## Whelping your Litter



As your bitch's due date draws closer, you will be excitedly anticipating the day she whelps her pups. You want to be prepared and ready for the birth well ahead of time.

You will have already set up your whelping area and will have been transitioning your bitch to spending an increasing amount of time sleeping in the whelping box and being confined to the whelping area. Now you will need to make sure that you have everything on hand and are ready for the birth.

### Calculating when your female should be due to whelp

The length of the canine pregnancy is generally accepted to be 63 days (or nine weeks) from the time of **ovulation**, plus or minus a few days.

This is an average, so don't assume that the date you calculate will be the exact date your bitch will have her pups. You need to be ready to go, even if she whelps a few days earlier than you expect.

If you had progesterone tests taken as part of the mating process, your vet can tell you when your bitch ovulated, and you will be able to calculate an accurate whelp date range.

If you did not have progesterone tests done, you will be relying on the mating date(s) to calculate when your bitch is due. You will have to allow both for multiple mating dates and for the fact that the mating(s) and ovulation could have been one or more days apart. This will give you a much wider range of potential whelp dates, and you will need to be ready for her to whelp anytime during that range.



### Important!

If you reach the end of your expected whelp date range and your bitch has not shown any signs of whelping, first check you have calculated correctly.

If the dates seem right, you should contact your veterinarian for advice.

If your bitch was bred to frozen semen, your reproductive veterinarian would have given you a definite date for whelping. It is crucial that you do not allow your bitch to go over this date even if she looks calm and settled.

### The last week of pregnancy

### **Physical changes**

As your bitch's due date draws near, she will be getting quite large. The growing puppies and uterus will be taking up most of the space in her abdomen, and you find that she may struggle to get comfortable at times. You will have moved to feeding her several small meals a day rather than one or two large ones, and you may find that her appetite varies widely from day to day.

Her teats may have begun to swell, and you may even notice that she has started producing milk. Some bitches will start producing milk a week or more before the birth, especially if they have had pups before. First time mums are less likely to do this, but every bitch is different.

Closer to the birth, you may see a change in the shape of her abdomen as the ligaments holding the uterus loosen. Her belly will 'drop', and the puppies may become easier to feel through the abdominal wall. This usually occurs about three or so days before birth.

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#### **Behavioural Changes**

It is normal for bitches at this stage of pregnancy to start withdrawing from social company, so you may find she is not interested in interacting with any other pets you might have. Some bitches become very 'clingy' with their owners; others continue as normal.

It is quite normal for bitches to begin 'nesting' in this last week. You may find she starts 'digging' – both outside in the garden or even inside or in her bed. She will be starting to look for a place to have her pups, so it is important that she is safely kept away from any places that would make access difficult should she whelp early. You will need to keep a very close eye on her, especially when she is outside.

#### **Exercise**

As she approaches full term, her exercise requirements will continue to change, and she will spend more time resting. Make sure she continues to have some gentle exercise, even if it is just a few laps of the backyard several times a day. Avoid any forms of strenuous activity, and let your bitch tell you when she has had enough.

#### Grooming

You will have been grooming and bathing your bitch throughout the pregnancy to make sure that her coat is clean and free from knots and tangles. As the whelping date approaches, you may want to trim or shave the hair around her teats and vulva if it is particularly thick or long. This will enable you to better see what is happening and will make keeping her clean after the birth a bit easier.

If your breed has long hair, lots of feathering, or a thick/tight coat, you may have to consider more trimming or clipping. Puppies can easily become tangled or trapped in long hair, so speak to your mentor(s) or other breeders about how they prepare their girls for a litter.

Remember that you may need to spread your regular grooming out over several shorter sessions if your bitch finds it difficult to sit or stand for longer periods of time.

### Getting ready for the birth

As a breeder, you want everything to go as smoothly as possible during the birth, and for both the mother and the pups to have everything they need. A lot of a breeder's success in this area comes down to preparation.

#### A visit to the Vet

In the last week of pregnancy, it is a good time to have a visit to your vet. Your veterinarian can make sure that your bitch is healthy and ready to have her pups and answer any questions you might have about the birth. They can talk you through the stages of labour and tell you when you should call for advice should things not be going to plan.

Your vet may also recommend that an x-ray be taken so that they can assess how many pups are in the litter. The puppy's skeletons are starting to calcify at this stage, so both the skulls and spines are visible on x-ray.

Knowing how many pups are expected is very valuable information. Most whelping difficulties occur with very small or very large litters, or where the size of the puppy's head is very large in relation to the mother's pelvis. Your veterinarian can use the x-ray to assess any potential risks and give you further instructions or advice.

Regardless of whether or not you have a pre whelping check at your vets, you will want to confirm their availability should you run into difficulties during the birth. If your vet offers an out of hours service, you will need to make sure they are aware of your bitch's expected whelp dates, and make sure you have the correct number(s) for contacting them if the clinic is closed.

If they do not offer an out of hours service, they will be able to provide you with the contact information for the nearest emergency veterinary service or out of hours clinic.

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#### Clear your diary

Because you will not have a definite date or time to expect your bitch to whelp, you must plan ahead to make sure that you are able to be home in the lead up to the birth. Many breeders schedule leave in the days before the due date or make arrangements to work from home so that they can supervise their bitch and make sure they are home when things get underway.

You may also have to consider your back up plans should your bitch whelp a little earlier than expected — will someone else be available to pick the kids up from school, or take them to weekend sport? Making sure everything is organised can help take some of the stress out of whelping your bitch.

### Important!

If this is your first time whelping a bitch, you may want to consider having your mentor or an experienced breeder come and sit with you during the birth. Make sure you let them know well ahead of time so they can also plan for the expected whelping dates.

You will also have to consider how you will manage in the weeks after the birth. Having a litter is a very time consuming job. First time mothers can need almost constant supervision until they settle into their new role.

Most females give birth at night, meaning the breeder will have to sit up with them into the wee hours, and then spend the next couple of days supervising the mother and pups almost constantly. Some breeders end up sleeping next to the whelping area for a few days so that they can be woken if a puppy is crying, or wake up to supervise feeding times.

The time commitment continues as the pups grow and develop. There is the daily cleaning, feeding and exercise tasks. There is the handling, socialisation, and training of the puppies, the visits from potential puppy owners, and vet visits for vaccinations and microchips. Even if your bitch is an excellent mother, you will not want to be away from the litter for more than a few hours at a time.

### Make sure that you have everything you need for the birth

Having everything ready and on hand makes whelping the bitch much easier. You don't want to be racing around at the last minute looking for things, so make sure your whelping area is fully stocked, and you have all the items you are likely to need well ahead of time.

You are going to need:

- » Plenty of newspaper (staples removed)
- » Your Litter Record sheet
- » Pen and Paper
- » Thermometer
- » Gloves
- » ID Collars/way of identifying each pup
- » Scales accurate to grams
- » Towels
- » Cotton thread
- » Scissors
- » Hot Water Bottle or Heating Pad
- » Garbage Bags
- » Betadine™ or similar hospital grade disinfectant (ask your vet for advice)
- » Mentor as back up
- » Your Vet's Contact Number
- » The number of the nearest Emergency or Out of Hours Vet Clinic

#### Knowing when the birth is imminent

### Behavioural changes

Probably the least reliable way to determine your bitch is about to whelp is to watch for behavioural changes. Some bitches will go off their food the day before whelping; others eat right up to the time of birth. Some bitches become very reclusive, others increasingly clingy. As discussed above, milk production and nesting behaviours are quite common even a week before the birth, so these are also not great indicators.

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Generally, it is only when the first stage of labour has begun that you can truly use behaviour as a reliable indicator, and by then, the whelping is underway!

Although behavioural indicators can give some clues of the impending birth, there are several (more technical) ways of predicting more accurately that the birth is imminent.

#### **Temperature**

The normal temperature for dogs is somewhere between 38 to 39 degrees Celsius. About 24 hours before birth, this temperature will drop below 37 degrees.

The dog's temperature is measured using a thermometer inserted into the dog's rectum. Because there may be droppings present, the thermometer must be pressed gently against the rectal wall to get an accurate reading. Otherwise, the temperature recorded may be artificially low. If you are not sure, ask your vet to show you how to do it properly.

Monitoring temperature is simple and easy to do. It does not require fancy equipment, so it is a technique that all breeders can use. It is a good idea to start taking your bitch's temperature twice each day throughout the last week of pregnancy recording the result each time.

#### **Progesterone level**

From the time of ovulation, throughout the pregnancy, progesterone levels in the bitch will remain high. Just before the bitch is due to whelp, this level will suddenly decrease. Your vet can use this to make sure that the bitch is truly ready to whelp - especially if they are considering performing a caesarean operation on a bitch who may have gone 'over time' and who is not actively whelping.

Whelping occurs within 24 hours of Progesterone dropping below 6 nmol/L

\*\*Source: Gribbles Veterinary Pathology

### Stages of labour

### First stage of labour

During the first stage of labour, the body is preparing for the birth. The hormone levels have changed, and the uterus is beginning to contract.

Although you will not necessarily be able to see the contractions, the uterus has already started moving the pups into position for the birth.

Bitches who are in the first stage of labour can be very uncomfortable – they shiver, shake, and pant. Their abdomen may be tense, and many will vomit (some several times). The nesting behaviours will intensify, with the bitch digging (sometimes quite frantically), shredding the paper in the litter box, and getting up and down as they try to get comfortable.

Although most bitches will be quite clingy at this stage, others will go and hide, so you need to be watching closely. The first stage of labour may last a few hours or up to a day. Every bitch is different. Some have a very long and intense first stage, and others who may not give any external signs and suddenly move into second stage labour (active pushing) midway through eating their dinner or taking a turn around the back yard.

You need to be alert to any changes in your bitch's demeanour and not leave her unattended for too long. Most bitches whelp during the night, so often the signs of the first stage of labour occur during the day, with the second stage of labour happening in the evening or early hours of the morning.

### Important!

As soon as you see ANY signs of first stage labour, you immediately need to take your bitch to her whelping box, and you must continue to supervise her until the whelping is completed.

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### Second stage of labour

The second stage of labour is when the active pushing begins. Generally, the first pup takes the longest to be born. Your bitch will usually have a number of contractions that gradually get closer together. It is a good idea to record when the contractions begin so you can tell if she might be in trouble should things not progress.

The contractions will continue until a puppy enters the birth canal. This triggers a reflex, and the contractions will suddenly intensify. The bitch will begin really bearing down. Usually, after 4 to 5 of these really hard pushes the first pup will be delivered. The puppy may come out head first or tail first – both are completely normal presentations in the dog.

As the puppy is born, you will probably see a 'bubble' of fluid appear at the vulva first. After a few more pushes, you will see either a nose or some feet and a tail appear. Inside the uterus, each puppy is contained inside a sac of fluid and this may burst during the birth, releasing the fluid, or it may remain intact.

It is crucial that after the puppy is delivered, the sac is quickly broken and the fluid cleared from the puppy's nose so that it can breathe. It is usual for the mother to do this, but if she doesn't, you may have to step in and tear the membranes of the sac and work to clear the airways of any fluid yourself. Puppies that remain in their sac can actually drown in the fluid.

The pup should be moving and making noise nearly straight away. The mother will lick and clean the pup, which helps to dry it and stimulates it to breathe. You can assist with this if the mother seems slow to attend to a pup (especially if she has a couple of pups close together and can't keep up). Using a towel, you can gently support the pup in your hands and rub it (quite vigorously) to help dry it up and stimulate respiration.

### Important!

Although most bitches will accept you touching and handling their pups during the birth, they will understandably be quite anxious about it.

If you are cleaning a pup, try to keep the pup fairly close to the mother, and let her sniff and lick it whilst it is in your hands. You don't want her getting up suddenly or jumping out of the whelping box as she could accidentally step on her other pups them as she rushes to protect the pup in your hands.

### Third stage of labour

The third stage of labour involves the passing of the placenta – a thick, spongey piece of dark red tissue. The placenta may come out with the puppy, or it may be passed just after the pup (generally within 15 minutes of the pup being born).

It is perfectly normal for the mother to eat the placenta and to chew through the umbilical cord. You will want to supervise this to make sure she is not too rough, especially if she is a first time mother. The placenta can be quite heavy, so if the bitch does not eat it or chew through the cord, you may have to step in and tie off the cord yourself so that the pup can move to the teats.

You can use a clean piece of cotton thread to tightly tie off the cord about 1cm away from the pup's belly. After it is secured, you can cut off the remaining membranes and placenta and dab the tied off stump with some Betadine to prevent infection. The remains of the umbilical cord will gradually dry up and will fall off in a couple of days. You can also use this technique to tie off any cords that seem to be bleeding excessively.

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### Delivery of the rest of the litter

Your bitch will repeat the second and third stages of labour until all of the pups have been born. Once started, most bitches will usually continue to whelp pups at fairly short intervals. Still, the time between pups can vary quite widely from a few minutes apart up to an hour or two.

Sometimes the gap is so short that she may not have time to fully deal with one pup before the next arrives, so you need to watch closely and step in and assist if required.

### Important!

As each pup is born, you need to record the time of birth, weigh the pup and record its sex. You will need a way to identify each pup.

If you have a breed with different colours or coat patterns, it may suffice to take a photo of the markings or record the colour—i.e. black male, or red and white female, large patch over the right eye. If you have a breed where pups are all the same colour or similar in markings, you will have to identify them in another way, such as a coloured ID collar. Ask your mentor what they use.

#### Important first feed

Almost as soon as they are born, pups will start moving towards their mother's teats for a feed. Because they have minimal body reserves, it is crucial that they have a good feed as soon as possible. This first milk (called 'colostrum') also contains important antibodies that help provide the newborn pups protection from disease, so it is vital that all puppies have a good first feed.

Suckling also stimulates the release of the hormone Oxytocin in the mother. Oxytocin is involved in milk 'let down' (release) and contraction of the uterus.

If you have any pups that seem to be having trouble getting to or attaching to the teats, you can assist the pup onto the teat, squeezing gently at the corners of their jaw to open their mouth and pushing them onto the teat.

Puppies will often latch on, but quickly fall off, so you may have to repeat this a few times until they are properly suckling. Sometimes expressing a tiny bit of milk before placing the pup on the teat will give them the right idea.

The rear teats are often the 'best' ones, so you should aim to put any smaller or freshly whelped pups onto those teats, and move bigger pups who have already had a good feed onto the front teats. Your mentor will be able to show you how it is done.

### When will I know she is finished whelping?

If you have had an x-ray taken in the last week of pregnancy, you will have a very good idea of how many pups to expect. However, you need to remember that the count might be out by a pup or two with large litters.

Generally, once she is finished, your bitch will settle, and there will not be any further contractions. She will focus on cleaning and feeding her pups, and she may have a little sleep. However, it is not uncommon for bitches with a larger litter to rest or take a nap in between pups, especially towards the end of the litter.

Whelping a litter is physically demanding, and there are a number of things that may go wrong. Low calcium, fatigue, and uterine inertia (where the uterus stops contracting even though there are still pups) can all look very similar to a bitch who has finished whelping, so you want to make sure there are no more pups before assuming the whelping is complete.

When you think she is finished whelping, it is a good idea to stand your bitch up, and have a gentle feel of her abdomen. It should feel soft and 'empty' - you should not be able to feel any more pups. Pups can feel like a firm 'sausage' in amongst the soft contents of the abdomen, or you might be able to feel the hard bony skull of a pup.

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#### When things don't go as planned

Although the majority of bitches whelp their pups easily, with little to no intervention, there can be times where there are problems and assistance is required. This is where having an experienced breeder sit with you during your first few whelpings can be a huge benefit – they can show you what to do. They will have a good idea of what is normal and what is not, and they will know when it is time to call for expert help.

Although your role as the breeder is primarily to supervise the birth — watching quietly, reassuring your bitch, and documenting all of the stages as they happen - you should be ready to assist if necessary. In most cases, this will involve things such as breaking the sacs around the pups and clearing away fluid so they can breathe, cutting and tying umbilical cords, rubbing and drying pups, or assisting pups onto the teats for a feed.

If your bitch seems to be having a little trouble passing a pup, and the pup is visible or partially out, you may be able to assist with the delivery. If you need to do this, it is important to grasp the pup gently, and in time with the bitch's next contraction, gently provide a little traction to help move the pup. You should be pulling out and downwards — in the direction of the bitch's back feet. If this does not help, then you should immediately seek advice.

Don't be afraid to call for help if you think something is not right. Getting good advice and, if necessary, veterinary intervention early can be the difference between a successful outcome and losing one or more pups or even your bitch.

Many reasons may cause difficulties or complications in the birthing process (called 'dystocia'):

- » Uterine inertia (where the muscles of the uterus stop contracting)
- » Hypocalcaemia (low body calcium required for normal muscle contraction)
- » Fatigue/Exhaustion (especially with large litters)
- » Puppy too large
- » Dead, malformed or abnormally positioned puppy
- » Mother's pelvis and birth canal too narrow

Sometimes it is hard to tell if the bitch is experiencing difficulties, or if she is just progressing normally through the process. Below is a rough guide to the expected time frames for whelping, and events that should trigger a call to your veterinarian.



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You should seek assistance if there is:

- » More than 30 to 40 minutes of strong contractions with no pup
- » More than 15 minutes of contractions with a pup
- » More than 3 hours between pups
- » A green discharge from the bitch's vulva with no puppy born
- » A yellow or creamy discharge from the bitch's vulva
- » Lots of bright red blood coming from the bitch's vulva
- » A female who is very restless, crying or licking frantically at her vulva or who seems very distressed

\*\*Remember: These are estimates only, and you should check with your vet as to when they would prefer you to call them for advice or bring the bitch to the clinic.\*\*

If your bitch is having trouble, your vet will want to examine her – feeling for any pups that might be stuck in the birth canal, and assisting if required. If there are no blockages, your vet may decide to give the bitch an injection of Oxytocin to stimulate uterine contractions and see if she will pass a pup. They may also provide some calcium and fluids via a catheter.

The next option may be to perform a caesarean section operation, where the remaining pups are removed from the uterus surgically. A caesarean operation can be performed at any time during the whelping, and it is not uncommon for a bitch to have most of the litter, then require a caesarean for a remaining pup or two at the end. Alternately, if the very first pup gets stuck, the entire litter may end up delivered this way.

In very rare cases, usually where there have been complications during the pregnancy, your veterinarian may schedule an elective caesarean. In this instance, the bitch has the operation before she even goes into labour, or as the very first stages begin.

Because the mother requires an anaesthetic for the caesarean surgery, the pups will also be affected by the anaesthetic agents and can be a bit slow to get started. There will also be increased after care as the mother of the pups will have stitches (usually along her mid line, in between her teats), and may take a little longer to recover from the birth and bond with her puppies.

Your veterinarian will provide you with additional care instructions and provide you with ongoing advice if a caesarean operation is required.

#### After the birth

When you are happy that your bitch has finished whelping, you will need to clean both her and the whelping box. Whelping is a messy process!

You will need to move the pups into a basket or box with a heating pad or covered water bottle, so they stay nice and warm. Then you will need to remove all of the soiled bedding/newspaper, before cleaning and disinfecting all of the surfaces of the whelping box. Shredded newspaper is excellent for whelping as you can just scoop it all up, place it in a garbage bag and throw it out.

You will want to replace the bedding with something a little softer and warmer than just paper – most breeders use a layer of newspaper (to absorb any liquid) covered with a layer of 'dry bed'. Still, you can use anything that is easily cleaned, and that provides a suitable soft bed for the mother and pups. Remember thick bedding may seem super comfortable, but you don't want pups accidentally getting trapped in the layers of bedding, and you need the bedding to be able to be washed and dried quickly.

If you haven't already, now is the time to set up your heat lamp at a safe height over one end of the box. The heat lamp will need to remain on for the first few weeks and needs to be at a height that does not pose a risk to the mother as she gets in and out of the whelping box.

Now is also the time to take your bitch outside (on leash) for an opportunity to toilet. She will be reluctant to leave her pups, but a quick stretch of the legs will be good for her, and she can be offered some food and drink.

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If her coat is soiled with discharge and afterbirth, she may need a quick bath, but make sure she is properly dried before returning to the pups and the whelping box. She will continue to have some discharge for up to 2 weeks, so you might need to rinse off her hindquarters once or twice a day to start with.

Once everything is clean, you can return everyone to the whelping box, and make sure they are all settled. Place the smaller pups, or those born later, straight on the rear teats, and make sure that all pups have a nice full looking belly before leaving them all to rest.

#### Post whelping check

Even if the birth was uneventful, most vets recommend that you have a post whelping check within 12 to 24 hours of the delivery.

As the litter will most likely have been born overnight, usually this is scheduled for the next morning. At this visit, your vet will want to check that your bitch has passed all of her pups, that her discharge is normal, and that she has adequate milk in her teats. They will also check the pups over, looking for things such as cleft palates, and checking that their umbilical stumps all look clean and dry.

If your bitch has whelped a large litter, your vet will want to discuss feeding strategies to ensure all pups have a good chance to grow. Your vet may recommend supplemental feeding and will show you how to safely feed the pups, and will be able to recommend a suitable formula for you to use.

Congratulations on your new litter!