

Dog Breeding Cycles and Seasons

It never fails: when your dream litter is planned, your dog never comes in season. And when you have no intention of breeding, it seems she will never go out of season.

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In prolonged proestrus, the bitch comes into season yet never progresses to standing heat (estrus). That means she won't accept a male, and even if she were forced to mate, won't ovulate so she won't conceive. The condition may occur if estrogen levels fail to rise sufficiently during proestrus, as they normally must do in order to bring on ovulation. As a result, the estrus stage does not follow the proestrus stage. Diagnosis can be made by looking at vaginal epithelial cells, which fail to all be cornified; and by serum progesterone levels, which fail to reach 2 ng/ml. Hypothyroidism can cause prolonged proestrus because abnormally low levels of thyroid hormones can cause increased prolactin levels, which in turn cause decreased levels of gonadotropin releasing hormone which is required for ovulation to occur.

What's worse than a bitch that comes into heat, yet never progresses to standing heat? A bitch that comes into standing heat and stays there, especially if you have a houseful of amorous males. Bitches with prolonged estrus, in which the true estrus phase lasts longer than 12 days, may also never ovulate. Normally, estrogen levels begin to fall at the onset of estrus. They continue to fall while progesterone levels rise throughout estrus. If estrus levels fail to fall, she may remain in estrus. Her vaginal cells will be cornified, she will stand for and accept males, and her vulva will be swollen. Sources of excess estrogen include ovarian follicular cysts and functional ovarian tumors, or less commonly, hypothalamus or pituitary gland tumors. Liver shunts can also cause prolonged estrus, due to delayed metabolism by the liver of circulating hormones.

Sometimes what appears to be persistent estrus may instead be another condition that leads to vaginal discharge or bleeding. Pyometra (infection of the uterus) or vaginitis can cause vaginal discharge, and also male attraction. Allowing a bitch to continue without treatment can be life threatening. Untreated pyometra can be fatal.

Estrogen toxicity, which can arise from ovarian tumors, can also be fatal because it causes bone marrow suppression, which in turn causes anemia and platelet deficiency. Any bitch with persistent estrus should get a complete veterinary exam that includes blood work, vaginal smears, and ultrasound imaging. Blood work may detect anemia, platelet deficiencies, or increased white blood cell counts indicative of infection. Vaginal smears can indicate if a bitch is in estrus. Ultrasonography may detect cysts, tumors, or an enlarged uterus indicative of pyometra. Other procedures may be warranted, depending on what conditions are suspected.

Don't adopt a wait-and-see attitude in cases of abnormal cycling; and don't try hormone therapies unless you know the cause of the problem. If your veterinarian can't find the cause, and if spaying is not an option, consult a reproductive specialist. Your veterinarian should be able to suggest one, or you can contact the American College of Theriogenologists.