

Five Factors that Impact Gestation, Foaling (AAEP 2012)

By Stacey Oke, DVM, MSc • Feb 19, 2013 • Article #31333



Photo: Anne M. Eberhardt

Breeders spend a substantial amount of time contemplating the logistics of breeding, such as choosing the stall and where and who will be performing the reproductive work. But once a mare is in foal, a number of things can derail the pregnancy if veterinarians and horse owners don't keep a close eye on the mare's progress. Sometimes, simply knowing the threats and being prepared to handle them can give a pregnant mare her best chances at calving and delivering a healthy foal, noted Juan Samper, DVM, MSc, PhD, Dipl. ACT, of JCS Veterinary Reproductive Services Ltd., in British Columbia, Canada, during his presentation at the 2012 American Association of Equine Practitioners' Convention, held Dec. 1-5 in Anaheim, Calif.

During his presentation Samper described five important factors for breeders and owners to consider that can actively impact pregnancy, along with how to respond to them:

Early embryonic problems Cervical incompetence (which can lead to uterine infection) and inflammation of the uterine lining (called endometritis) are major risk factors for losing the pregnancy within the first 60 days of gestation. If the pregnancy does proceed, smoldering residual infections can cause problems closer to term.

"Often these mares are treated ... with supplemental progesterone or progestins," said Samper, which are believed to help maintain pregnancy, but scientific evidence supporting this theory is lacking.

Metabolic and endocrine conditions Insulin-resistant mares might fail to cycle appropriately, which can negatively impact their ability to conceive in timely fashion. Further, pregnancy exacerbates insulin resistance and can contribute to obesity, laminitis, and chronic infections. Identifying affected mares can help owners and caretakers manage these horses properly, making dietary changes and other necessary adjustments.

Musculoskeletal abnormalities. If broodmares were previously athletes, they might have been retired due to tendon or ligament injuries or osteoarthritis, for example. Such mares might experience stress and pain, which can negatively impact gestation. Further, if broodmares are unfit, they could be at risk for abdominal muscle or prepubic tendon rupture, which can complicate foaling. Treatment is based on the underlying condition, but can include non-steroidal anti-inflammatory drug administered long-term, steroids injected intra-articularly (into the joint), and appropriate exercise to maintain body condition/muscling.

Prepartum conditions Colic in the last stage of gestation is a major, and not uncommon, concern. Further, if mares have endometritis at the time of breeding, they could have a higher risk of developing placental infection (placentitis) in late gestation. Another concern is too little or no milk (colostrum) production very late in gestation (peripartum), sometimes due to equine Cushing's disease treatment (with pergolide) or to fescue toxicity, for example.

Postpartum conditions All mares should be examined within 24 hours of foaling, but it's especially important to ensure those experiencing dystocia (difficult foaling) undergo additional vet checks to ensure they are producing adequate milk and are not developing uterine infections (metritis).

Samper concluded, "Older mares and those that were difficult to get pregnant are often at an increased risk of developing gestational problems. Although not all mares will get pregnant in a given season, the chances of successful impregnation and foaling are increased when mares are bred at dedicated facilities with competent veterinarians and technicians."

Considering the five above-listed conditions and actively treating affected mares will likely improve fertility rates and minimize fetal losses.