



## ***THE PREGNANT BITCH & WHELPING***

The normal length of pregnancy in dogs is 65days (approximately 9 weeks) after what is called the LH surge (Luteinising hormone) - called “Day 0”. This hormone surge occurs 2 days before ovulation, and the bitch may allow mating up to 5days either side of ovulation. This explains the variation in gestation length, because most people call the last day of mating, if known “Day 0”, when it could be anywhere between “Day -3” or “Day7”. Therefore any estimated date for whelping could be out by 7-10days.

### ***PREGNANCY DIAGNOSIS:***

- Abdominal palpation gives an indication of enlarged uterine horns but it is difficult to differentiate between pregnancy and other conditions like uterine infections.
- Rapid ImmunoMigration test (RIM) detects Relaxin, a hormone that is produced in pregnancy. It is a fast reliable blood test but may produce false negatives if the bitch is tested too early as it only appears in the blood 26-31 days after the LH surge. The manufacturer claims it can detect pregnancy 22-27days after breeding but it is more reliable when you wait at least 30days after breeding and doesn't indicate whether the fetuses are all viable/healthy.
- Ultrasound is the preferred method of detection. Specialists can detect 1-2mm vesicles in the uterus as early as 19-20days after LH surge but generally it is better to wait until about 30days after LH surge. By then, in each foetus, the heartbeat is detectable. After 30days, depending on the foetus' size, what organs are visible etc, the age (and therefore predicted whelping date) can be estimated.
- It is difficult to estimate the number of puppies from ultrasound as you are looking in a 3d environment. Xrays are good to count (but do not necessarily help to confirm foetal health). This is only possible after 45days post LH surge, once the foetuses skeletons mineralize. Generally we count each skull+spine complex.

### ***DURING PREGNANCY OWNERS SHOULD ENSURE :***

#### **1. *ADEQUATE EXERCISE –***

Bitches can exercise normally for the first 35 days. Taper off exercise as whelping approaches.

#### **2. *FEEDING –***

Feed the bitch her normal balanced diet for the first 6 weeks of pregnancy. You may need to feed the pregnant bitch 2 to 3 times per day, in late pregnancy. Be careful to avoid over-fatness or obesity. Pregnant bitches have increased requirements for quality protein, calcium & vitamins, as well as energy later in pregnancy & when

feeding the puppies. They often lose condition during this time. We recommend switching slowly to a premium puppy food such as “Science Diet” or “Eukanuba” during this time to reduce condition loss & prevent *Pregnancy Toxaemia*. Often bitches will lose their appetite just before whelping.

**3. VACCINATIONS –**

Ensure her vaccinations are up to date. If your bitch has not been vaccinated or is overdue, it is ideal to vaccinate before pregnancy. This is very important as the mother passes a temporary immunity to pups which helps protect pups at a time when they are most susceptible to parvovirus, distemper & other diseases. We can still vaccinate her against parvovirus even if she is pregnant & overdue.

**4. PARASITE CONTROL –**

Regular worming, especially for roundworms & hookworms is important. Worm her for intestinal worms at mating, before whelping & then every 3 months as usual. Monitor weight increases, as you may need to increase the dose for worming or heartworm tablets as she gets heavier. Continue regular treatments for fleas. Be sure the products used are safe for use in pregnant animals. We can advise you as to which to use.

**5. WHELPING AREA / BOX –**

This should be warm, dry & clean. Shredded newspaper or old towels are ideal. Get the area ready about 5 to 7 days before she is due.

**6. CLIPPING –**

Long haired dogs may need to be clipped along the abdomen & around the back end before whelping.

**7. WHELPING –**

She may refuse all food for about 24 hours before delivery & become restless. If she has not already done so, she will “nest” in a whelping area by rummaging & tearing up paper. She may also start pacing, looking at her flanks / belly or vomit.

Most bitches are capable of whelping with no help, although it is best to keep a distant eye on them to watch out for problems. Avoid interfering too much or having a crowd of people watching. This can distract her from the job at hand. She usually lies on her side or front to deliver, & contractions of her uterus carry a pup to the cervix & into the vagina. The water bag that surrounds the pup bursts & fluid flows from the vulva. The bag may bulge through the vulva before bursting, & looks like a dark bubble. This bag bursts by itself, or from the mother licking it. The head & legs of the pup should appear shortly after, & the whole pup delivered within a few minutes.

The mother should then lick away the membranes surrounding the pup & bite the umbilical cord. She will lick the pup clean, in turn stimulating it to breathe & sometimes cry. The pup will then search for a nipple. Pups may be born head & sometimes tail first, both presentations are normal. Each pup has it's own placenta. After the birth of each

pup you should observe to see that the placenta comes out with the pup, or soon after. Keep a count of how many placentas come out – they should equal the amount of pups born. A retained placenta can cause a serious infection within the uterus. The bitch may eat the placenta, which is normal but may cause her to vomit.

Most bitches deliver a pup every 15 to 30 minutes after the first, but this can vary & tends to get longer as labour continues. An interval of 1 hour between pups is not uncommon in larger litters, as the muscles of the uterus become tired & contractions become weaker & less frequent.

### ***COMPLICATIONS :***

If the bitch bites the umbilical cord too cleanly instead of chewing, the cord may bleed. If so tie the cord with a piece of sterilised (previously boiled or soaked in antiseptic solution) thread, about 6cm from the pup's body. Then cut with sterilised scissors between the placenta & the thread you have just tied. This can also be done if the bitch does not attend to the cord at all.

If the bitch does not lick the membranes off the pup you must clear them from the pup's head as soon as possible, to allow the pup to breathe. Then present the pup to the bitch to coax her into cleaning the pup & chewing the cord, if she does not respond within a few minutes you must tie off & cut the cord as explained previously. If the pup is partly out but is not completely delivered within a few minutes you may need to help her. Do this by pushing the lips of the vulva back & over the partially emerged pup, a little pressure applied just below the bitch's anus will often stop the pup from slipping back into the vagina. Being very careful, as pups are delicate, grasp as much of the pup as you can with a piece of clean towelling & *GENTLY* pull downwards & out. Avoid pulling on one leg only & attempt to pull with the bitch's pushing efforts. If the pup is stuck gently rock or rotate the pup as you pull.

If the pup is not breathing clear any membranes away from the mouth & rub the pup briskly with a towel. This mimics the action of the bitch's licking. If still not breathing the mucus in the throat will need to be cleared, this is done by holding the pup firmly with both hands & supporting the head – then “swinging” the pup in a downward half circle. Start with the pup held high above your head, with the pup's head away from you & keeping your arms straight “swing” the pup down to your knees. If it is still not breathing after swinging it several times and rubbing with a towel, mouth to nose resuscitation can be performed. This is done by puffing *VERY GENTLY* into the pup's nose & mouth until the chest begins to lift, do not blow hard as this can rupture the lungs. Persist with this for about 10 to 15 minutes before admitting defeat.

### ***WHEN TO CALL THE VET :***

- If the bitch is straining for more than 2 hours without any pup present.
- The membrane has ruptured, releasing fluids, but no pup is delivered within 30 minutes.

- There is over 2 hours between pups being born.
- The bitch is not straining at all.
- The bitch goes over 65 days pregnancy.
- The bitch is lethargic or unwell.

### ***AFTER WHELPING :***

Pups cannot control their body temperature so while the bitch is delivering other pups, keep them warm nearby but do not put them on a direct heat source. A warm water bottle covered with towels is ideal. Between delivery of pups, put the pups on the mother to feed as the first milk “colostrum” is rich in antibodies to help their immune system.

After the birth it is best if the mother & pups are checked over by your Vet to make sure there are no remaining pups or membranes inside the bitch, or any deformities of the pups.

Be sure to feed the lactating bitch plenty of food as producing milk takes a lot of energy. Feed her a good quality puppy food several times a day. Make sure all the pups are sucking properly & are getting their fair share ! Watch out for the bitch’s breasts becoming swollen, hot or discoloured – this may be mastitis (inflammation of the mammary glands) & will need to be checked by your Vet.

Also watch out for anything wrong with the bitch, such as twitching, staggering or shaking as a low level of calcium in the blood can cause this & she will need *IMMEDIATE* veterinary attention. Calcium supplements can be used during lactation, but if her main diet is a good quality dog or puppy food she should not need it.

Generally the bitch will let her pups know when she has had enough of their suckling and will start to push them away by about 3-4 weeks, at this point you will need to supplement the pups with semi-solid food (eg: puppy porridge from the supermarket) while they are still partly suckling their mum. At about 5-6 weeks, you can change this food gradually to a puppy wet or dry food (you can soak the dry food in warm water until sloppy to help them eat it).

The puppies must be wormed regularly, particularly for roundworms because most pups are born with them. Worming is recommended for the pups against roundworm & hookworm every 2 weeks from birth until 12 weeks of age. A suitable product for pups should be used, a liquid wormer is easier to give at a very young age. Pups should have their first vaccination at 6 weeks of age.

Any questions still unanswered? Please contact us on 08 9300 2322