

FIX HER IN THE FALL

By Michelle LeBlanc, D.V.M., with Christine Hamilton

So your mare didn't get in Foal this year? If you don't know why, don't wait until next year's breeding season to figure it out. Any mare that doesn't get pregnant and has been bred more than two times or that suddenly ends up open needs a complete reproductive exam in late summer or early fall if you want to breed her next year, says Michelle LeBlanc, DVM, of Rood And Riddle Equine Hospital

Uterine Cyst

A uterine cyst is not a disease process in and of itself. It's a clinical sign that the mare has a problem with physical "clearance" (or drainage) of her uterus. It's a blocked lymphatic channel.

The uterine wall is drained by the lymphatic system. When a mare comes into heat, the uterine wall fills with edema (or fluid). When she goes out of heat, progesterone starts to rise, and the edema is removed from the wall via the lymphatics.

Lymphatic channels are similar to the blood channel system because they go throughout the body's structures and organs. However, unlike blood vessels, lymphatics have no muscle in their walls. The only way they drain is that the muscle around the lymphatic channel has to contract.

If the uterine muscle around a lymphatic channel is not contracting properly, fluid pools at that point in the uterus. The lymphatic fluid pushes its way through the epithelial cells, and a cyst forms there in the uterine lining.

Why is it a problem?

Some scientists think if cysts are very big, they interfere with embryo migration and pregnancy. Others aren't sure.

Cysts can make it difficult to see whether a mare is pregnant on an ultrasound scan. Because cysts look similar to embryos, they interfere with the veterinarian's ability to diagnose pregnancy.

However, if you map cysts out on a chart at the beginning of the breeding season and know where they are, you can refer to that map when you do your pregnancy check. An embryo is going to move and a cyst won't, so you record where it is the first time and then check a second time to see whether it moved.

How do you fix it?

You can have cysts removed, but the mare still has a significant drainage problem.

What you have to do is treat the mare appropriately when she comes into heat. You use oxytocin and prostaglandins to make the uterus contract after she has been bred and clear the fluid out.

My rule of thumb is, if I'm going to remove cysts, there must be a number of them, and they should be more than 35 millimeters in size.

If you remove cysts, they'll probably grow back. When the mare comes back into heat and the uterine wall fills with fluid again, the cycle starts all over again.

Urine pooling

Urine pooling happens when urine falls back toward the horse's head, instead of coming out via the vulva.

Most mares pool urine because of poor conformation or because of a large, heavy uterus.

Anatomically, the whole reproductive tract is one continuous sheet of tissue. Going from the outside in, the vulva is attached to the vagina, which is attached to the cervix, which is attached to the uterus. The uterus is slung from the mare's body wall by the broad ligaments. It's all one piece.

The urethra (though which urine leaves the body) comes into the floor of the vagina right at the brim of the pelvic bone. If the uterus gets heavy and the urethra is pulled down toward the cervix when the mare urinates, some of the urine flows into the vagina.

Certain mares have conformations that lends themselves to pooling urine (see “Fertile Conformation,” April 2005, the *Journal*, page 46, or online at www.aqhajournal.com), particularly mares with flat croups and pelvises that are flat, instead of tilted down toward their hocks.

Mares can also pool urine if they’re extremely thin. There’s a fat pad on the floor of the vagina that helps maintain the correct position of the urethra.

If the fat pad disappears because the mare loses a lot of weight, then the opening of the urethra again is pulled lower than the pelvic bone, and she’ll urinate in herself.

Why is it a problem?

If urine gets into the uterus, it irritates the uterine lining and it kills semen. You can get some mares that pool urine pregnant, but pregnancy rates will be better if you fix the problem.

How do you fix it?

For a thin mare, get the weight back on her.

You can also have a surgical procedure done called a urethral extension. A tunnel is made using tissue in the vagina to lengthen the urethra, so the urethral opening occurs at the lips of the vulva. It has about a 70 percent success rate.

Most mares simply need time. I might give mares 30-45 days past the foaling date to give the uterus time to reduce in size and to see whether the mares quit pooling urine. If that doesn’t work and they have to be bred, I lavage them with saline one hour before I breed them and breed them when there is no urine in the uterus. The lining might be irritated, but at least there’s no urine. Then, if a mare still pools urine in her next cycle, I recommend the surgery.

In the fall, you either have to put weight on them or have the surgery.

Cervical Tear

There are three major injuries that can occur to the cervix: overstretching, tearing or adhering to the vaginal wall.

If the cervix doesn’t open or if the foal is bigger than the opening, and you pull the foal, you overstretch the whole tube and damage the muscle. Then it heals back with scar tissue, and it has lost its ability to close properly. Those are extremely hard to repair so that the mare can have another foal.

The second type of injury happens when the foal’s foot catches on part of the cervix during foaling. The foal’s foot tears the floor of the cervix on its way out. The injury can occur when people pull or when the foal is big.

The cervix can also develop an adhesion. If the outside of the cervix tears a little and bleeds, it might adhere to the vaginal wall. That adhesion takes away the cervix’s flexibility, and it can’t move like it needs to. The adhesion can pull on the cervix so it can’t close.

Why is it a problem?

This is the most frequently missed abnormality because the condition can be very subtle, but it can cause major problems. If the mare tears the cervix, the likelihood of that mare carrying a foal is slim.

The cervix has to open wide for the foal to come out and then it has to close again.

If the cervix doesn’t open and close properly and at the right time, you either end up with uterine infection, or, if mares do get pregnant, they abort early.

How do you fix it?

When cervixes overstretch, I give them a lot of time. I rarely get the mares pregnant that year. It’s the very worst lesion, because the uterus remains dirty because the cervix doesn’t close. It can also affect a mare as a candidate for embryo transfer.

With a tear, you can go in and repair it surgically, freshen up the torn edges, and suture the cervix back together.

With an adhesion, you snip it off and dissect it out and treat it for 10 days with an ointment so it doesn’t reform.

Cervical tears need to be evaluated when the mare is not in heat. That's why they're so often missed: If you look at the cervix when the mare is in heat, you often won't see the tear because the cervix is relaxed. When the mare is not in heat, it should be very difficult to get a finger in the cervix.

The cervical wall should be the same thickness all the way around and there shouldn't be any thin areas. A thin area indicates that she tore in that place.

When you put your second finger in the cervix, take your thumb and run it along the outside of the cervix. There should be at least an inch of tissue that's not attached to anything in the vagina.

A DIRTY* MARE

The most common indication that a mare has a reproductive problem is an infection and/or inflammation in her uterus.

"Most infections happen from the outside in," Michelle LeBlanc, D.V.M., explained. "They usually indicate that one of the anatomical parts of the reproductive tract is not working properly."

With most mares, if you breed them and they don't get pregnant and have a low-grade infection, they can clean themselves out in 45 days.

But say you breed in June and the mare doesn't get pregnant and you quit for the year. You really need to have a veterinarian look at her again in August. If she's still dirty then, you've got a problem.

If her normal immune system was working properly and she was not continuing to contaminate herself, she'd clean herself out. If they don't clean themselves out, something is wrong.

"If you let it go, and she incubates that infection through the off-season," LeBlanc continued, "she's not going to get sick systemically, but she will be dirty next spring and she won't get pregnant then, either. That's why you need to work them up now and not wait until December, or early spring."

"But you don't just treat the infection, you figure out why they are dirty."

* Reproductively speaking, a "dirty" mare is a mare with a uterus infected from bacterial, viral, or fungal contamination. It's caused by a number of things, including a cervical tear that leaves the uterus continually exposed to bacteria or refluxing urine in the uterus.