HOLISTIC HEALTH CARE FOR CAVALIERS

Part VII

Pregnancy, Whelping and Immunity Part Two

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This is a continuation of the material started in our last issue. We will cover some of the more specific ailments related to breeding, pregnancy, whelping and lactation. We will include discussion of preventative measures and give a list of homeopathic remedies that are commonly used in pregnancy, labor and post-partum. We tried to cover the following areas:

- A Basic Understanding of Pregnancy, Labor, Delivery and Lactation in the Dog
- The Actual Breeding
- Artificial Insemination
- · Problems Getting Pregnant
- A List of Common Homeopathic Remedies Used For:

Problems during pregnancy Problems during labor and delivery Problems with nursing Problems adjusting

- The Whelping Kit
- Post-Partum Issues
- Importance of Testing in Responsible Cavalier Breeding

Looking at the list of potential problems, it is always a wonder why anyone would even consider breeding a dog with so many things that can go wrong and with so many things to make one worry.

Fortunately, much of what we will be discussing here does not happen very often. The best approach is, as always, prevention first, but if something does rear its head, we want to be able to recognize it as a concern, before it gets out of control and be prepared to act.

How Dogs Get Pregnant

The short answer is; "Very easily if you do not want them to." Seriously though, in many aspects, pregnancy in the dog is not much different than pregnancy in a human. The dog has an estrous cycle rather than the human menstrual cycle. We discussed the estrus cycle, in detail, in part one, in the last issue. Of course, the length of the pregnancy (gestation) and number of fetuses differ between people and dogs. Gestation in a human is nine and a half months (266 days) but gestation in the dog is nine weeks (63 days). People usually have one baby per pregnancy (or maybe twins), but more than that is a rarity without the use of fertility drugs. Dogs usually have multiple births.

The litter size can be dependent on the size of the bitch, the breed and even the particular genetic line within that breed, but an

average range is two to six puppies. Some stud dogs tend to father larger litters than others so, that too, is a factor. Our first Cavalier, the original "Katie," had multiple litters of three to five pups each, but her last litter was a single pup, "Noelle." We also had a Labrador many years ago, "Maggie," who whelped twelve puppies who all survived. The largest Cavalier litter I have seen whelped, has been eight puppies.

As a side note, Noelle was a singlet (single pup) and was perfectly delighted having six nipples from which to nurse and no waiting line. She was so plump, Karen was afraid she would never be able to stand and walk. She did, of course, and eventually raised four wonderful litters of her own and, as I write this, she is asleep next to me and will be fifteen (we hope) on Christmas day.

Problems Getting Pregnant

The main complaint we see in breeding, is the inability to get pregnant. There are many possible causes for this, from the obvious; timing of the breeding or male infertility and the increased use of artificial insemination and frozen sperm, to more intricate issues like; hormone imbalance, congenital defects in the ovaries or uterus, lack of proper nutrition (or absorption of nutrients), and sometimes, infectious diseases like Brucellosis (although that usually manifests as spontaneous abortion).

Once your female dog (actually called a "bitch" in the canine, as the male is called the "dog") has been successfully bred or inseminated, the next challenge is to determine if she is, indeed, pregnant. As of this writing, there are no simple, home pregnancy test kits for your doggy mom-to-be.

Some experienced breeders can tell if the breeding was successful in the first few weeks based on instinct, previous experience with that bitch and changes in behavior. An experienced veterinarian can often palpate (manually feeling the abdomen) changes in the uterus depending how far along things are. I have been able to tell at about twenty-one days in many cases and by day twenty-eight it is much easier. That does not mean that I have not missed some, but palpating puppies, for me, has become more reliable after doing it for almost forty years.

Fortunately, manual examination is not the only diagnostic avenue available these days. With the increased availability of ultrasounds in veterinary practices, early determination has become much easier. This can be done between twenty-one to twenty-eight days with a high degree of accuracy as to whether the bitch is pregnant or not. Ultrasound, however, cannot determine the exact number of fetuses that are actually present. There is also the ex-

pense, stress on the bitch and exposure to a hospital environment to consider each time we take her in for an exam.

In most cases, the only way to determine the number of pups is radiographically and that cannot be reliably done before day forty-two of gestation as that is when the skeletons calcify enough to be seen on x-ray. I have mixed feelings about using x-rays to determine approximate number of puppies. On one hand, there is always the stress and the radiation concerns but, on the other hand, it is often invaluable to know the minimum number of pups so you have a better sense of potential problems during the whelping. If she has had four pups AND you know there were at least five, then you can intervene medically (or homeopathically) earlier and with a better chance of saving the pup(s) and possibly mom. If you have ready access to a veterinarian, a pre-natal x-ray can be overdoing it, but I usually suggest it for the less experienced whelping "team."

False Pregnancy

There are a number of dogs that go through their heat cycle then act pregnant but are exhibiting a condition called "false pregnancy." This is fairly common and can often be seen in dogs that are not bred. In false-pregnancy (pseudocyesis), the dog may exhibit many signs of being pregnant, nesting behavior, and emotional changes. She may actually develop milk in her breasts, and even carry around toys like "babies". This happens because the hormone responsible for maintenance of pregnancy (remember progesterone and the corpus luteum) develops despite the lack of a fetus and can be very dramatic.

Actual Breeding

Mating the bitch to the dog is not the easiest thing to do (unless you do not want it to happen, then it works like magic). The bitch has to be receptive to the male. She has to be ready hormonally and comfortable emotionally. The male has to have the focus to perform his task and all of these factors can make things hit or miss. We have experienced several different scenarios regarding mating. We've had to help them figure it out, to leave them be. We have also used outside studs that would sit quietly and then perform on command. We did use AI (Artificial Insemination Method 1 below) once with our Labrador "Maggie" (she whelped the twelve pups), and have performed it for clients over the years.

During a natural mating, there is usually a "tie". The bulboure-thral glands in the male's penis swell and the two participants are actually "stuck" together for ten to twenty minutes. Katie used to sing and walk during her ties (poor Spenser) and would only settle if given Rescue Remedy and treats. They may turn back to back (ouch) as a defensive posture to limit their vulnerability to predators or other pack members.

Usually a successful tie is a great indicator of a successful breeding but it is not essential. Some people breed their dogs every day during the receptive period, some every other day during that five to seven day period of actual estrus. More and more breeders are measuring hormone levels to determine the best time to breed. The most common is Estrogen but we are now also measuring Luteal Hormone (LH) surge to better track the time of ovulation. This is more important when using freshly collected, chilled or frozen semen.

Artificial Insemination

Methods of AI have also become more refined over the years. There are three basic techniques:

1. Non-Surgical – Inserting the semen into the vagina but not

through the cervix. This, usually, does not require sedation and can be very effective if the bitch is bred at the right time in her cycle or with multiple breedings. Usually used with freshly collected semen or chilled. If you are going to go through the trouble and expense of shipping in extended fresh chilled or frozen semen then there are techniques that yield a higher success rate such as:

- 2. Surgical deposition of the semen directly into the uterus. This requires anesthesia, a surgical incision, bringing the uterus to the surface and direct injection of the semen into the uterus.
- Cervical Deposition Depositing the semen into the cervical canal with a catheter. This does require a light level of sedation and seems like the best blend of effectiveness and lower risk than the surgical deposition.

We have a wonderful dog, Joey, that we were planning to stud to Maise, but he had an unfortunate accident three years ago (we're not sure how it happened as we were not home, but we think he fell off the sofa). Joey fractured his spine and is unable to use his back legs to walk, but he feels fine, is the ruler of his domain and definitely wants to "be a dad". Since everything else seems to function normally—especially his attitude for life! We are planning on collecting him and using either technique 1 or 3 to see if we can get a litter by him.

Difficulty Getting Pregnant

If the bitch has been bred effectively, in other words:

- 1. Mated with the male or artificially inseminated.
- 2. The sperm has been checked and is normal.
- 3. Estrogen and LH levels were appropriate in the female at the time of breeding.

And the breeding is unsuccessful, there may be other hormonal issues interfering with pregnancy. The most common hormonal deficiency contributing to infertility, in my experience, has been related to the thyroid. Many veterinarians check only the total T4 in standard blood tests and this may not accurately reflect the available (or free) T4. My suggestion is that one tests a full thyroid panel including total T4, free T4 and T3, especially if there are other symptoms of hypothyroidism.

There are many nutritional and herbal supplements on the market intended (or advertised) to enhance the probability of the dog getting pregnant, but we have found that a high quality balanced diet and a good daily vitamin protocol should be sufficient without other, potentially harmful, items. As an example, Red Raspberry is often recommended for breeding bitches. The main effect of Red Raspberry is to enhance labor contractions so, while I do not think it hurts in small amounts, overdoing it can actually be harmful during the early stages of pregnancy. Use in the final week of gestation makes a lot more sense.

Homeopathic remedies can operate on different levels:

Hopefully, by this chapter, you should be starting to understand the difference between "deep" or "constitutional" use of homeopathic medicines (remedies) and

a "first-aid" or "acute" type
use. The constitutional or
deep remedy addresses
the animal as a whole,
including the deeper
underlying conditions leading to the





symptoms we see throughout life. Acute or first aid use narrows the focus of the remedies to a more immediate issue. Sometimes this is necessary because of the critical and immediate nature of the symptom. Think of a case of asthma as an example. A person or animal having an asthma attack needs immediate attention and there are remedies that can and do help in the moment. However, the asthma attack and tendency to have asthma, comes from a deeper imbalance of the immune system and the Vital Force. The constitutional homeopathic approach of therapy would be used over months (or years) to try to get to the root of the imbalance and correct it so asthma attacks do not occur or are milder and less frequent.

Another example is epileptic convulsions. There are remedies that can help during a seizure episode to break the cycle or stop the seizure. We can also use homeopathic remedies to correct the "underlying reason" for the seizure. It is important you grasp this difference so, when we discuss homeopathic remedies for pregnancy, labor, delivery and post-partum care, you realize we are addressing the "acute situation."

During Pregnancy, labor and delivery, we are treating the immediate/acute symptoms and using the selected remedies in a "first-aid" manner. Here, the rules of administration and repetition can be different. In constitutional therapy we may use a remedy weekly, or monthly, or even just one time depending on the reaction and progression of the patient.

In a "first-aid" use (like labor or delivery or mastitis), we might repeat a remedy every few minutes and, if the presentation changes or the remedy does not help, we might move on to the next remedy selection in a short time. Also, once the remedy has worked, we stop it. There are rarely aggravations (worse before better) in first-aid homeopathy.

I often recommend constitutional therapy for the pregnant bitch, since pregnancy is a wonderful time to use remedies for the deeper underlying issues. The Vital Force is so alive at this time and these mothers-to-be are, usually, very remedy responsive.

Common Homeopathic Remedies Used in Pregnancy, Delivery and Post-Partum

That said, we should now address the more acute remedies generally used for prenatal, labor, delivery and post-delivery issues. This list is only a general guideline. Each case can differ and there are many other remedies that may be more appropriate. Establishing a relationship with a trained homeopath is always a good idea. Since these are similar remedies and conditions seen in people, human homeopaths and midwives trained in this area can be a great resource.

Here are the remedies we usually recommend in a homeopathic birthing kit. The standard potency is 30C. Some of these remedies are very common in pregnancy and delivery, and some not so much, but are valuable to have on hand. I did a study of the homeopathic literature and then distilled the many references down to a short paragraph or two, just to give you an overview. You'll see some of the remedies reference people and childbirth, and I left some references in people terms to help you gain a better sense of what these animals might look like. I also attempted to give a very brief overview of the "essence" of the remedy in general practice since, as I previously tried to describe, and may not be easy to recognize, the difference between remedies to the inexperienced. Please don't think of this as a cookbook, but as more of an overview to help you become more acquainted with remedies that we have found effective.

Aconite – is generally thought of as a remedy for fear, terror, and severe emotional and physical shock. The aconite patient usually exhibits fear that borders on panic and often terror. I have not used aconite very often in whelping but have, definitely, had cases where it has helped calm the TERRIFIED mom to be. This remedy is also helpful when the milk is not coming in. In people there is extreme fear of dying during pregnancy and delivery.

Arnica - is one of the better known and widely used homeopathic remedies. That is because it readily addresses all kinds of injuries, strains, bruising and just about anything else associated with trauma. It is also, commonly, used (from a homeopathic perspective) postoperatively. Here are some of the situations, where we might use arnica in whelping situations. Always consider arnica after birth for bruising and inflammation, but also during labor if puppy is large and pushing long and difficult. Some important uses include, trauma, retained placenta, bleeding during and after delivery and after-pains while nursing.

Arsenicum - realizing that arsenicum is a MAJOR remedy in homeopathy, I was surprised at the narrow focus of symptoms I found during my searches when relating to pregnancy and delivery. Arsenicum is, usually, associated with urinary weakness, incontinence pre and post-partum, vomiting and diarrhea (and hiccups) when one does such a narrow search. In normal veterinary homeopathy, the typical "picture" of an animal that might need arsenicum is one of vomiting, diarrhea, desires for sips of water, tendency to seek warmth and restlessness. (This is one of the main remedies for food poisoning so, anyone having gone through that should have some idea of this picture, albeit much milder one would hope.) These patients find it hard to settle in one place for very long. They can be jealous and demanding and tend to get their way. If you have a case nearing delivery with this level of agitation and perhaps some severe gastro-intestinal issues, I would always consider arsenicum.

Belladonna – In people, one uses this remedy with sudden or violent onset of labor, with headache or other pains worse from motion or from jarring. The patient usually is very wide-eyed, dilated pupils.

Carb-veg - This is a remedy of weakness and collapse. It is also helpful in overeating with diarrhea, like arsenicum, it is a food toxicity remedy and the patients often show weakness, overall. I have seen it help in dogs that blow their coats after delivery but the central idea that they are drained and weakened by the entire experience to the point of collapse. This remedy can also help with a retained placenta where there is a slow, oozing hemorrhage. Has been used and helped in mastitis but, like the hair loss, the rest of the animal shows a weakened and lackadaisical state and is not the most common mastitis remedy by far.

Caulophyllum (Blue Cohosh) - One of the most common childbirth remedies. It can promote contractions at regular intervals stimulating labor. Often used with uterine dysfunction, weak contractions, failure to dilate and labor not progressing. The patient seems tired and depleted from unsuccessful effort. In my experience, this is one of the most common remedies for this situation (where labor has weakened or stopped in the middle) and the bitch is tired. You always need to be sure that a puppy is not stuck, so use common sense and do not just keep giving remedies thinking they can force the situation like oxytocin will (a drug used to stimulate contractions – sometime called a "clean out shot").

Chamomile - Patients can be extremely sensitive or intolerant of pain and be cross and irritable. They may show abdominal pain during pregnancy – often with diarrhea and can act like they demand attention then refuse it when offered. Other indications include uterine bleeding, scant milk, and excoriated nipples. This is a very common remedy in babies and puppies that are fussy, probably colicky, and can have greenish diarrhea and are hard to comfort.

Cimicifuga (Black Cohosh) - This remedy is very similar to Caulophyllum but usually presents with a higher degree of anxiety and fear rather than just drained and depleted. If available, I would try it in cases where Caulophyllum was not helping and the bitch seemed to be getting more anxious or fearful.

Conium – In regular homeopathic practice, Conium is a great remedy for breast inflammation (also cancer and prostate issues) and has a major "affinity" for ailments of the breasts. I have had many cases of mastitis respond well to this remedy, so I add it to the birthing remedy kit more for this specific issue.

Gelsemium - Another remedy with a remedy "picture" very close to Caulophyllum and Cimicifuga, with uterine dysfunction (not working right) and more nervous excitement. Gelsemium should be considered if Caulophyllum fails to act.

Nux-vomica - is another major homeopathic medication and has many applications in normal practice and in our specific scenarios. The nux patient is often averse to company and consolation, overassertive, has pains and upset stomach. In life and in pregnancy, it is a great remedy for back pain and sciatic issues. Constipation, extreme sensitivity – "leave me alone" or "do not pet or brush me"

are typical examples. I like to ask people to relate to the idea of a "hangover" and that can give one a good idea of the acute nux state in people.

More specifically, in pregnancy, one can see this grumpiness and constipation, vertigo, desire to hide or be left alone, vomiting and back problems. If you use nux in your bitch and do not see improvement in these symptoms, consider a more detailed checkup since many of these symptoms could indicate a deeper problem with the pregnancy. Often, however, one or two doses bring about great and rapid relief. I have also used nux in false pregnancy where the emotions match (though usually they are more affectionate and act like they could use pulsatilla).

Pulsatilla – Pulsatilla is one of the most frequently effective and useful remedies in all phases of the pregnancy. I prescribe this remedy more frequently than any of the others, especially in Cavaliers. The Pulsatilla patient is usually very needy, wants attention and company, and prefers cool or open air. Pulsatilla can be very helpful in drying up the milk while weaning the puppies. Do not worry, I have NEVER seen it dry up or lower milk when used for other reasons in the first few weeks after delivery.

The bitch that may benefit from pulsatilla will not leave the new puppies for anything. You carry her out to the bathroom and she runs to get back with the pups. While some of this can be called normal right after delivery, it can become detrimental to the mom and a few doses of pulsatilla may help alleviate that anxiety.

Pulsatilla can also be useful in post-delivery vaginal discharges, especially when the emotional symptoms match. It can be helpful for vaginitis and cystitis during the pregnancy. Most pulsatilla responsive discharges are yellowish. It is also a superb remedy for difficult labor or retained placenta with bleeding and pain.

Secale – Secale is also a major remedy for post-partum bleeding, diarrhea after delivery and convulsions during or right after delivery.

Sepia – The key ideas behind sepia (in people and animals) are depression and irritability, lack of enthusiasm, loss of affection. The sepia patient often has desire to escape or be alone. This is the bitch that is not good with her puppies; she may be growling at them and not happy to be around them. In people this is a famous remedy for depression and fatigue, both in life and especially post-partum. Having the feeling of too much responsibility of taking care of new baby is well documented in people and seems to translate well to new puppy moms also.

Staphysagria – This is a powerful emotional remedy – abuse victims often respond wonderfully to this remedy and we often have rescue dogs that are pregnant and have been on the street and are real "victims." It is important to also remember this remedy can be VERY useful for

post-partum cystitis.

Countdown to Puppies

Here are a few guidelines to help you to better gauge when to expect those pups. First is, of course, use a whelping calendar. If you know the exact breeding or insemination date, you can be fairly accurate in predicting that sixty-third day. Unfortunately, not every dog whelps on the six-

ty-third day. Some deliver a few days early and some can be a day or two late. Also, since there are usually multiple breedings during the fertile time, we tend to have more of a "window" than a firm date. As you start approaching day fifty-eight from the first breeding, we like to take the bitch's temperature around the same time each morning. It is best to do this with a rectal thermometer for precision rather than an ear (aural) thermometer since they seem to be more consistent. Usually the bitches temperature will drop at least one degree twenty-four hours before labor. I have found this to be consistent in most cases. Often twenty-four hours before labor the breasts will start to fill with milk and her mood may change. She could become more restless, fidgety, anxious or needy but usually there is a significant change. She may also lose her appetite.

Be Safe

As you can see, many of these signals, of the upcoming labor, could also be mistaken for symptoms of illness, so one must always be aware and ready to react should this be the case. Most of our Cavaliers have whelped in the early morning hours (or at least started) and the night seems to be more common than during the day. It is important that you set up your whelping area and whelping box a few days (at least) before the expected due date. Make sure you have everything on hand you may need rather than have to scramble at the last minute.

These items should include:

- A safe and comfortable and PROTECTED area for her to whelp.
 We usually use one of our larger closets upstairs in the bedroom. They like privacy and safety but we need a little room to maneuver, decent lighting and away from drafts.
- 2. Have plenty of dry towels. As soon as a puppy is born and out of the sac we like to give it a good rubbing (after making sure the mouth and nose are clear) to get it breathing on its own and then let mom take over with her licking for a bit.
- 3. A little ear nose bulb syringe is great to have on hand for these times
- 4. A way of keeping the puppies warm. Nowadays there are heated whelping nests that are very convenient. Be careful using heating pads as they can cause burns, plus if they get wet, there can be the danger of electrocution. We do use a heating pad placed under a few bags of expired IV fluids to create a heated mini waterbed. This is a place to put the puppies while another is being born or we are taking mom out or just clean-



- ing up. A SPECIAL NOTE: if you taking mom out in the dark, take a flashlight, cell phone, a towel and watch closely. We have had cases where we thought they were squatting to urinate and they actually delivered a puppy. This happened with our Golden Retriever but we discovered the puppy a short time later and it did survive. We were lucky and a learned a very valuable lesson.
- Have some latex gloves and some sterile lubricant in case you need to do a vaginal exam to feel if a puppy nose or tail is present but stuck.
- 6. A small flashlight can be very helpful in taking a good look to make sure there is not a tail or back legs presenting in a breach birth. Breach births are not uncommon, and usually do not present a problem if you get to them quickly and apply slow, steady traction (pulling) to help them deliver.
- 7. A hemostat, scissors and something to tie off the cord. There is a product called umbilical tape which is inexpensive, or one can even use a little bit of string. Usually bitch will rupture the sac, and then try to chew the cord. We prefer to separate the cord ourselves. I try to clamp or tie the umbilical cord one-half to one inch away from the belly, and then tear the cord with my fingers or cut it with a scissors. The stump of the cord will shrivel, dry up and fall off, so better leaving it too long then too short which can become a potential umbilical hernia.
- 8. Keep a supply of puppy milk replacer and a nursing bottle. Every breeder has his or her own preference. Karen and I prefer Esbilac goat's milk formula if we need to supplement our pups. Be aware, some puppy or kitten bottles come with nipples that are too big and some need a hole in them or the current hole made bigger. We use a hot needle to poke through and enlarge or create a hole in a bottle nipple. It might make sense to have a couple of different sizes or brands of nursing bottles on hand rather than scrambling at the last minute.
- 9. A bottle of Rescue Remedy (we like the five flower formula from FES Flower Essence Services).
- 10. A homeopathic birthing kit. There are a number of these on the market, we like the one from Washington Homeopathic Products in Bethesda, called their "Birthing Kit" or have on hand, some of the more common remedies listed above.
- 11. A notebook and pencil so you can record times of birth, presentation, color, sex, and anything else you want to know, like markings, so you will actually know who was born when and who is who.
- 12. Postage scale. We weigh the puppies at birth and then at least once a day to make sure they are progressing properly. I mentioned, in the earlier part of the chapter, that this helped us detect the puppy with a cleft palate that appeared to be nursing but wasn't gaining any weight. By weighing them daily, this allowed us to start tube feeding him immediately. If you want to see the video we made on tube feeding and have those supplies, there is a link to the YouTube video we did back when Peanut was born in 2004. Visit our website at www.naturalholistic.com for a link.
- 13. Have a digital camera, because you're going to want to take pictures right from the beginning. We have actually used a webcam multiple times, and (since I was always a computer geek) we had one of the first puppy cams before they were so popular. There are some great inexpensive webcams that are wireless, that can hook to your computer and allow you to login from anywhere or just automatically snap a still photo and update your website every few seconds or minutes.

14. A telephone nearby and try to keep the phone on you if you take her outside in case you have problems and need to get assistance.

I think that should about cover the basic whelping kit along with some of the potential issues you may have to deal with during the actual delivery. Each dog seems to have its own whelping rhythm and issues. As a very general rule, puppies usually deliver about every forty-five to sixty minutes but sometimes they are two or three hours apart or longer. We have seen puppies twenty minutes apart and some twenty hours apart (I consider this a problem but have seen it happen and have had a healthy pup).

Most likely, prior to the next puppy, you will see increased agitation in the bitch, scratching to make a bed or other behavior that lets you know another puppy is on the way. If the pattern changes radically, be proactive and not complacent. For example, if the bitch has delivered three puppies, each an hour apart and all of a sudden it's been two or three hours and since you had an x-ray, you know there are more puppies in there, you need to do a digital exam, call your whelping service or veterinarian for advice, as you could have a stuck puppy. If she's not having contractions, or her contractions have weakened, you may want to intervene with a homeopathic remedy as listed above.

Things To Watch After Delivery

This post-partum period is often a very intense time for everyone. You will probably be sleep deprived, nervous and running on adrenaline (and coffee). There are things that you need to monitor, as the first five days post-delivery are critical. A little vaginal discharge or bleeding is not unusual and, most likely, not a concern. If mom is eating well, has milk, the puppies are nursing, the pups are staying warm and gaining weight then you are probably safe to just observe.

Be on the lookout for any puppy that seems to be lagging behind the others. Daily weigh-ins (and accurate notes) are a good way to monitor this. The puppy that is lagging might need supplemental feeding since the bigger, stronger ones tend to push the smaller, weaker ones off the nipples. You may need to be the nursing hall monitor and make sure that they all get their fair share.

Keeping daily track of mom's temperature post-delivery is also a very good idea. New moms, with larger litters, can develop "milk fever" (low calcium) since the flood of milk may deplete their calcium levels. A rapidly elevating fever and weakness can be a good warning that this is happening and allow you to intervene before they go into later stages which can include; very high fever, paralysis, and convulsions. Making sure they have enough calcium (we use cottage cheese) and sufficient calories, while nursing, are a good prevention.

Many veterinarians used to (and still do), routinely recommend, an injection of antibiotics and oxytocin, after delivery, to "clean them out." I used to do this but have not done so for about twenty-five years and don't think it's necessary in a normal situation. However, you must trust your own instincts and, hopefully, have a veterinarian in whom you have confidence and a support group with experience.

Importance of Testing in Responsible Cavalier Breeding

No chapter on breeding Cavaliers would be complete without a discussion of the best practices when it comes to testing your breeding couple BEFORE you consider breeding. You should also have a thorough understanding of the lineage (pedigree) and that should



be a major consideration in any breeding decision.

There are a number of genetic issues that we have been trying to eliminate in the Cavalier King Charles Spaniel for decades and there are strong club guidelines about testing, and limits on, responsible breeding. This includes; the age at first breeding for the female, heart clearance, eyes, hips and knees.

Newer problems like SM (syringohydromyelia) are also important considerations. If you are reading this for your general knowledge and thinking of buying a puppy – be sure the mother and father were properly tested and certified before their "union." This is not a guarantee that problems will not develop but it goes a long way towards avoiding problems and supporting responsible breeders.

Hopefully, this chapter has given you a stronger background and understanding on breeding and puppies. It should be used as an adjunct and not a replacement for proper veterinary care and/or guidance from the many sources of support available in the Cavalier world.



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