



## Pregnant Mares and Foaling



Pregnancy in the horse is typically accepted as varying from 335-342 days however, on the odd occasion, can range from as little as 315 to over 400 days.

### Nutrition

The foal does the majority of its growing towards the end of gestation with 2/3rds of this occurring in the last 3 months. During the first 8 months of pregnancy the mares nutrition requirement for protein, calcium, sugars and phosphorus are no different to a non-pregnant individual.

In the last trimester, the mares requirements for these components increase faster than the need for energy and may require supplementation. In order to correct for this mares should be supplemented with a good quality vitamin and mineral mix.

Once lactation begins, the mares energy and protein needs increase further. Very good quality forage with a mineral/vitamin supplement can meet these needs but most mares should receive a grain/protein mix on top of this. After 3 months of lactation a mares milk production is usually declining and this is where we have to slowly start decreasing her supplemental feed intake before weaning (at 5-6 months) to help dry up her production of milk.

### Exercise

Most mares benefit from some form of exercise during pregnancy (even if it's a little walk down the lane everyday!) up until the last 3 months of pregnancy. Mares benefit from as much turnout as possible – preferably for a minimum of 6 hours a day.

### Worming

Parasite control relies on regular (twice weekly!) poo picking from fields, regular worm egg counts and strategic use of wormers. It is important to check the labels or consult your veterinary surgeon with regards to which wormer is suitable to administer to pregnant mares.

Worm egg counts (like all other non-pregnant individuals) should take place every 3 months with horses shedding >250epg being wormed appropriately. Mares should be given a dose of "ivermectin" within the last week of pregnancy to prevent transmission of worms to the foal.

### Vaccinations

**Vaccination of the pregnant mare has 3 aims:**

- Protection of the mare from disease
- Prevention of abortion
- Protection of the foal via transfer of appropriate antibodies via colostrum intake

To ensure maximal protection of the new-born foal it is recommended that pregnant mares are vaccinated for influenza and tetanus in the last 3-6 weeks of pregnancy.

Pregnant mares can also be vaccinated against Equine Herpes Virus 1 and 4 that can cause abortion. This vaccine is given at 5, 7 and 9 months of pregnancy. Rotavirus can also be vaccinated against in the 8th, 9th and 10th month of pregnancy.

Your vet can advise you which of these vaccinations may be beneficial in your situation and when they are best administered.

## Signs of impending parturition

A number of changes may signify the approach of foaling\*:

- Enlargement of the mares abdomen (in particular over the last 3 months of pregnancy).
- Mammary gland (udder) development and enlargement from 3-6 weeks before birth. This accelerates and is more notable in the 2 weeks before term. It will then begin to soften a few days prior to foaling coinciding with the accumulation of colostrum.
- The mares tail head may adopt a more elevated, flaccid appearance as the pelvic ligaments soften in preparation for the foal to pass through the birth canal. The vulva may appear slightly enlarged and softened. This typically occurs a few days prior to the onset of labour.
- Approximately 24-48 hours before birth drops of waxy, yellow mammary secretions are often visible appearing from the teats (termed "waxing") and dripping of milk may occur in the last few hours before foaling.

*\*It is important to note that mares vary widely in the signs they show varying from none to all.*

## Stages of parturition

Normal foaling is typically divided into 3 stages:

### Stage 1) Duration: 1-6 hours

- Uterine contractions begin
- Relaxation and dilation of the cervix
- Mares may appear uncomfortable and restless
- Colic signs (flank-watching, stretching, repeated lying down, pawing, circling, patchy sweating...)

*This phase may, however, go unnoticed!*

The progression from stage 1 to stage 2 is marked as being when the mare's water breaks as the foal passes through the birth canal and into the vagina.

### Stage 2) Duration: 20-30 minutes

- Abdominal contractions begin
- The mare often lies down (however may stand!)
- Delivery of the foal

The foal should appear at the vulval opening as two legs/hooves followed closely by the nose and head. It should pass through the vulva smoothly after its shoulders have passed through the birth canal.

### Stage 3) Duration: within 1 hour of birth

- Passage of the foetal membranes (placenta)\*

*\*It is important to keep the placenta so that your veterinary surgeon may examine it. This will help to determine whether any part has been retained within you mare.*



## How to prepare

- It is important that the foaling environment is as clean as possible. A large, dry, grass paddock or a clean, disinfected, deep straw bedded foaling stable are both suitable
- CCTV has become a popular tool both within large studs and for individual owners to use. This permits "controlled monitoring" without unnecessary interference of the mare
- Mares may be fitted with foaling alarms\* which sound should the mare begin to sweat prior to giving birth.  
\*Some mares do not sweat and alarms DO fall off and move(!) so these should not be 100% relied upon to detect imminent foaling.
- Important equipment to have to hand:
  - Phone numbers of your vet (and individual experienced in foaling)
  - Watch, pencil and notepad to monitor timings of specific events and make note of any abnormal occurrences
  - Towels to dry the foal and mare
  - Disinfectant (iodine) or blue antibiotic (oxytetracycline) spray to clean the foals navel
  - Means of cleaning the mare following foaling
  - A sturdy bucket for the placenta
  - Disposable gloves to keep your hands clean

## When to worry (and seek help!)

At any time should the birth process not be progressing in a smooth, timely manner – see above – it is advisable to call for help immediately just in case. Instances in which to call the vet include the following:

- If signs of uterine contractions start then diminish or disappear.
- If the foal has not appeared within the opening of the vulva within 10 minutes of the mares water breaking
- If a red coloured bag appears at the vulva
- If only one foot appears through the vulval opening
- If the feet appear upside down
- The nose of the foal appears before the hooves
- One/both feet are on top of the head
- If the foal is not delivered within 20-30 minutes

## In summary...

Hopefully this has allowed you to familiarize yourself with all the stages involved. If you have any concerns regarding the upcoming foalings please do not hesitate to contact one of the practice vets. Likewise if any problems are encountered during the foaling process please contact us at the earliest possible chance you have.

## A normal foal

It takes 24-48 hours for a foal to adapt to the external environment. There are a number of things to look out for within specific timeframes to ensure that your newborn foal is adapting sufficiently to the surrounding environment.

Normal foal parameters to look out for:

- Foal should sit up and have a suckle reflex within 20 minutes
- Foal should stand within 1 hour
- Foal should be suckling within 2 hours
- It is important that foals ingest sufficient colostrum within the first 18 - 24 hours of life (roughly 1 litre should be consumed within the first 6 hours)
- Normal temperature 37.2 - 38.9°C
- Normal heart rate: 40 - 80bpm
- Normal respiratory rate: 45-60bpm
- Should pass "meconium" (dark brown pasty poo) within 24 hours
- Colts should pass large volumes of dilute urine by 6 hours
- Fillies should pass large volumes of dilute urine by 10 hours

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