monitor progress very closely and call the vet immediately if the two front feet and nose can't be seen within 10mins of the waters breaking.
- **Colic** - Can be due to uterine rupture, haemorrhage, gastrointestinal insult or part of the natural process stage III labour. It's best to check!

## EMERGENCY SITUATIONS cont. :

- **Haemorrhage** - The explosive nature of delivery sometimes causes the uterine artery to rupture or tear. The mare will often show signs of colic, weakness, pale gums and shaking. These signs can be mistaken for the mare being weak and exhausted after labour. If unsure, call a vet.
- **Uterine rupture**- Sometimes the sharp feet of the foal can cause a tear in the wall of the uterus. If this is extensive, it can lead to contamination of the abdominal cavity. The mare will show signs of depression and mild colic usually about 12-24 hours after delivery.
- There are many other conditions associated with foaling which become medical emergencies that need veterinary input. Be prepared to call a vet if there is any cause for worry.

## NEWBORN FOAL PARAMETERS

Normal parameters = Green

Cause for concern = Yellow

Abnormal = Red

If Parameters fall in yellow or red zones SEEK VETERINARY ASSISTANCE

<u>SITTING IN STERNAL POSITION</u>	<u>SUCK REFLEX</u>	<u>TIME TO STANDING</u>	<u>TIME TO SUCKING</u>
<u>(minutes)</u>	<u>(minutes)</u>	<u>(hours)</u>	<u>(hours)</u>
5	5 – 10	0 – 1	0 - 2
5 – 10	10 – 15	1 – 2	3-4
More than 10	More than 15	More than 2	More than 4

Meconium (foal's first faeces) should be passed within a few hours. If delayed veterinary assistance should be sought.

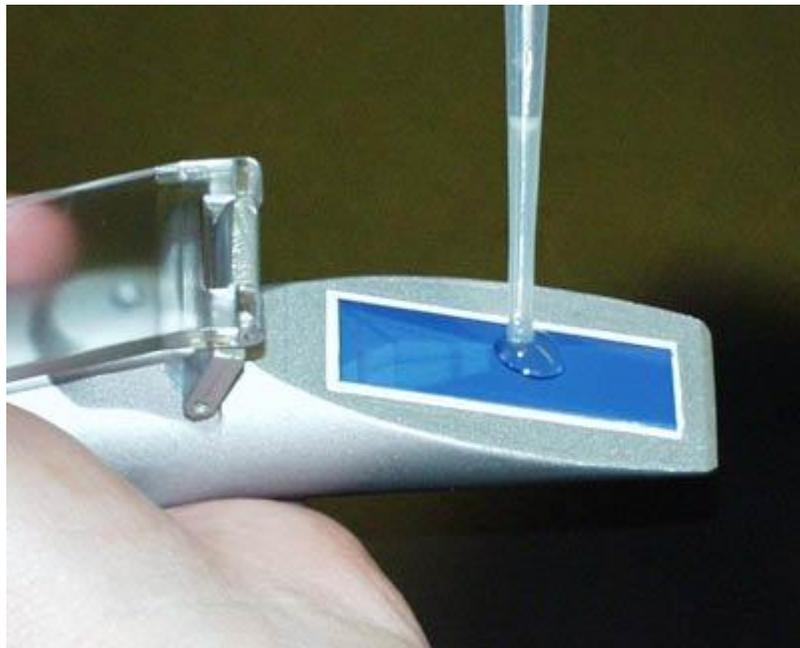
## COLOSTRUM

- This first milk is rich in antibodies which protect the foal from bacterial infections until its own immune system develops (8 – 10 weeks of age).
- Colostrum is thick, yellow and sticky and its drips can be seen on the teats just before foaling (waxing up).
- Colostrum is only produced by the mare just before foaling and for 24 hours following foaling.
- Colostrum absorption is at its peak in the first 8 – 12 hours after birth, then declines up to 24 hours after birth. After this time colostrum cannot be absorbed by the foal.
- Colostrum volume and quality can be lost if the mare runs milk prior to foaling.
- Colostrum intake can be reduced by poor sucking, late standing up or mare rejecting foal.

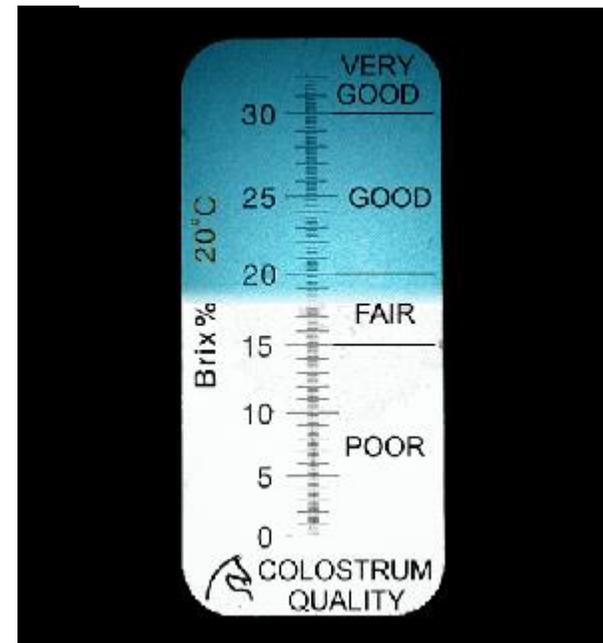
## BRIX REFRACTOMETER

A useful and inexpensive way to check colostrum quality.

- Place a drop of colostrum on the refractometer
- Replace the cover
- Hold the refractometer up to the light
- Read the value from the scale



Brix (%)	IgG Conc. (g/L)	Colostrum Quality
< 15	0 - 28	Poor
15 - 20	28 - 50	Fair
20 - 30	50 - 80	Good
> 30	> 80	Very Good



## INADEQUATE COLOSTRUM

If the colostrum is of insufficient quality or quantity it can be supplemented by:

- Good quality donor colostrum given by bottle or by a vet by stomach tube during the first few hours after birth.
- Plasma transfusion given by a vet the day after birth.

A blood sample taken at least 18 hours after birth to measure antibody levels will indicate if the foal has absorbed enough antibodies and if there are any potential problems. This is particularly important if the foaling was difficult.

## **POST FOALING VET CHECK**

Even when foaling goes smoothly a veterinary check of both mare and foal is recommended.

The vet can check for:

- Health and wellbeing of both mare and foal.
- Complete expulsion of the placenta/removal of any that has been retained.
- Tearing of the vulva and internal injuries to the mare which may result in infections and possibly damage her future breeding career.
- Injuries and infections of the foal, in particular, umbilical and urinary problems, colostrum intake, normal pulse, temperature and respiration rates, signs of inflammation of the joints.

## RETAINED MECONIUM

Meconium is the first faeces passed by the foal and is usually seen within the first few hours after birth.

In some foals, especially in colts, the meconium is retained causing constipation and this can occur up to 48 hours after birth.

Affected foals will strain to pass faeces with the tail held up and will usually stop suckling.

Treatment consists of careful administration of an enema such as Fleet enema or a soapy water enema given by a vet.

## **LOSS OF MARE OR FOAL**

Should things go terribly wrong and either the mare or the foal is lost:

Contact:



## **National Foaling Bank**

Meretown Stud, Newport, Shropshire TF10 8BX

Telephone 01952 811234 Fax 01952 811202

Miss Johanna E. Vardon MBE

---

**[www.nationalfoalingbank.com](http://www.nationalfoalingbank.com) (mobile 07836 234333)**

**24 hour service**

There may be an orphan foal who needs a foster mare

OR

There may be a mare who can foster your foal

Alternatively contact the Shire Horse Society 01536 771611 [info@shire-horse.org.uk](mailto:info@shire-horse.org.uk)

## FEEDING THE FOAL

If in good condition and properly fed the mare's milk will supply all the nutrients the foal needs in the first few weeks of life.

The foal should suckle many times during the day. Observe the mare's udder. Distension of the udder or running of milk could indicate that the foal is not suckling properly and may need assistance and /or supplementary feeding.

Milk nutrients are most concentrated during the first 8 weeks after birth, then begin to decline. By this time the foal should be nibbling at grass, the mare's feed or its own creep feed. (Some foals will do this a little from the first few days after birth). Creep feed should contain 14 -16% crude protein, 0.7 – 0.9% calcium and 0.5 – 0.6 phosphorus.

By 4 months of age the foal will be eating ½ to 1 kg feed per 100kg body weight.

By the time of weaning the foal will need 1 – ½ kg feed per 100kg body weight to include good quality grass and/or forage.

## **FOAL FOOT CARE**

Foal hooves grow much quicker than those of adult horses and can easily grow out of shape without regular attention from a farrier at 6 week intervals starting at 4 weeks of age.

Foals must be well handled and stood up alongside a wall if necessary to help them keep their balance. One handler at the head and another at the hindquarters can be helpful in steadying them. Walk the foal on a level surface so the farrier can assess foot and limb balance.

Some foals are born with a degree of “deformity” in the lower limbs. Usually this is due to softness of the tissues and will correct itself naturally in a few days as the foal strengthens.

Severe and/or sustained deformity will need additional assistance from a vet and farrier.

Foals born with correct feet can quickly develop deformities as they grow older, if careful and appropriate foot trimming is not carried out regularly.