

[Breeding frequency and bitch age](#) March 30, 2009 Filed under: [Dog Health](#), [Responsible Breeding](#), [puppies](#) — rufflyspeaking @ 3:55 am

FOLLOW UP ON PYOMETRA

<http://rufflyspeaking.wordpress.com/2009/03/31/followup-on-pyometra-pyometria-metritis/>

Joanna Kimball, Blacksheep Cardigan Corgis).

None of what I'm going to say is new or should be controversial (it's well accepted by repro vets and every single repro vet I've talked to about this has said the same thing), but some of it is not necessarily part of the conventional wisdom that breeders tell each other.

Both aspects of reproductive health—the “right” age to breed a bitch and how often you can or should breed her—have to do with how the uterus and ovaries function. That does not change from bitch to bitch (hopefully, anyway!) or from breed to breed. Some breeds have moved into a practice of breeding maiden bitches at an older age because of specific health issues within those breeds that do not show up until the dog has entered middle age; waiting allows them to screen for these issues a little more effectively. However, that doesn't mean that “good” breeders of all breeds wait, or that waiting longer makes you a better breeder if you are not involved in one of those at-risk breeds. Most of us should be looking most closely at what is best for our bitch, what practices lead to longest overall health for her.

The key to understanding reproductive health in dogs is knowing that, as far as a bitch's body knows, there is no difference between being pregnant and not being pregnant, after a heat cycle.

Those of us (humans, cows, horses, etc.) that cycle on a regular basis prepare our uterus to accept a fertilized egg or eggs every month or so. For a couple of weeks after ovulation we have a higher-than-normal progesterone level, which makes the uterus, which has grown a bunch of soft blood vessels and tissue, keep those vessels and tissue thick and strong so a fertilized egg can land on a lovely spot where there's lots of blood to suck up and start growing its own little blood vessels and eventually you end up getting no sleep at night because your four kids are DRIVING YOU INSA.. Oh, sorry, side tracked.

Anyway, for humans and other repeated cyclers, when there is no fertilized egg, the body gets the signal very quickly and the ovaries stop producing progesterone and the lining of the uterus breaks down and goes back to normal, at least for another few weeks until ovulation occurs again.

Dogs have a completely different system.

It starts out roughly the same, with the uterus preparing for the eggs by growing a good plush lining, and the eggs ripen on the ovaries and hooray, there's some lutenizing hormone, and the eggs are released. It gets a little weirder from there, because unlike humans that have fertilizable eggs within a few hours of ovulation dogs' eggs take two or three days. And unlike humans, whose eggs implant and begin to grow into the blood vessels about a week after ovulation, dogs take about three weeks. But the process is basically analogous.

Where dogs are VERY unlike us is that there is never any signal given to the body that there are in fact no fertilized eggs to nourish, that this has been an unsuccessful heat cycle.

Instead, a dog's progesterone level stays high for the entire 63 days that she would have been pregnant; her uterus develops the incredibly effective and thick system of blood vessels that would be necessary to nourish an entire full-term litter.

You can honestly say that the only difference between a bitch who was bred and a bitch who was not bred is how many calories she's burning—either she has to support a litter or she doesn't—because her body honestly doesn't know any difference. Aside from some relaxin to loosen her joints (which is present in pregnant dogs but not in non-pregnant ones after the heat cycle is over), the hormone levels are the same.

This would all be just a veterinary curiosity were it not for the fact that the body doesn't like growing things and then not using them. When the uterus grows this tremendous blood supply and then nothing happens, with each cycle there's a greater risk that the uterus will get cystic (lots of cysts in the lining, which means fewer good implantation sites and smaller and less fit litters when and if she finally is bred) and (far worse) that the uterus will become infected. Infection in an area that is super-plush with tons of blood vessels and lots of soft tissue? Bad news. Pyometritis kills a LOT of bitches; forces the dangerous emergency spays of many more; and in the BEST case, when you catch it and can give the bitch prostaglandins to force the infection out and hopefully save the uterus, the treatment is incredibly painful to the bitch and doesn't always work.

The upshot of this whole situation is that bitches are not meant to have empty heat cycles. All else being equal, it is better and safer for them to be pregnant at each heat cycle (or spayed) than it is for them to remain unbred.

Now of course not all things are equal. We all keep bitches unbred so we can finish them, or special them, or because it's not a good time for a litter according to our schedule, or because we don't have the time to screen puppy people, etc. We typically skip at least the first cycle if it came before the bitch was fully grown, so she can put all her calories into growing. I think that's a perfectly reasonable tradeoff to make, from a veterinary health perspective, though I am not sure it *must* happen; in production-based species like sheep and goats we know that breeding the young females before they are done growing is actually beneficial to them (when you look at lifelong production and health) and they catch up just fine. But I'm not comfortable looking at a bitch who's still a puppy with

puppies, and I would not want to risk a glitch in growth, so waiting until the bitch is fully adult is something I'd always advise.

I don't think it's necessary to wait a full two years, though—that became conventional wisdom because OFA gives you a final number at that age. But if you PennHIP or if you choose to rely on orthopedic opinion, or if you have a breed with virtually no dysplasia, there's no reason to wait until the full two. For example, Bronte had her first heat at 15 months (normal for Betty Ann's dogs and normal for my raw-fed dogs—I'd fall over in shock if I had a bitch cycle at six months old). If she had waited for the first cycle until she was 18 months (which is not out of the realm of normal) and she had had her hips and eyes done by that age, I would have been totally comfortable breeding her on that first heat.

Skipping that first season, or the first couple, is certainly totally normal. Sometimes we have to skip more because of our needs or timing. But after full growth has been attained, she's finished or shown as much as you plan to show her, health testing is done, and the bitch's reproductive life is ready to begin, what is not supportable, from a health perspective, is **INSISTING** that bitches skip seasons; I've even heard people say that the "best" breeders skip two seasons between each litter.

This is purely us thinking of dogs like humans—we get tired and worn and unhealthy if we produce babies every nine to twelve months, so shouldn't we give dogs at least a year? But it's not the same thing. Humans are pregnant for nine months, and we are designed to lactate for another two years (minimum) after birth. If you put a pregnancy in the middle of that lactation you deplete yourself; you want to complete the full lactation (or the time the lactation would have lasted if you choose not to breast-feed) and then get pregnant again. This leads to babies two or three years apart, which is (if you look around at your family and friends) what usually happens anyway and is certainly not viewed as unusual or dangerous.

Bitches are pregnant for nine-ish weeks (though they are actually nourishing puppies for only six of those weeks), they lactate heavily for about four or five weeks after that, and then typically have at least two months before their next heat cycle. Unless her calories were so inadequate that she did not recover her normal body weight during those two months (and if she didn't, I'd be looking seriously at how she's being fed and cared for) there's no reason she cannot have a normal and safe and uneventful pregnancy on the next heat. There is **CERTAINLY** no reason to rest her for two seasons; in fact, you're making it a lot more likely that she will have reduced fertility or fecundity (number of healthy puppies) if you do.

I never bred my Danes back to back because I never had the chance—there was always some reason that the timeframe was bad for me or the family. But I would not have hesitated to do it for any reason beyond bad timing. I absolutely **WOULD NOT** accept weight loss on my nursing bitches—I refused to say that it was just part of having puppies. Danes have a reputation for getting absolutely skeletal while nursing, so I put thousands of calories in front of them every day, cooked for them, fed them sandwiches, made them

puddings and stews and fed six raw chicken backs and three pork bones a day, and it totally worked. Even with my enormous litters the mom never went more than a couple of pounds below her normal weight. I have a picture (well, HAD a picture) of Ruby nursing a dozen two-week-old puppies who are as fat as sausages and she looks like she never lost a step. My bitches never had any catching up to do, period, so there was no question that they would be able to handle it calorically.

So, Kate, especially given the fact that Bronte appears to have a long space between seasons (eight or nine months), if you want to breed her on any particular season and she has come fully back to normal weight and condition, you should feel perfectly comfortable doing so. In fact, if you keep her “barefoot and pregnant,” not skipping years of her life, she is much more likely to be able to sustain healthy heat cycles and pregnancies well into her middle years. She has some beautiful VERY healthy breeding behind her, bitches who carry litters at age 7 or 8 and never even blink, freewhelters and happy moms, so the more you can do to support the fitness that she brings to the table, the more she will give you as a foundation bitch. Remember that as far as her body is concerned, as far as ANY bitch’s body is concerned, she IS having two litters a year. You don’t do her a favor by having one or both of them be invisible.

My final piece of advice is that when she is done, when you’re confident that you have no need or desire to breed her again, whether she’s four or whether she’s eight, SPAY HER. I would never leave an intact bitch cycling endlessly—it’s just way too dangerous in terms of metritis. Either you use the uterus or you remove it. It’s all about what is safest and healthiest for her.

http://www.thedogplace.com/Reference/Mastiff/Ref_Arney_0601When&How_Breeding.htm

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