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SPRING IS IN THE AIR-CARING FOR THE NEWBORN FOAL

With spring just around the corner, it can mean only one thing-foals!! This month we will review the normal healthy foal. Next month we will cover the foster mare and orphan foal.

Whether you are a first time breeder or an experienced stud manager, it can do no harm to remind ourselves of how a newborn foal should be. Foals are not miniature horses and can succumb rapidly to fatal diseases.



During the 11 months of pregnancy, the mare's placenta provides nutrition, gaseous exchange, waste removal, temperature control and protection from infection. At birth, the foal is suddenly expelled into a relative state of independence with many new challenges to meet. The newborn foal has to undergo considerable physiological adaptation to survive.

What is normal and when should I worry?

Following birth, the foal should sit up within a few minutes, and be struggling to stand within a couple of hours. The foal should have a good suck reflex within 20 minutes and be sucking within 3 hours.



A healthy mare and foal 20 minutes after foaling

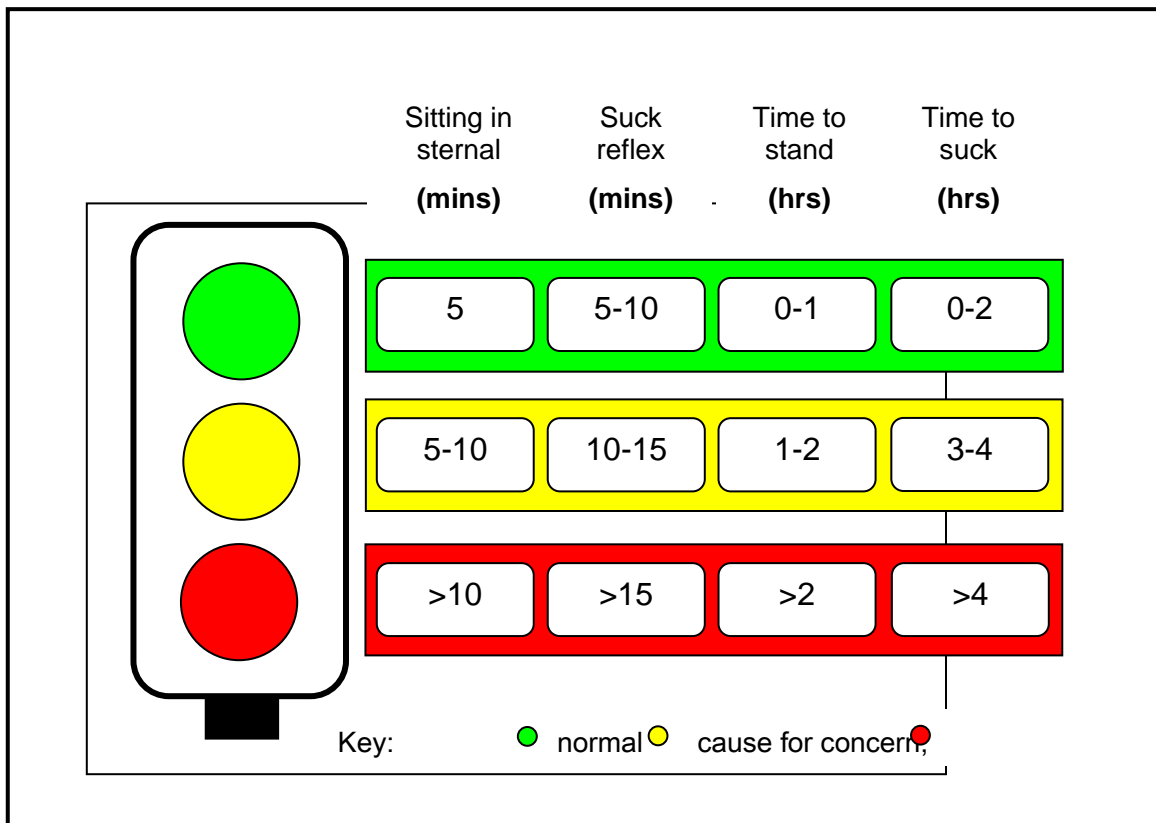
The foal should have passed urine within the first 12 hours (slightly longer in colt foals). The first few urinations may be pale in colour and copious in amount as the foals' kidneys mature over the first 48 hours.

Normal Parameters

	Heart rate Beats per min	Respiratory rate Breaths per min	Temperature
Birth	60-80	Gasping	37-39 (99-102)

0-2h	120-150	40-60	37-39 (99-102)
12h	80-120	30-40	37-39 (99-102)
24 hours	80-100	30	37-39 (99-102)

The Traffic Light Alert System!



Following birth the umbilical cord should be allowed to break naturally. The stump should be treated with a weak iodine solution, 0.5% chlorhexidine solution or an antibiotic spray, 3-4 times a day throughout the first few days. If there is any wetness, heat, swelling or pain then call your vet immediately.



A swollen umbilicus due to infection

The **meconium** is a type of faeces formed whilst the foal is in the placenta. It is made up of swallowed birth fluids, cellular debris and glandular secretions. It can be a surprisingly large amount of dark brown matter. It should be passed within the first 5-7 hours and then followed by pale, looser milk faeces. Overdue colt foals are prone to meconium retention. Signs will include tail swishing, fidgeting, straining and colic.



A colt foal straining to pass meconium.

Your vet should be called immediately to provide pain relief and an enema.

The mare's placenta prevents the transfer of any **immunoglobulins** across into the foals' circulation. Foals are therefore born **immuno naïve**. This makes them incredibly susceptible to disease. They have the ability to respond to infection but have no circulating **antibodies (immunoglobulins)**. It is therefore essential that the foal receives 1.5-3l of good quality **colostrum** to provide it with immunoglobulins to protect it from infection until its' own immune system is developed. Colostrum is the mare's first milk, which is rich in antibodies. The foal absorbs the antibodies across its' gut wall. This is called **Passive Transfer**. Maximal absorption occurs at about 8 hours and continues

until the gut wall closes at 24 hours of age. **The first few feeds are essential to the health of the foal.**

Alarm bells should start ringing if:

The mare is running milk prior to foaling- she is losing her colostrum of which she only has limited amounts.

Maiden mares- they often have poor quality and quantity of colostrum.

If at all concerned then call your vet immediately. The foal may need to be stomach tubed with mare's colostrum, donor colostrum, synthetic colostrum or cow colostrum. Cow colostrum antibodies only last for about 4 days in the foal's circulation so are a poor replacement. Goats milk is much better. It is a good idea, prior to the foaling date to contact any nearby studs to see if they have stored frozen colostrum, or if you are breeding every year to freeze some of your own mare's colostrum. You can take 250ml of the colostrum from the mare without it affecting the foal at foot.



The foals' level of circulating antibodies can be measured from a blood sample taken on day 2 of the foals' life. This will show how successful passive transfer has been and reveal whether the foal needs a **plasma transfusion**.

The normal healthy foal should spend roughly one third of its time sleeping, feeding and playing. The foal should be playful and inquisitive but often dart behind the mare when owners enter the stable.

It is a good idea to call your vet following birth, to check the mare, foal and the placenta. We recommend that the new born foal receives a vet check on day one along with tetanus cover and a blood sample is then taken on day 2 to check for success of passive transfer of antibodies. But these measures are by no way a replacement for good hygiene and cleanliness on the farm.

Don't forget about the mare and the placenta. Check that the whole of the placenta has been expelled.



A retained placenta in the mare can be life threatening due to endotoxaemia and subsequent laminitis. It is a good idea to keep the placenta in a bucket for the vet to check.

Above all, enjoy your new found motherhood!!!!