

PREGNANCY DIAGNOSIS IN THE BITCH

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Several methods are used for pregnancy diagnosis in the bitch. Some methods, such as evaluation of the teats, weight gain, and abdominal enlargement are not reliable methods of pregnancy detection. More reliable methods include abdominal palpation (at 30 days gestation), measuring the level of relaxin in the blood (after 26 days gestation), ultrasound of the abdomen (starting at 21-30 days gestation), and radiographs (after 45 days gestation). These methods vary in their ability to positively identify the number of fetuses and fetal viability.

Palpation

Small ovoid swellings can be palpated along the uterine horns 21-30 days post breeding. These swellings double in size every week until days 35 to 38; they then become confluent and difficult to differentiate. Palpation is not as reliable as other methods for evaluating pregnancy. It is difficult without experience to determine the exact number of fetuses and fetal viability cannot be verified with palpation.

Relaxin

Relaxin is a hormone that is produced by the placenta and found in the bloodstream of the bitch when the fertilized egg implants in the uterine wall, about 21 days post breeding. This hormone continues to circulate through the blood throughout pregnancy, peaking around day 40 to 50. ReproCHEK is the current test on the market that measures relaxin. This test can be used to determine pregnancy and can be used continuously throughout the pregnancy to verify if a total abortion has occurred. Pseudopregnant bitches do not test positive for relaxin. This test cannot determine the number of fetuses present in the bitch. A false negative is possible if the litter size is very small.

Ultrasound

Ultrasound is the best method used to visualize and evaluate the pups in the womb. Ultrasound is best done 21-30 days after breeding. Ultrasound done prior to 21 days can give false negatives. Ultrasound is a good method of distinguishing between pregnancy and pyometra. Fetal viability can be determined by ultrasound through visualization of the fetal heart. The number of fetuses can be estimated, though it can be less accurate in bitches carrying larger litters, or when done later in gestation.

Radiographs

Twenty-eight days into pregnancy, the bones of the fetus begin to become calcified. At 42-45 days of pregnancy, radiographs can be taken to visualize the pups in-utero. However, for best results, radiographs should be taken more than 47 days post breeding, when fetal skeletons are more readily visible. Radiographs can help determine the number of fetuses, though it is less accurate in bitches carrying large litters. Fetal viability cannot be determined by radiograph unless advanced lesions exist in the fetus, such as skeletal collapse or gas within the fetus.