

Tacoma Equine Hospital

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Breeding Basics

By Diana Rawstrom, VMD

Breeding your mare for the first time is a fun and exciting endeavor! But it is not one that should be undertaken lightly. This article will attempt to help you decide whether breeding is right for you by explaining what will happen, what could go wrong, and what you can do to make the process go as smoothly as possible.

Before you decide to breed your mare, it is worth asking yourself why. Are you interested in the experience (and hard work) of raising a foal from birth? Do you own the coolest mare ever and simply want to see her pass her genes onto the next generation? Does your mare get nasty when she is in heat and you hope to even out her temperament? If this is a case, it may be worth simulating pregnancy by giving her a hormone or having your veterinarian place a sterile marble into her uterus (sounds weird, but it does work!). Pregnancy is natural, but that does not mean it is without risk to your mare. If you absolutely cannot envision life without your mare, breeding may not be for you, as there are potentially fatal complications of pregnancy.

Another component of the decision is whether your mare is actually capable of becoming pregnant. A breeding soundness examination by your veterinarian in late winter will help to identify and correct potential problems. The breeding soundness exam begins with a good physical examination. Mares that are both over- and underweight can have problems conceiving, and overweight mares are at higher risk of having twins. If her teeth are due to be floated, this should be done prior to breeding as there is a small risk associated with floating during the pregnancy. Mares that have had pelvic injuries are at higher risk for dystocia (difficult birth). Older mares tend to be more difficult to get in foal. Abnormalities of conformation of the vulva may necessitate a minor surgical procedure called a Caslick's operation after your mare is in foal to prevent infections and abortion. Palpation and ultrasound of the uterus, cervix, and ovaries will help to identify abnormalities including ovarian tumors and endometrial cysts. Subclinical uterine infections that can prevent conception are not uncommon in mares, so it is worth culturing the uterus for bacteria at the breeding soundness exam to rule out this problem.

Now that you know your mare is capable of becoming pregnant, she will need a stallion. If you plan to register the foal as a certain breed, be sure you know the rules that govern registry for that breed. For example, to register a Thoroughbred with the Jockey Club, a Thoroughbred mare must be bred by live cover with a Thoroughbred stallion. Most other breed organizations allow artificial insemination by a veterinarian. The advantages of artificial insemination include less risk of injury to the mare and the stallion and the ability to breed with a stallion from out-of-town without shipping the mare.

The normal mare's cycle lasts 21 days – but remember, not every mare reads the book! Signs that she is in heat usually last 3-8 days and include behavior changes, “winking” her vulva, squatting and urinating, tail raising, and willingness to accept the stallion. Obviously, these will be most apparent in the presence of a stallion, but some mares will show signs of heat or “tease” in the presence of geldings as well. When the mare is in heat, she is under the influence of estrogens that are working on the ovary to build a follicle that will be ovulated about 24 hours before she stops showing behavioral signs of heat. Your veterinarian's job is to help time breeding of your mare as close to the time she ovulates as possible without missing the

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ovulation. Daily rectal ultrasound examinations are recommended when she is in heat in order to determine the best time to order semen and inseminate. If you cannot tell when your mare is in heat, your veterinarian can perform a rectal ultrasound at any point in her cycle and tell about where she is. If she is not in heat, it is possible to manipulate her cycle with hormones to bring her into heat early, also known as “short cycling.”

Ideally your mare should be checked for pregnancy with a rectal ultrasound examination at several key times during her pregnancy. The first of these checks should occur 17-23 days after she is bred to confirm that she is pregnant but does not have twins. The advantage of checking her at this time is that if she has not taken, it will be possible to catch her just in time to breed her again. A check at day 28-30 will allow a second chance to detect twins while it is still possible to do something about them and still have a good chance of having a normal foal. Another check between days 42-60 will confirm that the pregnancy is developing normally.

Now that your mare is pregnant, the waiting begins. The average length of pregnancy is 340 days (about 11 months) in the mare, but the “normal” length of pregnancy for your particular mare can be anywhere from 296 days (especially if she is a mini) to over 400 days! Vaccinations should be given against rhinopneumonitis, which may cause abortion, at the third, fifth, seventh, and ninth months of pregnancy. The mare’s annual vaccines (including flu/rhino, West Nile virus, tetanus, eastern and western encephalitis, and Potomac horse fever) should be boosted 4-6 weeks prior to her expected due date in order to produce antibodies to go into the colostrum to protect the foal.

It is possible for your mare to lose the pregnancy at any point, and this may occur without any obvious sign of a problem. If your mare does abort and you find the fetus, it is important to separate her and the aborted fetus and fluids from any other pregnant mares on the farm. In some cases it is possible to determine the cause of the abortion by examining the fetus and placenta, so place them in a plastic bag and keep cool until your veterinarian can take a look.

Problems to watch out for during this period include colic, premature udder development, sudden dropping or distension of the abdomen, abortion, and any vaginal discharge. Call your vet if you notice any of these. Mammary development should normally occur 3-6 weeks before she gives birth, and the teats should “wax” six to forty-eight hours prior to foaling in most mares. Do not milk the mare when you see this occur, as her milk is now valuable colostrum that the foal needs to protect against disease during the first months of life.

The final step in the pregnancy is the actual birth of the foal. Please see our previous newsletter entitled “Preparing for the Little Ones” on our website (www.tacomaequine.com) for information about labor and the first few weeks of the foal’s life.