

# The High-Risk Broodmare

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Certain conditions will put a broodmare's pregnancy at high risk of failure, either through abortion, stillbirth, or premature delivery. Owners of broodmares should be aware of warning signs that indicate something is not going well and a veterinarian needs to be contacted.

## Premature Mammary Development

Also known as "bagging up," most mares tend to display mammary development anywhere from days to a week or even two weeks prior to foaling. Maiden mares are the exception and may not show appreciable mammary development until after foaling, even by a day or two.

Gestation length in the mare is quite variable and can range normally from 330 to 360 days after ovulation. If, however, you notice that your mare has begun to develop increased mammary tissue more than a week before the anticipated due date, you should notify your veterinarian. This is often the earliest warning sign that the



**An enlarged mammary gland**

mare is preparing to deliver the foal, ready or not. Conditions such as twins or placentitis (inflammation or infection of the placenta) top the list of abnormal reasons the mare might expel the pregnancy early. In the case of placentitis, a diagnosis may be made by the veterinarian using ultrasound, and appropriate treatments may be started to help your mare fight the inflammation and infection and hopefully keep the pregnancy long enough to deliver a viable foal. Treatments would include antibiotics (most placentitis cases are caused by bacterial infection), anti-inflammatory drugs, and Regumate®.

## Vulvar discharge

Notice of any abnormal discharge coming from the vulva of the mare should be reported to your veterinarian. The urine of a horse contains a lot of minerals and often leaves a chalky deposit in the area underneath the vulva. This is sometimes mistaken as an abnormal discharge, when it is completely normal. You should note that the smell of discharge from normal urine smells like horse urine. It does not have an offensive or foul odor. Other discharges,

however, may include infectious material (purulent discharge or "pus") and blood.

Purulent discharge from the vulva in a broodmare most often signifies a placental infection. The discharge comes through the cervix and out the vulva. Placentitis, as discussed in the section above, is the most common cause and treatments, if caught early, may save the pregnancy and help deliver a viable foal.



**A hydrops mare**

Blood coming from the vulva in late pregnancy is most often due to the breaking of varicose vaginal veins. Though the bleeding may seem like quite a lot, it is usually not significant to the health of the mare or the fetus. Even so, it is wise to have your veterinarian evaluate the mare to confirm the source of the bleeding and discuss treatment options with you. Treatment for varicose veins most often is just watchful monitoring, but may include ointments to constrict blood vessels (much like hemorrhoid treatments) or even surgical ligation of the bleeding vessels.

## Pain

While broodmares may not be very comfortable in late gestation, they should not be in pain. A mare exhibiting signs of colic should always catch your attention. In late gestation, your veterinarian should be notified to check the mare for conditions such as a twisted uterus (uterine torsion) and peritonitis (inflammation of the abdomen), which may have been caused by a uterine rupture. Transrectal palpation, ultrasound of the abdomen, and sampling fluid from the abdomen (abdominocentesis) may help get to the diagnosis.

Treatment for uterine torsion is often best done by surgery. In cases where surgery is not an option, anesthetizing the mare and rolling her on the ground with a heavy plank on her abdomen to hold the uterus in place is an option. This "plank on the flank" method, however, may result in complications such as twisting

the intestines and leading to a definite surgical emergency.

Treatment for peritonitis includes anti-inflammatory drugs and antibiotics. Hospitalization and intravenous fluids are often necessary to save the mares.

## Increased abdominal size

Of course, late-term pregnant mares show an increase in their abdominal size as a normal

change due to the growing fetus inside. But the change is gradual. If you notice a marked change in the size of the mare's abdomen over the course of a week or two, your mare may have an abnormal, uncommon condition known as *hydrops* in which an abnormal amount of fetal fluids is produced within the uterus. This causes the uterus to impressively swell up and causes increased discomfort to the mare. The mare's abdominal musculature may rupture under the increased size and weight. Your veterinarian can diagnose this condition with transrectal or transabdominal ultrasound and palpation. Treatment options are supportive in nature (literally) and involve belly wraps, reduced activity (stall confinement), and anti-inflammatory drugs. Sometimes, early induction of labor may be recommended if the comfort and health of the mare become too compromised. Normal foals may be delivered from hydrops mares, but many foals are malformed. It is not possible, usually, to know before the foal is born if it will be normal or not. The health and comfort of the mare should dictate the decision.

While some conditions are uncommon, to rare, in the horse (uterine torsion or hydrops conditions), others are relatively common (placentitis). It is a good idea for broodmare owners to be just a little more diligent in observing their mares for signs described in this article. Early notice of problems may allow early diagnosis and treatment, leading to a better outcome...a live foal and a healthy, fertile broodmare.