

### Canine pregnancy and whelping

Gestation length in the bitch averages 63 days, with a variation between 56 and 72 days if calculated from the day of the first mating to parturition. Litter size is also variable ranging from a single puppy to more than 15 in some cases.

We recommend progesterone testing in order to determine when ovulation occurs, this allows us to predict the due date more accurately and in the case of a planned C-section, determine when is the safest time to deliver the puppies.

The vet will discuss the protocol for progesterone testing with you and the number of tests needed will depend on the level of progesterone in the blood.

## **Pregnancy diagnosis**

An ultrasound scan can be performed 28 days after mating (or 30 days after ovulation if this is known). The puppies should be visible at this stage, rarely if there is one puppy at the end of the uterine horn it can be missed. We will offer a free of charge scan 2 weeks later if the initial scan was negative.

### When are the puppies due?

If you measure progesterone then the puppies are due on day 63 (taking ovulation as day 0).

If progesterone testing was not done prior to mating, then you do not know when the pups are due. If you are worried about the pups being overdue or if you are considering an elective C-section a test called a premate test can be used to work out when the progesterone level drops which indicates that the pups are due.

You can also measure rectal temperature twice daily in the last week of pregnancy because this usually drops 1-2 degrees in the 12-24 hours before whelping.

## Signs of impending whelping

- The bitch may become restless, seek seclusion or be excessively attentive for several days before parturition
- She may show nesting behaviour, particularly 12-24 hours before parturition
- She may refuse food, however some bitches continue eating right up until whelping

• Milk production is usually noted 12-24 hours prior to parturition

## First stage labour

- Normally lasts between 6 and 12 hours
- Vaginal relaxation and intermittent uterine contractions with no signs of abdominal straining are present
- The bitch may appear uncomfortable: panting, glancing at the abdomen, rearranging the bedding, shivering and occasional vomiting may be observed

## Second stage labour

- Usually lasts 3-12 hours
- The first foetus moves into the pelvis and intense uterine contractions occur with visible abdominal straining.
- At this stage, before puppies are seen, the first foetal sac or "waters" may break, and a clear fluid discharge may be noted
- The first puppy should be delivered within 4 hours of the start of second stage labour. The puppy may be delivered in a sac which the bitch will break and then lick the puppy to stimulate it and break the umbilical cord. If the bitch does not remove the membrane from the puppy you should remove it from around its mouth to enable it to breathe. It may help the puppy to start breathing if you squeeze fluid from its nose and mouth by gentle massage towards the nose. Rubbing the puppy gently with a towel may also help but it is better to encourage the bitch to do both of these things herself if possible.

#### Third stage labour

- The passing of the placenta(s). A placenta may be passed 15 minutes after the delivery of each puppy, or several may be passed after a group of puppies is born.
- The bitch may eat the placentas; this is not usually harmful, but occasionally vomiting and diarrhoea will develop as a result.
- After whelping, the bitch may have a greenish coloured discharge which may be present for up to three weeks. This is the remaining foetal and placental fluid and is normal.

#### When do I need to call the vet?

- First Stage labour (restless and not eating) lasting over 24 hours.
- Strong and regular contractions (every 2 to 3 minutes or more frequently) for over 20 minutes with no puppies produced.
- Presence of green vaginal discharge (could indicate placental detachment) with NO contractions being noted or with contractions going on for more than 15min since discharge first seen without a puppy being produced. Especially if bitch has been bred several times or if she is over 4 years old.
- More than 2 hours between puppies

- Visible puppy but not being delivered (i.e. stuck)
- If bitch at all unwell.
- Ovulation date known and day 63 reached without pups arriving.

N.B. Green discharge seen during labour is normal as individual placentas detach soon after the puppy is delivered.

Difficult births requiring veterinary intervention and/or caesarian section need to be seen sooner rather than later, so please call for advice if you are at all worried.

If veterinary attention is required it will usually be necessary to bring the whelping bitch into the surgery rather than arranging a house visit. This is because difficult births need access to the full range of emergency equipment in the veterinary surgery e.g. ultrasound machine to examine the wellbeing of the foetuses, Xrays, oxygen for struggling puppies, and of course operating facilities should a caesarian section be required.

# After whelping

- Check that the bitch has milk by gently squeezing her nipples. The puppies will cry if they are hungry. Try to encourage them to feed by holding them onto the nipples if they don't seem to be getting the hang of it. It is particularly important for the puppies to take the first milk (colostrum) as this contains antibodies to protect them against infection.
- Your vet will be happy to examine the bitch and puppies after delivery. This is useful to check on the general health of the bitch, and in particular the reproductive tract and mammary glands. Your vet will also be able to check the puppies for any problems such as cleft palate or hernias.
- Check the bitch daily to ensure that her mammary glands haven't become inflamed, reddened or painful. If you suspect a problem consult your vet as this could be mastitis (infection of the mammary gland) and requires veterinary attention.
- Healthy puppies are mobile and crawl around. They sleep a lot and feed frequently. At birth their eyes are closed and will open when they are 10-14 days old. They will begin to walk at about three weeks of age.
- If you are concerned that a puppy is not behaving normally, or is not feeding
  well, then contact your vet without delay. Poorly puppies can deteriorate
  quickly.
- Puppies can be treated for fleas from 2 days of age with Frontline spray (not spot-on), and should be wormed from 2-3 weeks of age with a veterinary licensed product for roundworms. Worming should be repeated every 2 weeks up to 8 weeks of age.
- Weaning occurs from 4-6 weeks of age and small amounts of puppy food in a shallow bowl should be gradually introduced
- Puppies can be vaccinated from 8 weeks of age