

Tacoma Equine Hospital

3112 – 156th Street E. Tacoma, WA 98446 ♦ 253.535.6999

Foals and Foaling

The newborn foal is a marvel of readiness to survive the natural world shortly after coming into the world. The foal is born at sixty percent of its mature height and ready to run with the dam in a few hours post foaling. Colts and fillies are examples of precocious newborns, meaning they are born with most of the abilities of an adult. There are important adaptations that allow this rapid progression into functionality of a newborn foal.

Foals are born rapidly

Labor in the mare is divided into three stages. The first stage involves positioning of the fetus and readying for delivery. This is a subtle stage and can easily be missed by those observing the mare. The mare may become restless and pace the foaling stall, grabbing mouthfuls of feed or water. Occasionally small patches of sweat may appear as the mare experiences positional and hormonal changes readying for stage two of labor. Stage one can last a few hours.

Stage two of labor is the rapid expulsion of the foal through the birth canal into the outside world. This is the most obvious phase of labor and is the stage that the stakes are the highest for safety of the mare and the foal. Most foals are carried lying on their backs as if napping on a hammock with their heads pointed toward the rear. During stage two the foal rotates over onto its stomach and more or less dives out into the world. Meanwhile the mare is usually lying fully on her side with obvious straining and contractions. The amnion (white sac) is first visible, the water breaks, and the foal's front feet appear followed by the nose. The toughest part for the mare is the chest and shoulders of the foal. Barring complications, the foal is normally on the ground within twenty to thirty minutes after the water breaks. It is not uncommon for the mare to lie quietly catching her breath while the foal lies behind getting its bearings, during which the umbilicus is still attached to the mare. It is thought this allows extra blood to drain out of the placenta and back to the foal. If everything appears normal at this time the mare and foal should be undisturbed.

The third stage of labor occurs generally after the foal stands and nurses. Oxytocin, the hormone of milk letdown, causes uterine contractions and helps expel the placenta, or afterbirth. If the birth is observed, the foal's navel should be dipped with an antiseptic solution after the umbilicus detaches from the foal. The placenta should be removed from the stall after expulsion and saved in a bucket for veterinary inspection.

The gift of colostrum

The most important thing the newborn foal must accomplish within a few hours after birth is to stand and nurse the first milk or colostrum. Foals are not born with much in the way of energy stores and will need to nurse soon to sustain themselves. The colostrum is special milk that is rich in protein, fat, and sugar. Additionally it contains the full compliment of the foal's immune system recognition. Special proteins called immunoglobulins are present in the colostrum and must be ingested by the foal rapidly in order for its immune system to be able to recognize disease causing organisms or pathogens. The ability of the foals gut to absorb these specialized immunoglobulins functionally intact starts waning rapidly as the foal ages and is essentially zero at twenty-four hours of age. This phenomenon is called the passive transfer of immunity and is one of the most important gifts the mare gives to the foal. With successful passive transfer of immunity the foal can begin to grow in the outside world with its multitude of microbial challenges. If unsuccessful, the foal will quickly succumb to a host of microbial pathogens.

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Important Timelines and the 1-2-3 rule

The rapidity of the neonatal foals early developments can seem daunting but remembering a few general rules can be helpful. First keep in mind that the foal should be on the ground within one half hour after the water breaks. The 1-2-3 rule means the foal should stand within one (1) hour after birth, nurse within two (2) hours and the placenta should pass within three (3) hours after birth. Foals that adhere to these general guidelines rarely have any complications with early development.

When do you call the vet?

If the foaling is observed and the mare has a history of dystocia or difficult birthing, then we should be called as soon as the mare's water breaks. If there is any question at all regarding the mare and foal's health, we should be called immediately as signs of early trouble can be subtle and rapidly progress into a serious situation. If the foal comes into the world with no difficulty in the birthing process and appears completely happy and healthy, we like to examine the mare and foal between twelve and twenty-four hours of life. The mare is examined for any trauma related to birthing and to ensure her physiologic status is stable. The placenta is examined to make sure it was passed completely. The foal's health is assessed to make sure he or she is adapting to life outside the womb and is not showing any subtle signs of trouble. We routinely take a blood sample at this time to check the foal's level of immunoglobulin G (IgG), which indicates the success of passive transfer of immunity. We also take the time to discuss feeding, deworming, and vaccination recommendations at this visit.