



The average length of pregnancy in the bitch is **63 days**, around 9 weeks. Some bitches show all the signs of pregnancy but are not actually carrying any puppies; this is called a false pregnancy. False pregnancy is caused by an imbalance of a hormone called prolactin. The hormone makes the bitch think she is pregnant by producing milk, causing mammary gland enlargement. False pregnancies usually occur 6-14 weeks after the bitch's season. The signs you usually see are nesting and behavioural changes. False pregnancies have evolved from dogs and wolves in packs where only the dominant female gives birth to young; the other bitches have false pregnancies and produce milk so that they can feed the young of the dominant bitch. There are drugs available to treat a false pregnancy once the vet has examined the dog to rule out a true pregnancy.

Preparation for whelping and the puppies

A whelping box should be made for the bitch to nest in; it should be in a warm, quiet, clean and draught proof place. The sides of the box should be high enough to stop the puppies escaping but low enough to allow the bitch to get out. It should be large enough for the bitch to stretch out but not too big so the puppies cannot get too far away from the bitch. The area where the bitch is to whelp and rear her puppies should ideally be kept at 25-30°C; this can be reduced to around 22°C after the first week. A cold puppy will not respond normally and will have problems feeding. It is important the box is in a quiet area because bitches like peace and quiet whilst whelping.



Other useful equipment

- Plenty of newspaper
- Plenty of clean bedding
- A clock, to note when whelping begins, the times different stages of parturition start and the times each puppy is born.
- A notepad, to record the above, this is useful to the vet if the bitch goes on to have difficulty.
- A supply of milk substitute e.g. whelpi or Royal Canin 'Baby dog' milk, this can be given to the puppies if the bitch doesn't have enough milk or there are too many puppies for the bitch to feed herself. This can also be given to the bitch as a supplement.

Stages of parturition

There are three main stages of normal parturition:

Preparation

The bitch may start nesting, be a little more un-

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comfortable than usual and have a clear discharge from her vulva. She may also seek company or want to be in a quiet place. Not all bitches show these signs, this is normal.

First stage parturition

Uterine contractions begin; this can cause increasingly restless behaviour. This can last for 1-12 hours. Milk will be present in the mammary glands. It is not uncommon for the bitch to pant or start to shivering, some bitches may vomit and they often refuse food. During this stage the cervix is dilating to allow the puppies to pass through, some fluid may also be seen at the vulva.

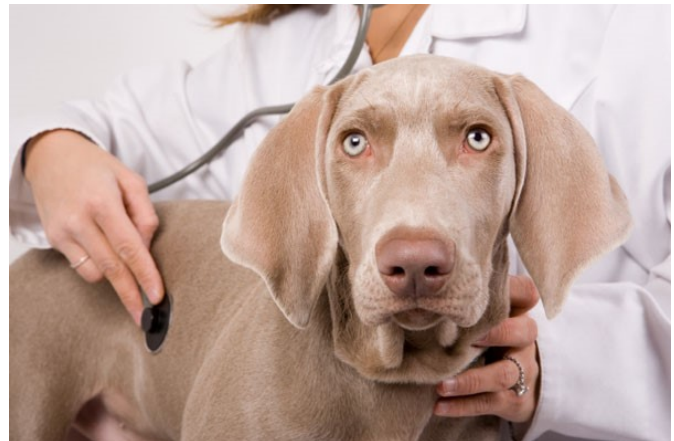
Second stage parturition

During this stage contractions increase and abdominal contractions begin; this is to push through the cervix. Abdominal contractions are when the bitch squeezes from her ribs all the way down her abdomen. The time that the abdominal contractions begin should be recorded. From the onset of the second stage to the time the first puppy is born are variable-10 minutes to 1 hour. If the bitch strains abdominally for more than 30 minutes and does not give birth you should contact a vet. Most bitches lie on their side to give birth but some prefer to stand. The membrane which surrounds the puppy in the womb may still be intact when the puppy is born, if the bitch does not burst it you should do so, it is easily ripped. The bitch will lick vigorously at the puppy, first time mums may need a little encouragement. The bitch will usually chew the umbilical cord; if she doesn't you can cut it with a sharp, clean pair of scissors. A

green discharge may be passed with, in-between or after each puppy is born. This is normal and is caused by the blood in the placenta changing colour. The bitch should have as little interference as possible during parturition as few people as possible should be involved.

Third stage parturition

This stage is the passing of the placenta, this can occur during the second stage as each pup is born. Sometimes a puppy is born without its placenta and it will be passed at the end. After whelping has finished the bitch will often pass a green discharge, this is normal and may continue for up to 1 week.



THERE IS ALWAYS A VET AVAILABLE FOR HELP OR ADVICE SHOULD YOU NEED IT

Ring the surgery on 0191 5493535 during opening hours (08:30-19:00 Monday-Friday and 09:00-13:00 on Saturdays) Or our out of hours number is **0330 999 1750**

Reasons to call the Vet:

- There is a greenish vulval discharge indicating placental separation but no puppy is

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born within 2-4 hours.

- Foetal fluid (clear/blood tinged liquid) was passed more than 2-3 hours ago but nothing has happened since
- The bitch has been having contractions/straining for 30 minutes but no puppy has been produced
- Your bitch has been in second stage labour for more than 12 hours
- If a puppy appears to be stuck in the birth canal and is partially visible.
- Your bitch is in extreme pain or distress
- If you have any concerns about **anything at all** please don't hesitate to contact us

Post Whelping complications

Complications can sometimes occur after whelping. These include problems such as the retention of foetal membranes, metritis (inflammation/infection of the womb) and mastitis (inflammation/infection of the mammary glands). If your dog is unwilling to settle with her puppies or ignores them, is dull and lethargic, refuses food, seems to have abdominal pain, stops drinking or drinks more than normal, or has an abnormally persistent or smelly vaginal discharge (normal discharge is odourless and may be green, dark red-brown or bloody and may persist in small amounts for up to 8 weeks), then she should be seen by a vet.

Lactation tetany or eclampsia is caused by low blood calcium levels due to the huge demand of milk production. Signs include nervousness and restlessness, lack of interest in or even ag-

gression towards the pups, incoordination, muscle spasms, collapse and fitting-if you see any of these signs your bitch needs to be seen urgently by a vet.

Nutritional requirements of a pregnant or lactating animal

Good balanced nutrition is vital, both during pregnancy while the puppies are developing in the womb and during lactation. A standard adult dog food won't provide all the extra nutrients required and in fact it is best to change

your diet to a commercially produced puppy food. This should be introduced about the 4th



bitch's puppy food. The puppy should be introduced about the 4th

pregnancy. To avoid tummy upsets, any change in diet should be done gradually over a period of 5 days. Try to use the brand of dog food that your dog is used to and feed a wet or dry diet according to what she normally prefers.

The amount you feed should be based on the manufacturer's guidelines found on the food packaging and can be adjusted according to her body condition. Feed several small meals throughout the day and ensure that there is always plenty of fresh water available.

The puppy food should continue to be fed to your bitch throughout lactation and gradually reduced as the puppies start to wean at around 4 weeks of age.

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If a good quality commercial puppy food is fed during pregnancy and lactation, there is no need to give supplements of extra vitamins or minerals. In fact, giving additional calcium during pregnancy can actually lead to problems with low blood calcium during lactation.

Exercise

Exercise of the pregnant bitch does not need to be restricted until after the first 5-6 week of pregnancy. We would recommend lead exercise only after this stage and her exercise tolerance ie the length of time she can exercise for, will reduce as her pregnancy progresses.

Vaccination

Mothers provide protective immunity to their puppies via their colostrum (the milk produced in the first few hours after birth). To ensure that your bitch has sufficient antibodies to pass on to her puppies, it is important that she is up to date with her routine vaccinations prior to mating.

Worming

All bitches are infected with roundworm larvae. These lie hidden and dormant within the body of the bitch and become active during pregnancy, infecting the pups while they are still in the womb. In addition, once the puppies are born, further worm infection comes from the milk when they are suckling. Ideally, starting from day 40 of pregnancy, bitches should be wormed daily until 2 days after whelping. We can advise you on the safest and most effective wormers to use.

The puppies should be wormed at 2, 5, 8 and 12 weeks of age and then every 3 months. The mother should be wormed at the same time as the puppies until they are weaned.

Some useful terminology:

- **Parturition**- the act of giving birth
- **Whelping**- parturition in the bitch
- **Dystocia**- difficulty during parturition
- **Uterine inertia**- a condition caused by poor contractions or poor straining, which prevents normal parturition
- **Caesarean section**- the surgical removal of puppies under a general anaesthetic, this procedure is only carried out when problems arise
- **Eclampsia**- low calcium levels in the blood of the bitch, which needs urgent veterinary attention
- **Mastitis**- inflammation of the mammary glands during lactation
- **Lactation**- the period in which the bitch produces milk

Useful links:

<http://motherandpuppies.royalcanin.co.uk/>

www.warwickwhelpingboxes.co.uk

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