



**KEEPING™
BRITAIN'S
HORSES
HEALTHY**



**RESPONSIBLE
HORSE OWNER BOOKLET**

CARING FOR YOUR MARE AND FOAL



MSD
Animal Health

INTRODUCTION



Breeding your own foal can be a wonderful experience, but they do require additional care and dedication to thrive

It may seem like waiting for the birth of a foal takes an eternity, but the average gestation length for most mares is 335 to 340 days (range 320 to 350 days). Use this time to make sure you are prepared for your foal's arrival and have a healthcare plan in place.

This guide is part of a series covering a range of different topics to help you keep your horses healthy.

For more information and to gain access to the rest of the series, please visit our website: www.healthyhorses.co.uk or find Keeping Britain's Horses Healthy on Facebook and Instagram.



MANAGEMENT OF THE MARE IN LATE PREGNANCY

Should I give my in-foal mare extra feed?

Some mares, though not all, may require some extra feed to maintain their body condition during late pregnancy. Excessive weight gain during pregnancy could increase the likelihood of having problems during foaling, so it is important for a pregnant mare to maintain a healthy bodyweight, and not to gain or lose too much weight. A hard feed suitable for pregnant and lactating mares is a good option to consider. It is good practice to body condition score your mare; for more information on how to do this visit www.healthyhorses.co.uk/horse-health. To help keep your mare in optimum body condition consider feeding a supplement containing prebiotics, postbiotics and amino acids. If you have any concerns about your mare's weight, you should consult your veterinary surgeon.

Should I vaccinate my mare?

It is important that your mare is up to date with her routine vaccinations. Many owners choose to vaccinate in the last 4-6 weeks of pregnancy to boost antibodies in the colostrum, the first milk the foal will suckle straight after birth. The newborn foal relies on ingestion of colostrum and absorption of these antibodies during the first 12-24 hours of life for protection against a wide variety of diseases during the early postnatal period. You should discuss your mare's vaccination schedule with your vet.

Should I worm my in-foal mare?

A targeted worming regime should be continued throughout pregnancy – using worm egg counts to establish which horses need treating with wormers and leaving those that do not untreated. If mares and foals are going to be turned out onto pasture the mares should be wormed in the last month of pregnancy to reduce the number of worm eggs the foals are exposed to in early life. *Strongyloides westeri* (intestinal threadworm) can pass to the foal through the mare's milk. Worming in the last month of pregnancy helps to reduce this transmission. Your vet will be able to advise you on which wormers can be used in pregnant mares.



FOALING

Many owners send their broodmare to a stud for foaling and a short period before so they can be looked after by experienced stud staff. Some owners prefer to keep the mare at her usual yard to foal. If you choose the latter, it is important to let your vet know the mare's due date. Giving them some prior warning means they can help with any concerns prior to foaling, and are ready to respond quickly in case of any problems.

Before your foal is born, your veterinary surgeon will be happy to advise you on how to check the foaling is progressing normally. The majority of foalings are quick and straightforward, but if there is a problem it is imperative to act quickly and contact your vet as foals can only survive a very short time once they have started being born, and there may be serious consequences for the mare too.

After the waters break the foal should be born with two front feet first, followed by the head, body and back legs. A whitish membrane around the foal is normal. If there is a red membrane this should be broken by hand immediately as this is a "red bag delivery" and the foal is at risk. The foal should be born within 20-30 minutes of the waters breaking and the mare starting to actively push (usually lying down, but some mares foal standing up without a problem). If the foal appears in an abnormal position, or has not been born after 15 minutes of the mare pushing, contact your vet immediately.



The mare should pass the placenta (membranes) within three hours of the foal being born. If the membranes are not passed this could lead to retained placenta, a potentially life threatening problem. Uterine infection, shock and laminitis can all result. Keep the placenta for your vet to examine to look for signs of disease and to be certain that the entire placenta has been passed.

It is recommended that all newborn foals receive a routine neonatal examination by a vet within the first 24 hours of life. Early disease detection in both the newborn foal and postpartum mare can be lifesaving.

FOAL CARE

Newborn foal care and observation

The first few hours of your foal's life are critical. A healthy newborn foal should be able to stand within one hour of delivery and should be nursing within two hours. If your foal is too weak to stand and nurse, contact your vet immediately.

Your foal should pass its first droppings, or meconium, within 12-24 hours of delivery. Meconium is pasty or pelleted in consistency and dark brown or black in colour. Following meconium passage, the foal's faeces should be soft and light tan in colour.

It is extremely important to monitor and care for the umbilicus/navel to prevent infection. Infection can enter from the environment and cause problems either in the stump itself or a widespread infection of the abdomen, called peritonitis, which can be very serious. Regular bathing with an antiseptic (for example, very dilute chlorhexidine or iodine) will help keep the cord clean and encourage it to close and dry. It usually takes 2-3 days for the cord to close and dry fully, but until it is, it should be monitored for swelling and discharge, and if you are concerned you should contact your vet immediately.

Both mare and foal should be checked by a vet in the first 24 hours after foaling to ensure the mare is recovering well and there are no problems in the foal. Depending on whether the mare has been vaccinated recently, your vet may give a tetanus antitoxin injection to the foal, which provides it with short term protection from tetanus while it is gaining antibodies from its mother. A blood sample may be taken at this stage to check the foal has taken enough colostrum to provide it with sufficient immunity.

You should observe your newborn foal frequently during the first few weeks of life to detect early signs of disease. Often the first sign of a sick foal is lethargy and decreased nursing vigour accompanied by an overly distended udder on the mare. Young foals are at risk for a variety of respiratory diseases and diarrhoea. Monitor your young foal's breathing rate and effort, body temperature, nursing behaviour and manure consistency.



VACCINATION



Why should I vaccinate my foal?

Foals are born ready to stand and suckle very quickly, but they are highly susceptible to disease as they have no antibodies at birth. Antibodies from the mare's colostrum (first milk), known as "Maternally Derived Antibodies" (MDA), are essential in providing protection to young foals whilst their own immune system develops. It is important to ensure mares are correctly vaccinated to provide sufficient levels. High levels of MDA prevent vaccines working properly but they wane over the first few months of life as the foal's own immune system gets stronger, meaning that foals need vaccinating against influenza and tetanus when they are a little older. Vaccination helps young horses fight infection and if a horse does develop disease, it will decrease the severity of the illness.

Generally vaccination programs against equine influenza and tetanus start when foals are 5-6 months of age. In cases where there is an increased risk of disease or poor colostrum intake, vaccination can be started earlier.

Equine influenza (flu) is caused by a highly contagious virus and is widespread throughout the UK horse population. It can lead to serious complications in very young or old horses and due to its infectious nature can spread rapidly through groups of unprotected animals. In 2019 the UK saw a large equine flu outbreak throughout the country, with over 230 premises reporting outbreaks (www.equiflunet.co.uk 2019), which caused disease in many horses, mostly unvaccinated.

Tetanus is also commonly vaccinated against. The bacteria that cause this disease (*Clostridium tetani*) live in the soil, and when they enter the body they multiply and produce toxins which cause the neurological signs. Bacteria can enter the body through wounds or the umbilicus (navel/cord stump) so first aid is also very important, but vaccination provides protection from this devastating, and often fatal, disease.

You should discuss an appropriate vaccination schedule with your vet.

What does vaccination achieve?

Vaccination is the best way to protect your foal and others around it from infectious and contagious diseases. Vaccinating enough horses in a group means the whole group becomes protected through "herd immunity" (see image below). This means that the disease cannot spread because there are not enough unvaccinated horses for it to spread to. Therefore all horses in contact with broodmares and foals should be vaccinated to ensure strong herd immunity and the protection of young foals.

For more information about infectious disease and vaccination visit:

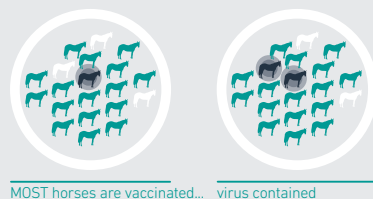
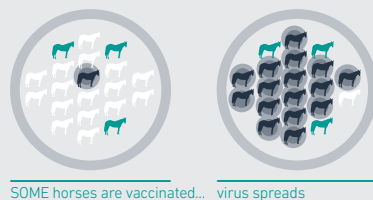
www.healthyhorses.co.uk/horse-health

Herd immunity – safety in numbers

 Healthy horse, non-vaccinated

 Healthy horse, vaccinated

 Non-vaccinated, sick, contagious



WORMING

Effective parasite control is necessary to ensure a good start for your foal

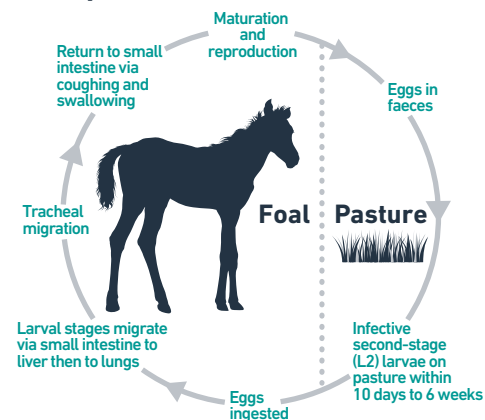
Youngstock are especially vulnerable to worms as it takes months for their immune system to mature. They need to develop a strong natural immunity by being exposed to a safe level of parasites. Foals are especially infected by worms from their mother, as well as other horses they share turnout or are in contact with.

Monitor your mare during pregnancy with worm egg counts and worm her appropriately using products that are safe for use in pregnant mares.

The most important parasite in foals and youngstock is the ascarid *Parascaris equorum*.

- These are whitish roundworms which can grow extremely long (up to 40cm)
- They can cause blockage of the gut, causing colic which may be fatal in severe cases
- They can also cause more subtle signs, such as poor growth, pot belly, rough coat and coughing
- Migration by larvae (immature worms) through the lungs and liver damages these organs
- Ascarid eggs are very resilient and can remain dormant on pasture from year to year, so fresh grazing for mares and foals is ideal
- It is recommended that foals are wormed with fenbendazole at 8-10 weeks and again at weaning to control ascarids. The foal will then develop a natural immunity to this parasite

Life cycle of ascarids in foals (*P. equorum*) – 10-15 weeks



Adult ascarid worms in the small intestine of a foal. Photo: C Osborne, N Pasturel and J Watson, RVC.

WORMING CONTINUED

Other important parasites are:

- Intestinal threadworm (*Strongyloides westeri*)
 - These parasites can be passed through the mare's milk to infect the foal, and can cause diarrhoea
 - Worming the mare around foaling can help prevent this occurring
- Small redworm (Cyathostomins)
 - These roundworms can cause severe to fatal disease, and youngsters are particularly susceptible
 - Their larvae burrow into the large intestine lining becoming "encysted", and if the horse is wormed can emerge simultaneously in large numbers, causing severe inflammation of the gut resulting in the horse becoming very unwell

Worming protocols for adult horses are not appropriate for foals.

Your vet can advise you on creating a protocol tailored to your mare, foal and property.



GUT HEALTH

Foals are born with very few bacteria in their gut

When they suckle for the first time, thousands of healthy bacteria in the colostrum (first milk) populate the gut and the microflora (healthy bacterial population) starts to be established.

However, the foal's environment is full of bacteria, no matter how clean it appears, and if this healthy microflora is not established well and quickly, pathogenic (harmful) bacteria can get into the gut, multiply and cause disease, including diarrhoea or, in serious cases, sepsis (blood infection and shock due to infection). Foal Heat Diarrhoea is a common problem, which is not caused by infection, but can cause illness and dehydration to develop around 5 to 15 days after birth.

Weaning also affects gut health – when the foal's nutrition changes from milk to hard feed and grass, the gut bacteria may become imbalanced, and digestive disturbance can result. Stress due to weaning can also upset the balance and cause problems.

How can I help my foal's gut flora?

Giving your foal a supplement (after it has had its first feed of colostrum) containing a prebiotic and postbiotic will encourage the healthy bacteria to colonise and establish a thriving microflora. This microflora forms a basis for the foal's general health as it grows older. Prebiotics are substances which provide nutrition and support for the healthy bacteria to grow, and postbiotics mimic the effect of these bacteria, hence providing the right environment in the gut.

By using prebiotics and postbiotics to support the healthy gut flora there is no need to supplement with a probiotic (live bacteria).

You should also consider giving a supplement at other times when the gut flora may be disturbed, such as foal heat, weaning and any diet or management changes.



FOAL IDENTIFICATION

It is a legal requirement to identify all foals with a passport and microchip. This must be done before the foal reaches six months of age or by December 31st in the year it is born (whichever is later).

Why does my foal need a horse passport?

- The passport is an important document which identifies your horse in the case of loss or theft
- If a horse is stolen, the passport system means that it cannot be sold on because it is illegal to sell a horse without a valid passport. It is also illegal to buy a horse without a passport
- It is also an official document which ensures horses that have been treated with certain prohibited drugs do not enter food intended for human consumption
- Horses should be accompanied by their passport when they are transported

What is microchipping?

Microchipping means that individual horses can be uniquely identified by anyone with an appropriate scanner.

Microchipping a foal is a quick procedure which must be performed by a vet. The microchip is a small device, similar in size to a grain of rice. It is inserted via a needle into the nuchal ligament of the neck from the left hand side. It is virtually impossible to remove even under surgical conditions.

If you want to sell or move the foal without its dam or foster mare it must be microchipped and have a passport.



WHAT SHOULD I DO NOW?

- Make sure your vet is aware that your mare is in foal and when foaling is expected
- Discuss a preventative health plan with your vet for both your mare and foal including:
 - Vaccination
 - Worming
 - Nutrition
- Consider a gut health supplement for your foal
- Make sure your foal has a microchip and passport

Where can I go for further information?

- Your vet
- To find a vet in your area findavet.rcvs.org.uk/find-a-vet
- Healthy Horses website – horse owner information www.healthyhorses.co.uk
- For more information about applying for a horse passport www.gov.uk/horse-passport/apply-for-a-horse-passport
- For more information about prebiotics and postbiotics www.coopers-range.co.uk





Further information
is available from:

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