

# HOLISTIC HEALTH CARE FOR CAVALIERS

## Part VII

### *Pregnancy, Whelping and Immunity Part One*



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Where do Cavalier puppies come from?  
The obvious answer is "Cavalier Heaven"

Karen and I have whelped numerous litters of our own dogs and consulted on many more cases for others. We decided, since the last major article was written/printed, "When is it Time to Say Goodbye," it would be appropriate to talk about birth and life and the "Time to Say Hello." Our goal is to help bring a better understanding of the physiology, the complexity and the issues surrounding pregnancy, birth and puppy care in our Cavaliers and to also discuss some of the pitfalls, tricks and techniques we have learned.

#### **A Basic Understanding of Conception in the Dog - The Estrus Cycle.**

Most un-spayed Cavalier females tend to go through puberty at about eight or nine months old and that is when they have their first season or "heat." Occasionally, it can arrive later, but if it happens after thirteen to fourteen months of age, it is most likely that their first cycle did occur earlier, but was a "silent" heat. This can mean that the cycle was not strong, the signs may have gone unnoticed and the notable stronger heat is, actually, the second time. We do see dogs that are, essentially, "late bloomers" and consider this when we prescribe homeopathically. They are usually immature in other areas as well.

The estrus cycle in the dog is different than the menstrual cycle in people. In the menstrual cycle of women, there is a readying of the uterus for the fertilized egg, ovulation, and, if implantation does not happen, there is a sloughing of the wall of the uterus with the normal bleeding associated with menses that occurs *after* ovulation. Then the cycle begins all over again.

In the dog, the uterus is in hibernation (anestrus) for six to twelve months and then, the estrogen starts to build as the uterus starts to prepare to receive the fertilized egg(s). The bleeding that occurs in the bitch is a break-through bleeding and happens *prior* to ovulation. This time of preparation and bleeding is called proestrus and lasts from seven to ten days in the normal cycle.

Once this has finished, the dog enters true estrus – this is where the uterus is now prepared to receive the fertilized egg, ovulation is getting ready to happen, and this is the only time a normal female dog will be receptive to mating due to the high estrogen. Other times during the cycle, if the male tries to mate, she will usually not allow it. This portion of the cycle (estrus) lasts about five to seven days and is the actual time that pregnancy can occur. After this time, if there is no fertilization, things regulate, hormone levels drop and the bitch enters the metestrus phase leading to anestrus and hibernation for six to twelve months.

So:

1. Anestrus – 6-12 months
2. Proestrus – 7-10 days
3. Estrus – 5-7 Days
4. Metestrus – 1-3 Days unless pregnant or false pregnancy.

#### **Pregnancy or False Pregnancy**

In canine pregnancy, the gestation period is usually sixty-three days although it can go a little longer or shorter depending on the dog.

Entering estrus, the follicle on the ovary ruptures and releases the egg, and then the remaining part of the follicle can change to become the Corpus Luteum. In pregnancy, the Corpus Luteum produces the progesterone that sustains the pregnancy. Sometimes the wires get crossed and the Corpus Luteum develops and persists in the non-pregnant dog producing high levels of progesterone and the dog can act like she is pregnant. She might even get milk and start carrying around stuffed toys like babies. This is called a false pregnancy and can last a few weeks. It is not normal but happens consistently in some dogs.

At the end of the gestation period the puppies are born and the Corpus Luteum persists to help with mommy type behavior and milk production.

Side note - Some dogs go off their food at about the halfway mark (thirty days) for a day or two at the most. I was taught (back in the old days) this was because the uterus was starting to unfold and readjust and this was not abnormal. One should always be concerned when a pregnant bitch feels ill and you should always be on alert, but being aware of the thirty day mark can help you avoid running to the veterinarian and stressing her if she seems OK in every other way.

#### **Some Nutritional Considerations in the Pregnant Bitch**

##### *Feeding Raw-*

We have discussed diets in detail in earlier chapters (articles), but there are some special considerations when you have a pregnant dog. I have never seen a problem maintaining a raw diet in a pregnant dog, although you can find all points of view on the internet these days. I do not think that one should make a dramatic switch to a raw food diet after the dog is pregnant as it might upset their digestion and any major disturbance could have a negative impact on the incubating pups. We are, however, big proponents of raw feeding and it can benefit the pregnancy and the incubating pups. If you do go this route, transition slowly and conservatively.

##### *Calcium-*

Calcium is important in the pregnant bitch and even more so during lactation. Low calcium can create eclampsia (milk fever) in dogs nursing a lot of puppies and we suggest adding calcium to the diet of pregnant dogs until a week before the due date. We ease off for the pre-delivery week, and then boost it back up afterward. This seems to work better than maintaining it straight through, as it allows the body a short recalibration period prior to whelping. Calcium can be supplied in many forms. We like to add cottage cheese (and the dogs like it too). An old trick was to add some powdered milk to the food and there are the usual calcium supplements, bones and other sources.

##### *Vitamins-*

A good canine multi-vitamin should be a part of any pregnant bitch's regimen. While this is not as essential as a good diet and calcium, it does not hurt to be safe. Vitamin E has been effective to help bitches get pregnant and can be maintained during pregnancy.

## Waiting

One of the most difficult times in this process is the waiting and not knowing when labor is starting. It is a good idea to take the bitch's temperature (rectal is more dependable than the ear) starting at about day fifty-eight because there is usually a noticeable drop (one degree or so) twenty-four hours before labor. Some dogs' milk also starts to come in a day before labor, but that is not as dependable. Other signals will be a change in appetite, moodiness, interaction and nesting.

Of course, knowing when conception actually occurred is good. Often dogs are bred daily or every other day during their five to seven day estrus, so we usually start counting from the first breeding and create a whelping date based on the first and the last breeding.

It is also helpful to have some idea of how many puppies are coming. Often an x-ray is done after day forty-two (this is when the bones start to calcify so the pups are easier to see and count) and an ultrasonic exam can also be helpful. I have always found the x-ray (two views) to be most accurate in predicting numbers, but do not be surprised if there are more pups than show up on the radiograph. You will, at least, know the minimum to expect.

Most bitches in whelp deliver every one to four hours. Some longer, some shorter and some vary with a whelping. I have seen dogs that deliver three pups an hour apart and then a healthy one six hours later. This is more of the exception and this is the most delicate and nerve wracking time for any breeder. Has it been too long? Is a puppy stuck? Is it time for a C-section? Is it time to do something natural or chemical (like oxytocin) to stimulate contractions? Nothing I write can cover all these eventualities, so my goal is to get you familiar with options. There are online (and telephonic) whelping services now available that, in addition to having a good support group, and a cooperative veterinarian, are a great benefit. Karen and I are lucky to have a lot of experience with our own litters and clients' dogs in our veterinary practice. I have the ability to palpate the abdomen and feel where the puppy is in the canal and we have a very old, but dependable, ultrasound machine. Despite all this experience, it is still both an exciting and a frightening time, so do not embark on this lightly. If you plan on breeding, have a mentor, do your research and remember to be responsible and only breed within the Cavalier guidelines as to age, and proper medical testing regarding health and genetic issues.

## Always Be Prepared

Don't wait until your dog is in labor to go scrambling for supplies. Get things ready days before! We keep a kit with a hemostat and some suture (or umbilical tape) to tie off the cord rather than let the mom chew it off. We like to leave some extra cord since cutting too short can create umbilical hernias – the stump dries up and falls off, so it is better to be cautious in this regard.

We keep Bach Rescue Remedy (we actually prefer 5 Flower Formula from Flower Essence Services but either works well in this case) to help the mom stay calm. We use a little ear suction bulb to help clear away any mucus in the puppy's mouth and nose.

We have a whelping box with a heated "nest" built into it. This keeps the puppies warm but has wood around the nest so mom can choose warm or cool as she needs.

You must have good lighting in the whelping area and always keep a flashlight handy. We keep plenty of towels and set up a separate hot box to keep the pups warm while mom is delivering the next puppy. To make the hot box incubator, we use a few old IV fluid bags that are heated (two to three minutes in the microwave) then kept warm with a small heating pad under them and a towel over them in a small box. This makes a great incubator.

Whenever we clean up the whelping box or if the bitch is getting ready to whelp another pup, or is too aggressive cleaning them, we will move them over to the incubator box for a bit. We also put them in it if she needs to go out during the whelping to urinate or defecate or just take a break. Always go out with her, take a flashlight and watch like a hawk since she could actually deliver a pup outside. Always keep puppies warm and be aware of their need for heat. It is critical to keep new puppies warm and even if the room is hot, it is nowhere as warm as the puppy should be (101 F). Some people use a lamp to warm the puppy box, but I feel the hot water bottle method and the heated whelping nest makes a much better choice. Whelping often starts in the early morning or middle of the night. We are usually on puppy watch for a few days and can be sleep deprived, so being ready beforehand is the safest course.

We also keep our most used homeopathic remedies nearby (more on that in the next chapter), any medications we may need during the whelping, a lubricant gel, exam gloves, hand wipes, treats for mom and a phone close by.

## Whelping

After each pup is born, breathing, and wanting to suckle, we try to get it on a nipple as soon as possible to allow it to get the colostrum, plus the suckling stimulates uterine contractions in the bitch. If the puppy is slow taking that first breath, we rub and stimulate it, and we are prepared if it needs more aggressive resuscitative measures. We even keep a small oxygen bottle with a baby mask at hand. The toughest are the breach births; these need gentle, steady traction to slowly pull it free. They may have the cord torn before the head is out and need to start breathing or have their nose cleared right away. I think every one of our breach births survived. We had one litter of five that were all breach.

Sometimes a pup is stressed during the birth or near the end of the gestation and actually moves its bowels into the placental sack. This first stool is called meconium and is a dark yellow green. If you have a pup born with this staining, it may be weaker, stressed or even stillborn. Most often this happens immediately before, or during labor and they do fine but we watch them more closely for the first day or so, as we feel they are more at risk.

## C-Sections

In the past twenty years, two of our Cavaliers have had pups that were stuck during whelping (or ineffectual contractions) and needed to have a C-Section. If the puppies have been coming at regular intervals and then there is straining, or you can feel a pup still in there (or have not reached the number counted on x-ray), then have her checked by a professional. This can also be true of a dog that has been in labor for hours and no pup has arrived.

With the new anesthetics, dogs and pups do well after a C-Section, but you may need to supplement the puppy feeding for a few days while the mom recovers. This is where bottle-feeding or tube feeding can be invaluable – we have a link to our tube feeding video on our website. ([www.naturalholistic.com](http://www.naturalholistic.com))

## Colostrum

The first milk that is produced is called colostrum and is very rich in antibodies that the puppy can absorb in the first day or so of life. Allowing the puppy to ingest the colostrum is added insurance that it will have an adequate level of maternal immunity and is a great start.

## Weighing Puppies

Karen makes it a habit to weigh each puppy daily on a digital post-

age scale and record the weight. Puppies should be gaining consistently. In one of our litters, Karen picked up on a pup that had not gained weight in two days – this was in the middle of recovering from Hurricane Wilma and we were without electricity for three weeks, but Karen stuck to her routine and, on closer exam, we found the puppy had a cleft palate and could not develop the suction needed to really nurse. We tube-fed him for a few weeks, until he could eat, and later we had the defect repaired surgically. He has lived happily with our niece ever since. I usually check for cleft palates post birth but this one was far back and I had slipped up. (Blame the hurricane please as they were born in the hours after the storm.) This is a great example of how tracking the weight of the puppies allowed us to help him before things got out of hand.

### Passive or Maternal Immunity and Vaccinations

The main two viral diseases that are concern with young dogs are distemper and parvovirus. There are others like corona, but I have always felt distemper and parvo are the biggest danger. From a conventional viewpoint, there are two types of humeral (blood based) immunities in animals. The first is the active immunity that happens when an animal is exposed to an antigen (immune reactive substance) and creates its own antibodies to that substance. The active immunity produced in normal, immune-competent puppies can come from vaccinations or natural exposure to the antigen. This natural exposure is how most of us get immunity to most things in the real world. Low dose, regular exposure allows our immune system to develop an ongoing immunity.

The other type of immunity is called “passive immunity” and is the result of antibodies from the mother being passed to the puppy both in utero (in the uterus) and via the colostrum and first milk. These antibodies are effective in protecting the puppy but have a half-life, i.e. they disappear over time depending on their initial level and the specific antibody. Once they drop below a certain level, the puppy becomes more susceptible to viral infections for that disease. These passive antibodies protect the pup but also prevent the vaccination from breaking through and allowing the puppy to create an active (ongoing) immunity. As these passive antibodies disappear, there is a window of susceptibility between the time they no longer can protect the puppy and that the vaccine can work.

For a very long time we have heard about “puppy” shots or temporary shots and many people think these are less potent, or safer, or weaker, or in any way different that the adult vaccines. In most cases, they are not. They are basically the same but are given every few weeks (the conventional model) in the hope that they can find the time when the window of susceptibility allows them to work because maternal passive immunity has dropped to a low enough level. If given before that, they are ineffective at the least. They are also stressing the body, introducing chemicals and can have an inflammatory and even counter effect so, in my experience, they are not harmless.

There are a number of schools of thought on this – they range from the “vaccinate over and over to be safe, since vaccines are harmless” extreme, to the “never ever vaccinate” extreme. I glossed over this in Chapter One (Fall 2010 *Royal Spaniels*) and want to take some space to address this here, since this is one of the most difficult questions that I must answer week in and week out.

Having lost a Cavalier puppy at six months old to parvo (three pups from two litters went to the Miami Dog Show, unvaccinated, and all three became ill, two were better the next day with homeopathic care and one died two days later despite intensive care).

This made me rethink the vaccination issue in terms of relative risk.

I think it is acceptable to raise a non-vaccinated puppy and allow it to gain its own active immunity through natural means – great nutrition, homeopathic constitutional therapy and slow limited exposure to the naturally occurring viruses.

I do not think it sensible to take a non-vaccinated puppy to a major dog show, puppy classes at an animal shelter or anywhere else that can be a hotbed of virus. It was a hard lesson, but I took it to heart. Dolly was the sister to Randa (who passed away quietly of heart failure at age twelve a few months ago after going through one bad day) and was one of the other pups from that trio. If the risk of exposure to virulent strains (like at dog shows) is high, then so is the argument for vaccination.

I know I detoured off a bit, but background is important in such a difficult and complex subject. The next question should be, “If we know that maternal immunity protects them, when does it drop below safe levels so I know when vaccination is effective?” Unfortunately, there is no easy way to know. When we talk about active versus passive immunity, vaccinations and titers, the two main antibodies involved are IgG and IgM. The main difference between them is: IgM is the immediate antibody that is produced once a puppy is exposed to an antigen like virus. IgG is the antibody that provides long-term immunity, but takes longer to develop in the system.

It would seem simple to just measure the IgG titer and be sure of immunity, but that pesky (yet wonderful) maternal immunity passed via the placenta is maternal IgG, so it can give a false sense of security if titer testing in a young pup.

It would be great to know the IgG level in each puppy and know when it drops off. Each case can, however, be different and is based on the mother’s titer, when she got pregnant, and how much immunity passed to the puppy in the womb and in the colostrum. I do recommend that the mom’s titers be tested prior to her breeding so she can have her vaccinations (if you vaccinate) updated before being bred to allow for a high level of immunity to be passed in utero.

To simplify and minimize this obstacle, I tend to vaccinate for parvo and distemper at ten to twelve weeks of age and again at sixteen to eighteen weeks. I prefer killed vaccine but Dr. Jean Dodds suggests modified live (MLV). I suggest a distemper and Parvo titer after twenty to twenty-four weeks to be sure the humeral immunity has developed but may wait until one year old to do this. I repeat titers annually for the first two years and then every one to three years depending on the animal’s overall health and situation. These are also similar recommendations to those of Dr. Jean Dodds. I do not titer for corona virus, as its antibodies are primarily IgA (intestinal) and the blood titer may not reflect their true level of immunity.

There are some dogs that never develop a titer for one or the other even with multiple vaccines. These “specific non-responders” may have a defect, or may respond to a different brand or type of vaccine. This is common enough to encourage titer testing even in highly vaccinated puppies.

In the next article we will cover some of the more specific ailments a bitch can get postpartum, plus some of the holistic therapies and homeopathic remedies for problems related to pregnancy, labor and post-delivery adjustment. 

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