

Delivery and Early Foal Care

By Brad Newman, DVM

After breeding your mare and waiting impatiently for 11 months, foaling is a much-anticipated event. Remember that the final hours when your mare foals and the foal stands and nurses are a critical time. A little preparation and a watchful eye can make this time a rewarding experience for everyone involved.

Approximately a month prior to foaling it is a good idea to vaccinate your mare; contact your veterinarian for recommendations. This vaccination builds up the immunity in the mare's colostrum, the first milk the foal receives at birth. From this milk, the foal acquires a passive transfer of immunity from its mother; this is the foal's defense against infection in its early life.

Then you must wait for the foaling itself. Most deliveries occur between 11 p.m. and 3 a.m., so it is easy to miss some of these events. Mares are notorious for waiting for you to turn your back before they deliver, but if you are a witness, you should see your mare move through three classic stages of foaling.

Stage 1: Beginnings of Labor

During this stage, the mare prepares for the delivery. She may be restless and exhibit signs similar to that of a mild colic - pawing, lying down and getting up again, looking at her flanks and showing signs of abdominal pain. Depending on the mare, this stage might last up to several hours. During this time, you might want to make sure the stall is clean, dry and well-bedded. You should also clean the mare's udder and vulva and apply a tail wrap if possible.

Stage 2: Delivery of the Foal

Once her water breaks, your mare has finished stage 1 and transitioned to stage 2. During this stage, the foal is born; delivery must happen within 30 minutes of her water breaking, or the life of both the foal and the mare may be at risk. You should see the foal's legs being delivered first, and it is normal for one leg to be slightly in front of the other leg. Next you should see the head, and the rest of the foal's body follows. Make certain you remove the placenta from the foal's face and mouth if needed, so it can breathe properly. At the first sign of any problem, contact your veterinarian immediately. Since many veterinarians will have difficulty arriving within 30

minutes, have a fully charged cordless or cell phone handy so your veterinarian can talk you through the delivery while driving to your farm. If prior to the foal's delivery you see a red meaty looking placenta, this is an extreme emergency known as premature placental separation or "red bag." Call your veterinarian immediately and follow his or her instructions for delivering the foal.

Stage 3: Passage of the Placenta

During this final stage, your mare needs to pass the placenta within three hours after foaling. Anything greater than three hours is a retained placenta, which can result in long-term reproductive consequences. A greater fear with retained placentas is that toxins are released into the uterus, and the mare will founder. If the placenta has not passed, NEVER pull it out. It is likely you will tear it and possibly leave part of it in the uterus, resulting in the same risk of infection and founder. Once again, your veterinarian needs to be called to initiate the appropriate therapy. If the placenta passes without incident, carefully place it in a bucket of cool water so your veterinarian may examine it later.

Post-Foaling Care

When the foal arrives, we are all usually excited. As happy as you are, try to give the mare and the foal a little bonding time. After this, however, the foal does require some special care. First the umbilical cord needs to be dipped in an antiseptic. For many years, iodine was the suggested disinfectant for the umbilical cord. I personally believe that iodine is harsh and would prefer seeing the cord dipped in something like Nolvasan. However, remember that no amount of antiseptic can overcome a dirty environment; therefore, the stall should be re-cleaned and all the wet bedding removed. Keeping the foal's environment as clean as possible in the early days can not be over emphasized.

Just as three hours is the magic time for passage of the placenta, it represents an important time for the foal. The foal must be standing and nursing within three hours to receive the maximum benefit from the colostrum. If the foal is not standing and nursing by this time, consult your veterinarian. He or she will probably instruct you to milk the mare and bottle feed the foal to ensure it acquires the necessary antibodies from the colostrum. If the foal has a poor suckling reflex it also needs to be seen immediately by your veterinarian; he or she may pass a nasogastric tube to administer the colostrum and perform a good physical exam on the foal. The sooner problems are diagnosed the better the prognosis for correcting them.

No matter how textbook the delivery, all mares and foals should be seen by your veterinarian the following day. He or she will examine the mare's vulva for tearing and possibly examine her cervix as well. All foals should receive a good physical exam and have blood drawn to evaluate the passive transfer of immunity (IgG) achieved from the colostrum. The current accepted level for IgG is 800ng/dl, and if this level isn't achieved it will require intravenous plasma to boost antibody levels. Foals are usually given a tetanus vaccine at this exam as well, and your veterinarian will evaluate the placenta you have saved to make sure no part was retained by the mare.

Remember that foals are notorious for getting into trouble. Make sure you foal-proof your stalls and pastures to prevent injury. With a little bit of caution and some common sense your foal can be off to a great start.

Watching for Red Bag

Photo by Dr. Patrick McCue, Colorado State University The placenta consists of two membranes: the inner amnion, which surrounds the foal, and the outer chorioallantois, which attaches to the uterus. During the normal onset of labor, uterine contractions cause the chorioallantois to rupture (i.e. the "water breaks"). The broken membrane allows the amnion-covered foal to slip through the cervix and be delivered. Thus, in a normal foaling you should see this translucent gray membrane protrude first from the vulva. Then, after the foal is born, continued contractions release the chorioallantois from the uterine lining, and it passes from the mare's body, generally within three hours. Occasionally, the chorioallantois doesn't rupture at the cervix, separates from the uterus too soon and begins to protrude through the vulva.

This is known as premature separation of the placenta or "red bag" due to the thick red color of the membrane. When the placenta separates prematurely, the foal is deprived of oxygen and is in danger of death by asphyxiation. If you encounter a red tissue protruding from the vulva instead of the thin gray amnion, it is an extreme emergency. Contact your veterinarian immediately for delivery instructions.

Brad Newman, DVM, attended The Ohio State University, graduating with a B.S. in Agricultural Economics, The DVM and an M.S. in Reproductive Physiology. He was the resident veterinarian for Hill Farms in Hilliard, OH for 9 years, and in 1993, he moved to Cocoa, Fla. to establish Newman Equine. As a youth and an amateur he exhibited Quarter Horses and now actively shows cutting horses.