

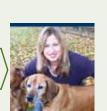
The Neonatal Foal: What to Expect

ne afternoon, during a busy foaling season, your practice receives a call from a loyal client whose mare has just delivered a foal. As your veterinarian prepares to go to the farm and examine both mare and foal, he asks you to ride along and assist him. As you drive in the truck with the veterinarian, you prepare yourself for the task ahead by imagining possible scenarios in your mind. Are you ready for what may come next?

Breeding a mare and delivering a foal is an exciting time for many horse owners. Although a mare will usually a deliver a healthy foal, it is important to recognize any problems that develop during the neonatal period—a time when the foal is particularly prone to certain problems and potential diseases. A foal's normal development will be discussed in this article, while highlighting the important role of the veterinary technician. A neonatal (newborn) foal should be monitored closely through both observation and physical examination to detect subtle changes that may indicate progressive growth or deterioration.

When a foal is born, many changes occur within a short time after delivery to protect both mare and foal from predators (Figures 1 and 2). Within 24 hours of birth, the foal should be strong, alert, nursing readily, and capable of running. Table 1 lists the developmental milestones for a typical neonatal foal. If a foal does not develop rapidly after birth, it is usually a sign that he is ill and needs immediate treatment. When you arrive at the farm, it is important to observe the foal's behavior for several minutes-without human interaction-to assess his attitude and energy level. Initial milestones for a foal after parturition (delivery) include developing a suckle reflex shortly after birth (i.e., curling tongue and seeking to nurse), standing within 1 to 2 hours, and nursing successfully within 6 hours (often by 2-3 hours old). The first urination normally occurs around 12 hours after birth. Foals pass meconium (black, sticky fecal material) within a few hours of delivery; however, some foals have difficulty passing this first stool and become uncomfortable (e.g., lifting tail, straining, tail flagging), and require a warm water, soapy enema. A typical enema for an average 100-pound (45 kg) foal is 500 mL warm water mixed with a small amount of Ivory soap. A nursing neonatal foal urinates frequently. Urine will be dilute (specific gravity 1.001-1.006) because mare's milk is mostly water. Foals defecate 1 to 2 times per day, and a nursing foal's fecal material should be soft and yellow.

On physical examination, a neonatal foal should be bright, alert, and responsive (BAR). Table 2 lists useful questions to ask clients during the physical examination. A normal temperature, pulse, and respiration (TPR) at birth should be T=99 to $100^{\circ}F$ (rectal temperature); P=60 to 80 beats per minute (bpm); R=10 to 20 breaths per minute (bpm). The typical foal's heart rate will gradually increase to 120 bpm, and respiratory rate (RR) will gradually increase to 40 to 60 bpm. Mucous membranes should be pink and moist, with a capillary refill time (CRT) <2 seconds. The heart beat should be strong and regular, with a synchronous pulse. The median artery (on the medial upper forelimb near the elbow) can be used to assess the pulse rate and quality. A quiet systolic murmur



..::Amy I. Bentz, VMD, DACVIM

Dr. Bentz was in ambulatory practice for approximately 4 years before returning to the University of Pennsyl-vania George D. Widener Hospital for Large Animals, New Bolton Center, Kennett Square, to complete an internal medicine residency and fellowship in perinatal/neonatal medicine.

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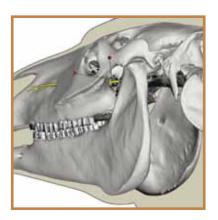
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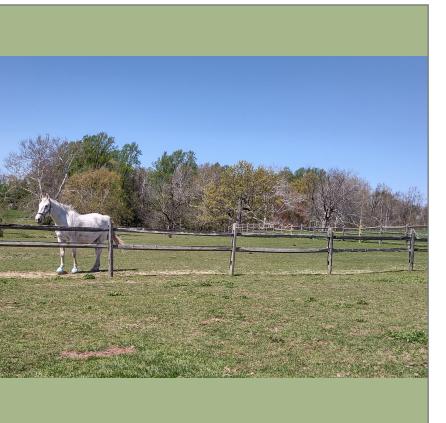


Here's to You!



..::Amy I. Bentz, VMD, DACVIM

Perhaps the great
British statesman Sir
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Enjoying a spring day!

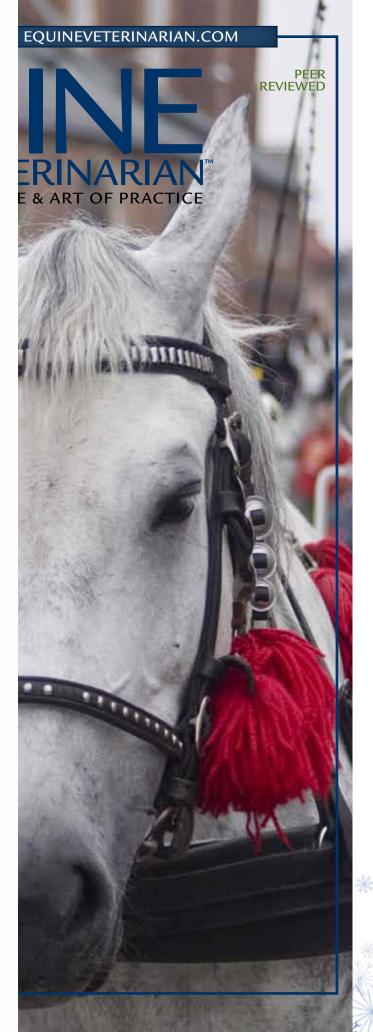
This season of graduation is a wonderful time to take a few minutes to reflect on our own graduation and profession. Whether you graduated this year or 30 years ago, the memories of your journey through veterinary school are probably still fresh in your mind—the excitement upon learning of your acceptance into a veterinary college, followed by long hours of hard work before finally reaching your goal of graduation! I am sure you can also recall the thrill of your first postgraduate position, along with the blur of countless hours spent helping the many horses and owners over the years. Perhaps your memories also include buying or starting your own practice and learning the joys and difficulty of being your own boss.

This time of year in particular highlights the trusted position that we hold in our communities, especially when attending various community events and gatherings. How many of us are fondly called "Doc" even when we aren't working? Perhaps the conversation starts with "Doc, my child would like to be a vet, what do you recommend?" or "Doc, what would you do in this situation?" Regardless of the question, the person asking always earnestly awaits your answer as a well-respected leader in the community.

In our busy, fast-paced lives of profound technical advancement, there is something reassuring about working around horses and nature. My favorite time in a barn is after the hectic rush of feeding and cleaning, when the horses have settled down and are quietly eating their food or dozing off in the sun. Perhaps the great British statesman Sir Winston Churchill offered the best insight when he said, "There is something about the outside of a horse that is good for the inside of a man." Despite modern trappings, people remain connected to the simplicity of horses, and as vets, we play a valuable role of encouraging this healthy connection. The sense of wonder and accomplishment never grows old when I see a sick horse respond favorably to treatment. It is also an honor to assist owners—who quickly become friends—as we work together on our shared goal of keeping horses healthy.

So, here is a toast to all equine veterinarians—whether freshly minted or seasoned professionals—keep up the good work in the communities that we serve and may all of our days be blessed!

This is just the beginning.







Don't be left out in the cold-