



PREPARATION FOR FOALING

Having a foal is an exciting time and most mares give birth peacefully without any outside help; however, if things do start to go wrong it is an emergency and can be fatal for the mare and foal. In order to give mare and foal the best chances it is important to be prepared, to know what is normal and what to do in an emergency.

Normal gestation period varies from 320-360 days. The foal matures in the last 2-3 days of gestation and there is no 100% reliable method of determining if this has occurred. Artificial induction before foetal maturation takes place, considerably decreases the foal's survival chance and is only carried out in very specific circumstances.

In order to ensure foaling goes as smoothly as possible and you are prepared for emergencies:

- Read the following article which gives details of preparation for foaling, normal foaling and some emergencies.
- Have the vet's phone number to hand
- Ring the vet when you think your mare is close to foaling- this allows us to be prepared in case of an emergency
- Have transport available in case your mare or foal needs to be moved to a hospital in an emergency

WHAT TO LOOK OUT FOR IN LATE PREGNANCY

Pre-pubic tendon rupture: Due to the excess weight within the abdomen the body wall or pre-pubic tendon can tear. When this happens, the mare may appear colicky, have swelling under the abdomen which she resents being touched and the udder may appear to have moved forwards.

The treatment is rest and anti-inflammatories; however, she may need an assisted delivery or caesarean section as she does not have the strength to give birth. **Further pregnancy puts the mare's welfare at risk.**

Early lactation: More than 2 weeks before the foal is born. This may be a sign of impending abortion or placentitis and therefore your vet should be contacted. The running milk should be collected and frozen, to give the foal when it is born, as this is likely to be colostrum which is essential for the foal's immunity.



WHAT TO DO IF YOUR MARE RUNS MILK EARLY

Phone the vet for advice

- Collect the colostrum in a clean container and freeze. This can be defrosted and carefully fed to the foal after birth
- Make arrangements for alternative colostrum source - the vet will advise
- After the foal is born, try to ensure adequate colostrum
- Test the foal at 24 hrs. old for IgG - this is a quick and simple blood test that the vet will take at the yard and will determine whether the foal has received enough colostrum

Lack of mammary gland enlargement and lack of milk: Mammary gland development usually becomes apparent a couple of weeks before foaling and a waxy yellow secretion develops. Maiden mares may not develop this until after foaling. If the mare is not showing signs of udder development contact your vet to arrange an alternative source of colostrum. Post foaling your vet may give oxytocin to stimulate milk let-down.

Mastitis: Mastitis is an uncommon condition in a mare. It is characterized by a hard, enlarged, painful and hot udder. The mare may also show hind limb lameness and may have a high temperature, which may make her dull and inappetent.

PREPARATION FOR FOALING

Foaling box: The mare should be moved to a foaling stud or a foaling box 4 - 6 weeks before she is due to foal. This gives her time to settle and ensures that the mare can build immunity to disease producing organisms in the new environment. She will produce protective antibodies, which are passed onto the foal in the colostrum.

The foaling box should ideally be a warm (25°C), dry, 5m x 5m (16ft x 16ft). A clean, deep bed of good quality straw should be provided. Shavings are not thought to be as good as they can block the nostrils of a new-born foal. A power point and a means of providing a sick foal with warmth should be available. CCTV camera is very useful or if not a window so that the mare can be observed.

Removal of Caslicks: If the mare is stitched at the time of breeding this must be opened 1-2 weeks before foaling under local anaesthetic.



Basic Foaling equipment:

- Clean towels ready to dry the foal
- Lubrication if there is a problem foaling (lubigel)
- Disinfectant (e.g. dilute iodine solution) to dip the foal's navel in immediately after birth
- Thermometer
- Access to hot water
- Clean protective clothing including wellingtons
- A tail bandage for the mare
- Gloves
- Scissors

Notify your vet: Make sure that your vet knows that you have a mare expecting a foal and when it is due so that should you require some assistance they can be prepared for any eventuality. If you are uncertain about any part of the foaling process call your vet for help or advice **before** the foaling date.

Signs of impending foaling: As the foaling date approaches, the mare should be kept under close observation including at night. The observer should be familiar with the course of a normal foaling and call the vet if a problem occurs.

- Mammary development
- **Vulval relaxation:** Shortly before birth, the vulva lengthens and appears slightly swollen. Softening of the rump and tail head muscles can also be seen.
- The mare may separate from the rest of the herd, act nervous or go off her food.

FOALING

First stage labour: Lasts 30 minutes to 4 hours: Discomfort from uterine contractions, similar to colic.

- sweating
- restlessness
- pawing the ground
- looking round at the flanks
- lying down and getting up again and rolling - this is very important in helping the foal to reposition itself
- milk may leak from the teats



Second stage labour: 20 minutes:

- Membranes rupture and a large quantity of clear, pale yellowish fluid is released. This is the allantoic fluid.
- Most mares then lie on their sides and begin to strain. If the mare has a sutured vulva (following a caslick's procedure), which has not already been opened, it is **vital** that it is cut at this stage.
- After 5-10 minutes, a white membrane called the amnion appears between the vulval lips. In a normal foaling the front feet are delivered first, closely followed by the muzzle. The mare continues to strain vigorously until the foal's hips have been delivered. She will then stop straining but stay lying down for up to 20 minutes.
- Do not disturb her especially for the first few minutes after foaling as blood is still passing from the placenta to the foal. It is quite normal for the foal's hind limbs to remain inside the vagina and unless the membranes are obstructing the foal's nostrils no interference is necessary.
- The umbilical cord breaks when the mare stands or the foal struggles to its feet.

Third stage labour: Placental expulsion- usually within 1 hour. If not delivered after 2 hours call the vet.

FOALING EMERGENCIES

RING VET IMMEDIATELY

- Red bag presentation- a red velvety bag appears at the vulva
- Recto-vaginal injury – foal's leg through anus
- Dystocia- difficulty giving birth/ taking longer than expected
- Uterine inertia- ineffective uterine contractions
- Vaginal laceration and herniation of intestine

FOLLOWING THE SAFE DELIVERY OF A FOAL THE FOLLOWING CHECKS SHOULD BE MADE

The foal: The foal should stand within 1 hour and suck vigorously within 2 hours then approximately 5 times an hour for the first few days. If this does not occur or there is any other cause for concern the vet should be called.

The importance of colostrum: Colostrum is the thick, yellow liquid in the udder when the foal is born. It contains antibodies that provide protection against infection and must be sucked by the foal within the first few hours of life. If the mare runs milk prior to foaling this essential protection is lost. Arrangements must be made to protect the foal in other ways. Contact your vet for advice.



Veterinary check - 24 hours Post Foaling Check: A veterinary check of the new-born foal and mare is recommended. Any problems and weaknesses can then be dealt with at once. Things the vet may check include:

Foal:

- that the foal has a strong suck reflex, full tummy and is feeding well
- IgG levels via a blood test - this is vital if there are any concerns that the foal may not have received adequate colostrum
- the umbilicus and dip with dilute iodine solution
- identify dummy foal
- identify any congenital flexural or angular limb deformities
- identify any other congenital problems e.g. cleft palate, congenital cataracts
- identify any umbilical or scrotal hernias
- the vet may choose to give the foal a tetanus antitoxin and antibiotic injection
- a 'fleet' foal enema may be given to ensure meconium has been passed

Mare:

- check the udder to make sure the mare has plenty of milk
- check the placenta to make sure all is passed intact
- check the vulva and vagina for tears that may require suturing
- check the mare is not bleeding

POST FOALING COMPLICATIONS

Retained Placenta: The placenta should be passed intact between 30 minutes and 3 hours after the foal is delivered. If the placenta has not been passed by 2-3 hours then it is retained and is classed as a true equine emergency. Please call your vet immediately.

Treatment: It is imperative that 100% of the placenta is removed. Even a small retained piece can result in serious complications. Bacterial multiplication within the uterus can quickly lead to septicaemia and endotoxaemia with a potentially fatal result. Severe laminitis is a possible sequel. Treatment is carried out by the vet. **No attempt should be made to manually pull the placenta.** This can result in serious complications such as uterine prolapse and tearing of the uterine arteries.

What the owner can do:

- tie the hanging placenta into a ball just above the hocks - this prevents them from becoming torn and contaminated
- gentle walking exercise may be helpful

What the vet will do:

- Oxytocin injections will be given - this stimulates uterine contractions
- the uterus can be infused with fluid - this often promotes expulsion of the membranes, together with any uterine contaminants



- manual removal may be attempted by a vet who will take great care not to tear the placenta and leave a piece inside the mare

If the mare retains her membranes longer than six hours, **urgent veterinary treatment is required**. If she develops a temperature and becomes obviously ill she may need to be hospitalised. The uterus is flushed at regular intervals, intravenous fluids are administered, oxytocin, antibiotics and anti-endotoxic drugs are given and prophylactic laminitis treatment may be given.

Remember to note the time that the mare foals. If the placenta is passed, lay it out on the floor and check it is fully intact- call the vet if you are at all unsure.

Prolapse of the uterus: Uncommon but more likely to occur if the mare had problems giving birth, uterine trauma or if the membranes are retained. It tends to occur within the first few hours after birth. Uterine prolapse can be potentially life threatening if complicated by rupture of the large uterine arteries, if the prolapsed uterus becomes contaminated, infected and ischaemic leading to shock, septicaemia and death. **This is a true equine emergency and your vet should be called immediately.**

Uterine tears: More likely if there are foaling problems and the delivery has to be assisted. Occasionally they can occur during an apparently normal delivery due to a foetal foot perforating the uterus.

Rupture of a major vessel: Haemorrhage is usually internal so no evidence of bleeding from the vagina is seen. The mare often sweats and shows signs of extreme pain or colic. The mucous membranes quickly become pale and the condition is often fatal. Treatment can be attempted but is often unsuccessful.

Vaginal Haemorrhage: Vaginal or cervical tears, trauma, forceful removal of retained placenta or varicose veins. Mild bleeding does not usually require treatment.

Rupture of the caecum: May occur due to the high abdominal pressures experienced during foaling.

Colon Torsion: The most common cause of colic in the first 2 months after foaling is a displaced and /or twisted large colon. This occurs as uterine involution is taken place and more room is suddenly available in the abdomen that the foal previously occupied. The large intestines float around in the new available space and often displace or twist. The mare will present with sudden onset, severe unrelenting colic which is not improved with painkillers. Immediate veterinary attention, rapid diagnosis and immediate surgery are essential if the mare is to survive. Fatality is as high as 72%.