

# Labor in Dogs & Cats - Be Prepared for the Unexpected

Just as for humans, labor in dogs and cats is straightforward without complications. But the latter do happen, and they tend to happen at inopportune times like the middle of the night. Pet parents need to be prepared for the unexpected. This week I share information to help families identify when something is going (or has gone) awry with their pregnant fur baby. Happy reading!



## Labor - What's Normal?

Dogs and cats experience three stages of labor:

- Stage I - This first stage often goes unnoticed by pet parents as the signs are relatively subtle. Approximately 12-24 hours before labor begins, the mother's body temperature decreases by 1° Fahrenheit, and they may have reduced appetites. Dogs may pant, and affected animals may be restless and/or tremble. They often seclude themselves in a quiet area and prepare an area to give birth. This behavior is called nesting. The cervix

starts to dilate and the vulva swells. The uterus also begins to have small contractions, but these changes are not often visible to observers. Stage I commonly lasts 6-12 hours.



A dog in Stage I labor

- Stage II - During the second stage of labor, puppies and kittens are born. The mother's cervix fully dilates. Uterine contractions are quite apparent, and offspring are typically born within four hours. Frequently, puppies and kittens are born within 20 minutes of each other. However, some mothers rest between deliveries, sometimes for up to two hours. Subsequent offspring should be delivered within two hours of each other.



A puppy being born hind feet first  
(posterior presentation)

- Stage III - Placentas are expelled during the third stage of labor. Typically, these organs are expelled within 15 minutes of each birth, and the mother may eat them.

## **Labor - How do I know if there's a problem?**

The term dystocia describes difficult or obstructed labor, and can be life-threatening to both mother and puppy/kitten. The causes of dystocia can be categorized based on the underlying cause:

- *Ineffective or absent expulsive forces* - Occasionally mothers are not able to contract their uteri effectively to expel offspring even though there is nothing anatomically wrong with the birth canal. Some potential causes of ineffective expulsive forces are low calcium levels and distraction from being watched too closely by humans. Humans should not hover over a pregnant dog or cat!
- *Obstruction within the birth canal* - If the mother's pelvis has been previously injured, if the vagina is atypically narrow, and/or if the uterus is twisted, then natural delivery is frequently impossible
- *Abnormalities with the fetus* - Just as with human babies, dog and cat fetuses can be positioned awkwardly within the womb, making uncomplicated natural delivery very challenging. A common example is a breech birth, a position in which the hind end is presented through the cervix first with both hips in a flexed position.



An illustration of a puppy whose head is in an inappropriate position. Without repositioning, nature birth will not be possible

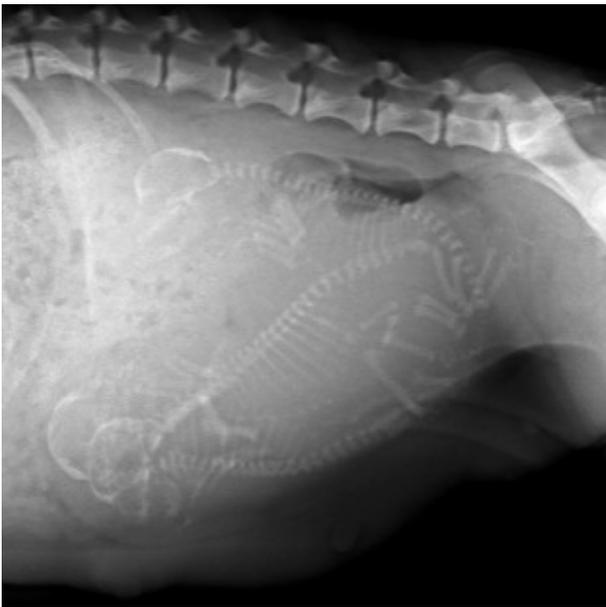
- *Disproportionality between mother and fetus* - Common in small breed dogs, a fetus is relatively large compared to the mother's pelvis, and thus can't be delivered naturally. Rare congenital defects can also contribute to this disproportionality.

Families need to know when they need to be worried, when they need to seek immediate veterinary attention for their pregnant fur baby. The following constitute an emergency for a dog or cat in labor:

- Mother is more than 2 days overdue
- Stage I has been in progress for more than 12 hours
- No offspring has been delivered within 4 hours of the initiation of Stage II
- More than 2 hours between births
- The mother has been contracting strongly for more than 30 minutes without delivering
- The fetus or fetal membranes are visible at the vulva for more than 15 minutes
- There is a green discharge from the vagina for more than 2 hours without expulsion of a fetus

## Labor - What happens when there is a problem?

Without question, families should seek immediate veterinary medical attention if they believe their pregnant fur baby is experiencing dystocia. The veterinarian will perform a complete physical examination, and will pay particular attention to fetal movement and heartbeats, the mother's mammary glands, and the overall systemic health of the mom. The doctor will closely examine the vulva and vagina for tone, size, and the presence of fluid, fetal membranes, and/or a fetus in the birth canal.



A radiograph/x-ray of a pregnant dog.  
Note the multiple puppy skeletons.

Some non-invasive testing may be necessary, including radiographs/x-rays to determine the number and position of offspring. There are also some radiographic changes that may be present when fetuses have died. Radiography can unquestionably be very helpful and this single exposure is unlikely to prove harmful to mother or offspring. Sonography can be helpful too, allowing one to confirm pregnancy, assess fetal heart rates, and evaluate the integrity of the uterus.

Treatment for dystocia is variable, depending on the underlying cause, the mother's health, and the presence of fetal distress. Possible courses of action are:

- Conservation intervention - This is essentially a period of controlled waiting. A veterinarian may recommend this course of action if a mother's uterine tone is satisfactory and fetal membranes are approaching in the pelvic canal. There should always be a time limit on a conservative approach.
- Ecbohic therapy - This type of intervention involves giving the mother medications - most commonly calcium and/or oxytocin - to stimulate uterine contractions. Such interventions should never be used in mothers who have an obstructed birth canal.



- Assisted delivery - The veterinarian may help the mother deliver an offspring if it is within the pelvic inlet in the correct position and posture.
- Surgical treatment - Just like human women, pregnant dogs and cats may require a Caesarian section (C-section) to have their offspring. Prior to surgery, veterinarians and families should speak frankly about healthcare priorities in the event of complications. In other words, should a life-threatening problem arise, who takes priority - mother or offspring?

## **The take-away message about labor in dogs & cats...**

There is nothing more miraculous than birth. While most births are uneventful, sometimes serious problems arise. Pet parents need to know signs of potential complications so they know when to seek veterinary attention for their pregnant fur baby. With proper identification and intervention, we maximize the likelihood

of delivering healthy offspring to a loving mother.



To find a board-certified veterinary reproductive specialist, please visit the American College of Theriogenologists.

To find a board-certified veterinary emergency & critical care specialist, please visit the American College of Veterinary Emergency and Critical Care.

Wishing you wet-nosed kisses,

cgb