

PREGNANCY IN DOGS

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OVERVIEW

Pregnancy is the period of gestation when the young are developing in the mother's uterus. Normal gestation in dogs is 58 to 68 days (the average is 63 days).

The litter size in dogs varies from one puppy to more than 17 in some giant breed dogs. Litter sizes are often smaller in young and old animals and largest when the mother is around three to four years of age.

Conditions that may be confused with pregnancy include false pregnancy, mastitis (inflammation of the mammary glands), mammary gland neoplasia (cancer), abdominal enlargement due to fluid accumulation or organ enlargement, or pyometra (infection of the uterus).

WHAT TO WATCH FOR

- Nesting behavior (attempting to make a nest by tearing up papers, blankets, etc.)
- Mothering activity (this may include mothering of shoes, toys and other articles)
- Weight gain (which typically occurs after the 4th week of pregnancy)
- Abdominal enlargement or swelling
- Mammary gland enlargement. The mammary glands may be large and secrete milk or serous fluid.
- Abnormal behavior. If your dog does not eat, acts lethargic or you notice excessive vaginal discharge, please call your veterinarian as soon as possible.

DIAGNOSIS

Your veterinarian may perform some diagnostic tests to confirm your dog's health and to determine if she is pregnant. These include:

- A complete medical history and physical examination
- Evaluating your dog's heat cycle and any potential breeding episodes
- Abdominal palpation (technique of examining the organs and other parts of the body by touching and feeling). However, puppies can seldom be felt until at least 26 to 35 days after breeding and fetuses can be difficult to feel in some dogs.
- Abdominal radiographs or x-rays. The skeleton of the puppy is visible on an X-ray after 45 days of pregnancy. They will also show other abnormalities, such as organ enlargement or abnormal fluid accumulation, are present.

- Abdominal ultrasound can be used to diagnose pregnancy after 21 to 24 days post breeding. This is a safe and excellent way to diagnose pregnancy and verify the health of the puppies. Ultrasound can also be used to estimate litter size.

Your veterinarian may recommend other diagnostic tests (not typically done with a normal pregnancy) on a case-by-case basis. Tests may include:

- Blood work. Complete blood count (CBC) and biochemistry (bloodwork to evaluate the function of the liver and kidneys). There are no practical blood or urine tests available to diagnose pregnancy in dogs.
- Urinalysis
- Heartworm checks (a good idea in all dogs not on prevention)

TREATMENT

- Normal pregnancy does not usually need any “treatment”; however, it is important to see your veterinarian for regular check-ups to ensure the health of your pet.
- It is extremely important that your dog be cared for properly during the pregnancy.
- If you decide that you do not wish to have further litters, or if your pet has significant problems during the birth process, you may wish to have her spayed to prevent further pregnancies.
- Have your veterinarian recheck your dog one week before the due date. The doctor may then palpate for puppies and perform a pelvic exam to establish a rough estimate of pelvic canal size vs. puppy size to try to anticipate problems that might occur during whelping.

HOME CARE

Good nutrition is essential for healthy puppies and mothers so feed your pet a high-quality diet formulated for pregnant or nursing dogs.

- Although nutritional needs change little during the first 4 weeks of gestation, your dog's nutritional needs nearly double during the last 5 weeks. Your veterinarian may recommend a special diet and/or vitamins for your dog.
- Be sure to provide the increased amounts of food she needs in several small meals each day, rather than feeding it all at one time. It is particularly important to feed frequent small meals during the last part of gestation. A pregnant bitch may not feel like eating much as delivery nears because her abdomen is full of puppies, which leaves little room for the stomach to enlarge. Continue feeding a high-quality diet until after the puppies have been weaned.
- Be sure that fresh water is always available, since pregnancy increases your pet's fluid needs.
- A moderate amount of exercise is recommended during pregnancy; however, strenuous exercise may be harmful. Short periods of gentle play and short walks are beneficial. After the pregnancy check at 26 to 35 days, you should begin exercising your pregnant pet five days a week for a half hour each time.
- If you would like to know more precisely when delivery is near, check the rectal temperature of the mother twice daily from the 58th day of pregnancy until labor begins. Normal rectal temperature varies between 100.5 and 102.0 degrees Fahrenheit. Within approximately 24 hours of the onset of labor the rectal temperature drops nearly two degrees in most dogs.

WHELPING (BIRTH OF THE PUPPIES)

The more that you can learn about whelping the better prepared you will be for any difficulties that might occur. Once you know that your bitch is pregnant, you should begin preparing for the puppies delivery.

- Provide a whelping box for the mother to begin sleeping in. This will help ensure that the puppies are born in an area that you have chosen. The width of the whelping box should be approximately equal to the length of your dog (including tail) and 1 1/2 times as long. Place a 1 by 4-inch rail around the inside of the box approximately 4 inches from the bottom of the box. This helps prevent the bitch from lying on her pups. This box should be relatively small, with sides six to eight inches high (to keep the pups from crawling out of the nest). The box should be bottomless. The floor should be lined with plastic then paper, and finally with a flannel material on the top. Tack the flannel to the side of the box after being stretched tautly. The new mother likes to paw in attempts to make a nest. These wrinkles can lead to folds, which can cover and suffocate the pups. Pups nurse until they are tired, not until they are full. The use of flannel sheeting allows good footing for the pups to nurse. Excessive slipping on a slick surface can lead to exhaustion and less nursing. The flannel blanket will need to be washed every day.
- Provide a heat source in the whelping box during the first few weeks of the puppies' lives. A small light (e.g., a trouble light) placed above a corner of the whelping box is usually adequate, but will depend on the ambient temperature where the box is housed. Pay careful attention to the temperature in the whelping box. You can attach a thermometer to the whelping box to help ensure that the box is maintained at a temperature of 80 to 85 F for the first five days of the puppies' lives. The temperature can then be decreased one degree per day after day five. This can be accomplished by raising the height of the light. Place the box in a secluded yet familiar area of the home, away from the family traffic, to allow the mother solitude.