

Vibrio:
What is it, how does it affect my herd and what can I do about it?
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What is Vibrio?

We usually refer to the abortion disease of cattle caused by the bacteria *Campylobacter fetus ssp. venerealis* as "vibrio abortion". The old name for the bacteria was vibrio fetus and the name of the disease has remained even though the bacteria changed. This bacterium infects the uterus, placenta (cleanings) and fetus, causing an inflammation of the uterus, placenta and fetal liver. One of the members of this family of bacteria may cause cattle abortion and a severe intestinal disease in humans (vibriotic dysentery), so aborted fetuses should be handled with great care.

What signs might I see in my herd?

Infection with vibrio causes infertility, early embryonic death and sporadic late term abortion. A vibrio problem in a herd usually presents as cows that did not get pregnant when they should and have a longer calving interval than expected. You may or may not see abortions. Cows will cycle, may settle but early in the fetal development the fetus dies, and is reabsorbed. All you see is a cow that should have been bred, but instead is still cycling. It will take 40 or more days from the time of infection before returning to normal cycling. Some cattle are so severely affected they may never settle again. This makes it a difficult disease to diagnose because there are so many reasons for cows to cycle late and have a calving interval of more than 12 months. If we are not keeping good records of calving, we may not notice which cows took more than 12 months to produce another calf. It is an easily overlooked disease unless an aborted fetus is noted. Vibrio abortion is more common in heifers than cows.

What can I do about vibrio abortion?

If an abortion problem exists you should have your veterinarian evaluate the problem and if needed submit placenta, aborted fetus, and serum from the dam to the diagnostic lab. Vibrio causes some specific damage to the fetus and with a good submission, a diagnosis can be made. *Campylobacter fetus ssp. venerealis* is a specific bacterium that only lives in the bovine reproductive tract and is not known to cause disease in any other species. That means that vibrio infection is only caused by spread during breeding. Like most cattle diseases, the primary way we infect our herd is to purchase infected cattle, not isolate them before we introduce them into our herd and not vaccinate newly purchased cattle.

There are currently over 40 products on the market that contain *Campylobacter fetus* (vibrio) either alone or in combination with Lepto and other bacteria and viruses. These vaccines do a good job of protecting female cattle from vibrio. Bulls may require several additional doses to be fully protected. Vibrio abortion has not been a major problem to our cattle industry because as an industry we have done a good job of preventing infection with vaccination. We do see occasional herds that are not vaccinated and have a large number of heifers and/or cows that have reproductive failure due to infection with vibrio. The vaccination protocol for vibrio is a primary vaccination of heifers before breeding. Depending on the product this may be one or two doses two or more weeks apart. Annual vaccination of the cowherd and bulls is generally recommended. Other diseases that are considered likely to result in breeding problems in our area are IBR, BVD, and Lepto. Annual vaccination with products containing all of these is highly recommended. Newly purchased cattle should be vaccinated when they first arrive and isolated from your herd for 30 days. Your local veterinarian may be the best source of information on what diseases are prevalent in your area and herd.