

Reproductive and Breeding Problems in Dogs

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Reproductive problems in dogs range from infertility, to abortion, to difficult deliveries.

Infertility

A common reason for a bitch not to become pregnant is poor breeding management. If breeding takes place when she is not fertile, she will not become pregnant. Length of cycles vary from bitch to bitch, so it is important to breed a bitch according to her cycle, not a standardized schedule. If an experienced male is being used, it is ideal to allow him to breed her every other day as long as she is willing to stand. This may begin on day 3 of her cycle or day 21. Vaginal cytology and progesterone assays may be done to help time the breedings, especially if [artificial insemination](#) is being performed.



Some bitches will not allow certain dogs to mate with them. This may be due to the male being a housemate or not having met previous to the breeding time. Some bitches just do not like certain males, period. Some submissive males will not mate with a more dominant female. If either the male or the female refuse to breed, it may be worth trying another male to see if she has a preference. Bitches may be bred by more than one dog resulting in one litter of puppies with more than one sire.

Overweight or underweight bitches tend to have more problems conceiving and delivering. Other health problems, especially hormonal disorders such as [hypothyroidism](#) can also affect fertility.

Males may also have infertility problems including a decreased sperm count, poor sperm morphology (structure), or poor sperm motility. These may be genetic problems or due to injury or illness. Collecting a semen sample from the male and having it analyzed should be an early step in determining the problem. Infections such as [brucellosis](#) are capable of causing sterility also.

Problems such as poor timing of breeding are usually easy to fix. Other problems are more difficult. Reproductive specialists are available at the veterinary teaching hospitals for assistance, if needed. Give careful thought to attempting to obtain a successful pregnancy in dogs with infertility problems. The infertility problems that the male or the female have may be passed genetically to the offspring and the trait carried on to future generations.

Abortion

Spontaneous abortion and/or resorption occurs. The frequency is unknown, as no reliable tests are available to detect pregnancies early. The resorption or abortion of fetuses may be due to a number of causes including fetal defects incompatible with life, abnormalities in or damage to the uterus, ovarian failure to maintain progesterone levels, infections, trauma, too strenuous of exercise or malnourishment. Usually, if the litter is resorbed, no signs are seen, as it is early in the pregnancy. If the litter is aborted, a vaginal discharge, contractions, or expulsion of the fetuses may be seen. She may eat all the evidence before it is ever discovered. Some bitches may abort part of a litter and carry the rest to term - remember, viable fetuses may be present after an abortion. This can be determined using ultrasound to find heartbeats. If symptoms are noted that indicate the possibility the bitch is aborting, very little is available in the way of treatment. Severely restrict her exercise and give antibiotics, if an infection is the cause. Tests are available to check progesterone levels. She should be examined for infections in the uterus and for retained fetuses or placentas.

Dystocia: Difficult labor and delivery

Although most bitches deliver their puppies without any problems, some do have [difficult deliveries](#). This may be due to a number of causes including large fetus size, small pelvic size in the dam, malposition of the fetus, uterine inertia, or breed.

Eclampsia



Photo by Ronald W. Glaman

[Eclampsia](#) is an acute, life-threatening disease caused by a decrease in the amount of calcium in the bloodstream. It is seen mostly in small to medium breeds in early lactation, or rarely, in late pregnancy. It occurs due to the loss of the calcium from milk production, poor uptake of calcium by the intestines, or poor nutrition. Symptoms include a change in behavior, restlessness, nervousness, panting, pacing, whining, decrease in maternal instincts, and tetany. (Symptoms of tetany include irritability, drooling, stiffness in gait, loss of coordination, and pain on walking.) Eclampsia may progress within minutes to hours to muscle spasms, inability to stand, fever, increase in heart rate, and seizure-like activity without loss of consciousness. Death may result from respiratory depression or hyperthermia (increase body temperature) resulting in cerebral edema. Diagnosis is made by symptoms, the timing with pregnancy/lactation, and calcium levels in the blood.

Treatment should be sought immediately. It is treated by supplying calcium directly into the vein while monitoring for heart

rate or rhythm abnormalities and temperature changes. Oral supplements are started after the initial episode is over and the puppies are supplemented with bottle feeding and started on solid food as soon as possible.

Mastitis - infection of the mammary glands

Mastitis is an inflammation and infection of the mammary glands. If it is localized to one gland, the bitch may show no signs of illness. If it spreads throughout the mammary gland, she may show signs of illness. The mammary glands should be checked daily for signs of warmth, pain, or hardness. Milk from each nipple needs to be checked daily for color and consistency. Milk from glands with mastitis may be off-color and clumping. She may have a fever and refuse to allow the pups to nurse. Diagnosis is made on a physical exam. Treatment depends on the severity of the condition and may include antibiotics, hot packing the affected glands, and milking out the affected glands. Puppies can continue to nurse from the affected gland if the milk remains normal.

Vaginal discharges and uterine infections

Metritis is an infection and inflammation that can occur in the uterus. Symptoms generally appear 3-7 days postpartum and include fever, foul-smelling vaginal discharge, lack of appetite, listlessness, lack of maternal instincts, and decrease in milk production. Diagnosis is confirmed through bloodwork and x-rays. (X-rays are done to make sure no fetuses have been retained.) Treatment consists of antibiotics and fluid therapy. Ovariohysterectomy (spay) is curative, if the bitch is able to handle the surgery.

[Pyometra](#) is an infection in the uterus in which the uterus fills with pus. It typically occurs 2-12 weeks after a heat cycle. Symptoms include vomiting, listlessness, and an increase in drinking. If the cervix is open, a discharge from the vagina is seen. If the cervix is closed, no discharge is seen. Diagnosis is based on a physical exam, blood work, and x-rays. The ideal treatment is to perform an ovariohysterectomy (spay). If the condition is not caught early, she will need to be stabilized before surgery is attempted. If the bitch must be kept for breeding, antibiotic therapy could be tried, but is not very successful.

Subinvolution of placental sites occurs when the uterus does not fully repair itself after delivery. This results in a vaginal discharge beyond the normal 6 weeks postpartum. Treatment is usually unnecessary, as the bitch is healthy and able to become pregnant again. Subinvolution of the placental sites, metritis, and pyometra may all have a vaginal discharge. A proper diagnosis is necessary, as metritis and pyometra need to be treated.

Uterine prolapse

Uterine prolapse occurs when the uterus is pushed out of the body through the vagina. Treatment consists of manual replacement of the uterus or an ovariohysterectomy (spay).

Retained placenta

Retained placentas are rarely a problem. When it is seen, it is most often in toy breeds. Usually, the placenta is passed within 15 minutes of each puppy and the bitch may eat it. Treatment may include an [oxytocin](#) injection.

Lack of maternal instinct



A lack of maternal instinct to care for the puppies may be due to genetics, the amount of maternal drive the bitch's dam showed for her offspring, illness, or stress due to owner stress or poor environment. Some first time moms will need several days to find out what their role is and need assistance from the owner to figure it out. She may need to be made to lay down for the puppies to nurse and be praised when she shows interest in the puppies. If she is going to come around and care for the puppies, it should occur within several days.