



## Foaling Mare Mishaps

*Dr. Wendy Krebs  
Bend Equine Medical Center*



Most horse breeders are well aware that the time around foaling can be dangerous for both the mare and the foal. Horses are unique in how quickly they give birth, and the speed and force involved can result in severe consequences for both dam and foal if there are problems. There are also a variety of mishaps that can occur in the mare in the weeks before and after foaling.

Uterine artery rupture usually occurs at foaling or in the 48 hours following, and is a life-threatening occurrence. It can happen up to several weeks before foaling as well. In late pregnancy, the uterus has a generous blood supply from several large arteries. In older mares, the walls of the arteries can become weak & friable, and the weight of the foal and uterus pulling downward can result in rupture of a vessel. The vessel ruptures internally, and so it is rare to see any signs of external bleeding.

Mares quickly become shocky, and may show colic signs as their abdomen fills with blood. In the worst case scenario, the mare bleeds to death within minutes. Sometimes, the bleeding is contained in the tissues surrounding the artery (the broad ligament), and this exerts enough pressure that the artery stops hemorrhaging. Any exacerbation or a tear in the ligament can start the process again. These mares may show signs of shock and colic, but usually survive long enough for treatment to begin.

Treatment consists of stabilization of the shocky mare with intravenous fluids, sedation, and sometimes blood transfusions. The mare must be kept in a quiet environment for several days to avoid blood pressure spikes that may restart the hemorrhage. If the mare makes it through the first few days, she will start to reabsorb

the blood from her abdomen and gradually become less anemic.

Mares who have had this condition are predisposed to another occurrence with the next pregnancy, so it's preferable to either retire them as broodmares or use embryo transfer techniques for subsequent pregnancies.

Colon torsion is a severe type of colic in which the mare's large colon rotates anywhere from 360-720 degrees within the abdomen. The equine large colon is a large U-shaped structure, and the bottom of the U is freely mobile. In a colon torsion, the bottom end of the U rotates, creating a twist at the top of the U, or base of the colon.

Broodmares who have recently foaled seem to be predisposed to this type of twist, which may be because their distended abdomen has a larger volume and allows more movement of the intestines.

A colon torsion can only be corrected with colic surgery and is an emergency. The twist cuts off the blood supply, so the tissues of the colon begin to die off immediately and can be irreparably damaged within three hours. Affected mares are usually severely colicky, and rectal palpation can identify the problem in most cases.

Rectovaginal tears are another hazard of life for a broodmare. If a foal is delivered either upside down or breech, its hooves can be directed upward instead of straight through the birth canal. The mare's strong contractions can force the feet through the top of the vagina and out into the rectum. This results in a rectovaginal fistula, in which the vagina and rectum are punctured in one area. If the foaling is attended, the foal's feet can be redirected back into the vagina and the foal can be delivered

normally without further injury to the mare. If the foaling is not attended, or the feet can't be pushed back into the vagina, the next push can result in tearing of the vagina and rectum all the way to the outside. This is called a rectovaginal tear.

Both rectovaginal fistulas and tears allow manure to contaminate the vagina and uterus, and the resulting infections usually make getting the mare in foal unlikely unless the defect is surgically repaired. Mares require antibiotic and anti-inflammatory therapy immediately and for several days following foaling. Repair of the injuries can be done immediately and for several days following foaling. Repair of the injuries can be done immediately and for several days, before swelling makes it impossible, but are most often delayed several weeks until the edges of the wound are healed and strong enough to hold sutures. The uterus must then be treated with antibiotics before the mare is bred.

Retained placentas are the last problem we'll discuss. Mares usually deliver the placenta within 30 minutes of birth. A placenta is officially considered retained if it's not delivered within 3 hours. Retained placentas can have severe consequences to

the mare's health, because the tissue quickly becomes infected. The mare rapidly becomes systemically ill and may run a fever, develop a poor appetite, and start to show signs of laminitis. A veterinarian should be called any time a placenta is retained for more than three hours.

In the meantime, bunch up the fetal membranes at the level of the mare's hocks and use twine to tie them so they're not dragging on the ground. The placenta should never be pulled out or forcibly removed. Doing so risks tearing and retention of small pieces inside the uterus itself. Your veterinarian's treatments will include removal of the placenta, antibiotics, uterine lavages, and anti-inflammatories.

Instead of forcibly removing the placenta, veterinarians will encourage uterine contractions. Administration of oxytocin (Pitocin) increases contractions, and distention of the placenta with saline has a similar effect. Both of these may be combined, especially if the first dose of oxytocin doesn't work. Uterine lavage, or flushing, after expulsion of the placenta removes any accumulated fluids or small pieces of placenta, making infection less likely.