

Good Dog Pod 5 – How To Get Your Bitch Pregnant

Here at The Good Dog Pod, we are all about supporting dog breeders and responsible dog ownership. Join our mission and help change the conversation, because we are all stronger together. Good Dog is on a mission to build a better world for our dogs and the people who love them through education and advocacy. The Good Dog Pod provides dog lovers with the latest updates in canine health and veterinary care, animal legislation and legal advocacy, canine training and behavior science, and dog breeding practices. Subscribe and join our mission to help give our dogs the world they deserve.

Laura Reeves:

Welcome to The Good Dog Pod. I am your host, Laura Reeves. And we have a super fun set of guests today. Cat Matloub, my co-host who is head of partnerships and legal affairs at Good Dog is joining me. And we're having a conversation with one of my very favorite people in the entire world, Dr. Marty Greer, DVM JD, I might add, who is the owner of Veterinary Village in Wisconsin, veterinary practice specializing in reproductive services for dogs. She is a board member for the National Animal Interest Alliance. She is the director of veterinary services at Revival. And my favorite part, she is the veterinary voice for Pure Dog Talk, and just all around an amazing human. So, welcome Marty. I am so happy to have you join us on The Good Dog Pod.

Dr. Marty Greer:

I always love being here.

Laura Reeves:

It's amazing. And we are talking about dog breeding and getting your girl pregnant. Getting your bitch pregnant is like step number one, right?

Dr. Marty Greer:

Well yeah, it's kind of a critical first step.

Laura Reeves:

So, talk us through some of the things that our breeders who are listening need to pay attention to when they're planning their first litter, or planning their next litter.

Dr. Marty Greer:

Sure. So, probably the two most important places, or the two most likely places, that we see problems with fertility are going to be the female's timing, so knowing that we've got good timing on the front end, using progesterone testing, and on the male side, having good quality semen that's delivered into the uterus. So, those are the first two key pieces to making sure that we have good fertility or good chances of fertility. Now, there's lots of other pieces to it and we can need to go down a couple of different paths to make sure we cover everything. But I think those are the two things that I start with.

Dr. Marty Greer:

The third thing that I frequently talk about, and it's increasingly evident to me that we have some issues with, are the nutrition of the bitch.

Laura Reeves:

Yes.

Dr. Marty Greer:

And I think that's a really important aspect. And it's one that I've started to move up the list on questions that I ask of clients are, what they're feeding, how they're feeding, and a few other details about that. So, we can go down a couple of different paths with it.

Laura Reeves:

Yeah. So Marty, let's actually start with that, because I think there's a lot of really maybe untapped and very interesting pieces to this on the nutrition piece. I want to get to the progesterone timing, and I want to get to semen quality and some of those things as sort of overviews, but I really would like to hear more about what you're finding and what you are learning about nutrition, what people feed, how they feed, and the impacts that it has on their litters, since we know that it can have tremendous long-term consequences.

Dr. Marty Greer:

Absolutely. And I guess I've become more of a believer in this in the last few years with some of the advent of the grain-free diets and some of the other concerns, but it affects both male and female fertility. The difficulty is we don't have any good studies at this point. But it would be lovely if we could find someone who would be willing to run some studies for us to assess quality of diets and nutrition. So, most of the diets on the market are perfectly fine for maintenance diets for our dogs. Two years ago, we started to see some concerns with the grain-free diets and how that related to dilated cardiomyopathy. And there's still a lot of questions that I thought, after two years of discussion, we would have a better handle on, but we don't. We do know that taurine and some of the other amino acids in the grain-free diets were concerns.

Dr. Marty Greer:

And it looks like... Without getting too deep into DCM, dilated cardiomyopathy, it looks like there's probably three general categories of disease there. One is genetic. One is nutritional. And one is, we don't really understand. So, there's idiopathic causes.

Laura Reeves:

Interesting.

Dr. Marty Greer:

So, I thought by now we'd have a better handle on it, but we don't. So, I started talking to clients more and more about diet two years ago when this whole thing came to be.

Laura Reeves:

Right.

Dr. Marty Greer:

And as it turns out, there's a lot of differences in diets. And we have a lot of clients who are feeding small company brand diets. We have clients feeding grain-free. We have clients feeding raw, commercially made raw. We have clients feeding raw meat diets that they make themselves. And then, we have other homemade diets. So, there's kind of a lot of categories for what we see here. And the concern I've had is, as frequently as we talk about this, I can see that there's a pattern that's been coming evident that the three major companies that make dog foods, that are the only ones that I'm aware of that regularly have feeding trials for their dogs, are going to be Hills prescription and science diet, Royal Canin/Eukanuba/Iams, which is all which is all under the Mars umbrella, and Purina.

Dr. Marty Greer:

So, we see more success in the dogs that are feeding these three brands of diets than we do in some of the other brands of food. Even though the other brands tend to be fairly heavily promoted for breeders and cost might become an issue, I really think we need to look really hard at what clients are feeding and assess whether there's been any changes. And I have some pretty interesting stories that verify this.

Laura Reeves:

Yeah. Yeah. Well, we have our own personal conversation that we were talking about just before we came on air about a situation that I'm personally experiencing as a breeder. So, I think that that has a lot of bearing. And I definitely think that, that's something I'd like to dive into further in a future podcast. But I really believe that breeder's paying attention to what their bitches are eating... and not just their bitches, their stud dogs, right?

Dr. Marty Greer:

Yeah. Interestingly, I think it's important that we talk about the boys too. It's easy to overlook that.

Laura Reeves:

Right.

Dr. Marty Greer:

But semen quality is really critical. A number of years ago, we had a client that came in on a Friday afternoon at four o'clock for a semen freeze on his 11 year old sporting dog. And my staff...

Laura Reeves:

Perfect.

Dr. Marty Greer:

... kind of rolled their eyes and they're like, "Oh man, at four o'clock in the afternoon? We have to do a semen freeze? This is really late in the day for an appointment." I said, "Oh, don't worry. He's 11 years old. I'm sure when he comes in, we'll look at semen. It's going to be poor enough that we're going to say to them, here's some nutritional supplements, go home, come back in 90 days when you've had a chance to improve the quality of your dog, semen. And then we'll talk about freezing it."

Dr. Marty Greer:

Lo and behold, he comes in, we collect the semen and it is tremendous semen quality. So, I am very convinced that there is a nutritional component to this. And I have also received semen from a veterinarian who is a specialist in canine reproduction. And when I got the semen from her 11 year old dog, I looked at it under the microscope. It came in as fresh chilled. And I picked up the phone and I called her. I didn't say to her, "Do you feed supplements?" I called her and said, "What supplements and diet do you feed?" Because it was pretty evident that she was feeding a high quality food. So, there is absolutely positively a correlation between nutrition in the stud dog, and the fertility in the female, that we just haven't really adequately explored from a research perspective.

Dr. Marty Greer:

Diets that are on the market are generally tested to make sure that they will maintain all life stages of a dog. So unfortunately, because it's just their life stages, it doesn't include reproductive abilities. And reproduction is a luxury of the body. Your body doesn't have to reproduce to stay alive. It needs to have a brain. It needs to have a heart. It needs to have those kinds of nutrients to support those organs. But overall, it doesn't have to be able to reproduce. So, that's where some of this problem comes in. Dietary companies don't look at that.

Laura Reeves:

That is fascinating, Marty. I had never even thought of it from that perspective, but that is absolutely fascinating.

Dr. Marty Greer:

Thanks.

Laura Reeves:

Okay.

Dr. Marty Greer:

I think about this a lot.

Laura Reeves:

It is. It's why I love talking to you so much because you think about zebras while everybody else is thinking about Shetland ponies. And I just love that.

Dr. Marty Greer:

Yeah.

Laura Reeves:

Okay. So, talk to us about our girl dogs. Talk to us about our bitches. Most people, I think, in today's society, have understood the science of progesterone timing and some of that, but can you just kind of hit the high points and maybe explore some of the reasons that it is so valuable to a breeder?

Dr. Marty Greer:

Sure. And there's really two reasons that we look hard at progesterones. One of course is to get the females pregnant, because if we don't get the seamen in the uterus at the right time, we're not going to have a successful pregnancy, particularly if we're using stressed semen, which would be fresh chilled and frozen semen. The more long-term that it is stored, the more stressed it is and the less likely it is going to be successfully getting a female pregnant. So, we have to have really good timing. Semen that's frozen has already gone through a step called capacitation. So, the acrosome, which is a little cap on sperm, has already gone through some enzymatic changes during the freeze. So, we put frozen semen in a day later, then we put in fresh or fresh chilled semen. So, our typical timing is progesterone at 5 means ovulation. And five really means between 4 and 8.

Dr. Marty Greer:

It means where we started to see a rapid rise, where they sit at baseline at 1.2 and 0.8, and then 3.1. And then, usually once they get to 3, things start to rapidly climb. But every now and then, we'll have a female that kind of stalls out in that 3 to 5 range, so we continue testing until we make sure that we've exceeded 5 by several fold. We'd like to see it 10 to 20 before we make a decision on using fresh or fresh chilled semen. So, we breed two days after 5, with fresh semen or fresh chilled semen, and three days after 5, if their progesterone is over 20, with frozen semen. So we have two caveats. It's that "if this, then that" kind of rule. So, we have to meet both of those criteria with frozen semen before I'm comfortable in breeding. Now, we have two progesterone machines in our practice.

Dr. Marty Greer:

At one time, we were running five because we wanted to assess the different machines, and have a pretty good handle on what went on compared to Marshfield lab and IDEXX labs, along with the progesterone testing that we were doing in office. So, we're now down to two machines. And many, many veterinary hospitals have the ability now to run progesterones because IDEXX catalyst machines and the catalyst one machine will now run progesterones in office. Now, the veterinarian at that office needs to buy the test kits for it, but the catalyst machine is running very accurate numbers on progesterone. So, a lot of veterinary clinics that could... previously, until about a year ago, could not get progesterone results same day, now can run them. And from the time the blood sample goes in the machine to the time the result pops out the other side, that doesn't count the time to draw the blood, spin the blood, let the blood clot, all the things that have to happen, but it's under 10 minutes before we have a result. So, it's great for timing breedings.

Laura Reeves:

And Marty, just to inject just briefly, this is a very, very different process than what used to be in-house in most clinics, where you did the drop of blood and it was a blue or pink. I mean, it was almost like a pregnancy test.

Dr. Marty Greer:

Right.

Laura Reeves:

Those old ones were not very effective.

Dr. Marty Greer:

No, those are semi quantitative. And they're better than nothing, but they're not quantitative enough. They don't give you a number that allows you enough accuracy to make a decision on a sophisticated breeding like with frozen semen. And most people with frozen semen are very careful with the semen that they have. They don't want to let someone else have it if they're not going to be good stewards of the semen utilization. So, it's really important that we do that. So, the other reason that we want to do progesterone timing and know when the females ovulate is for the purpose of timing the time that she's due to have the puppies. So, a lot of people are like, "Well, I can get her pregnant." Well yeah, I can get a lot of dogs pregnant too. But the question isn't whether we can get her pregnant, the question is, can we get her unpregnant? Can we get her unpregnant at the right time? Can we get her unpregnant safely? And what does that all mean?

Dr. Marty Greer:

So, we have some dogs that are high risk pregnancies that need to have C-sections. So, we need to know exactly what day to schedule that for. We have some dogs that go into preterm labor, their progesterone prematurely declines. So, without the knowledge of what the end point should be, we don't have an ability to safely keep the female pregnant with progesterone supplementation. And we don't recommend progesterone supplementation except in very, very special circumstances where it has to be done to support a pregnancy. So, you have to be really aware that there are some definite downsides to doing progesterone supplementation. But without knowing exactly what your due date is, you can't schedule a C-section, you can't keep her pregnant. And we see both primary and secondary hypoluteoidism, that's when the progesterone drops prematurely.

Dr. Marty Greer:

Sometimes, it's because there is something wrong with the litter, and sometimes it's something wrong with the mom. So, we have to be really careful with how we interpret those results. And without knowing our end point, we can't tell. It's really great to be able to put a dot on the calendar and say, "This is exactly when she's due. So, I can go to work. I can go to bed. I can do all the things I need to do and keep my life going. And then, when it's time to have puppies, I know exactly when my puppies are due."

Laura Reeves:

Yeah.

Dr. Marty Greer:

So, I think it's a really valuable tool that a lot of people tend to overlook the use of.

Laura Reeves:

Well... And the stress, right? In the days before, we knew, from progesterone timing, it is going to be exactly this number of days within 12 hours. This is when she's going to have puppies. And so, if she doesn't have puppies when you think she is in the olden days, you spend three days freaking out. Are the puppies dying? Is she dying? Now, you know. If she hasn't had puppies by this, yes, go have a C-section. I mean, it just... For me, it takes such a load off of my anxiety, which I have plenty of.

Dr. Marty Greer:

And really, a lot of people don't realize how narrow the window is for when a bitch is due to have her puppies. We only have 48 hours before to 48 hours after her due date to successfully get puppies out. More than 48 hours ahead of time,

they're likely to be premature. Their lungs aren't mature enough to start developing surfactant. And the puppies just don't breathe when they're born. On the other hand, more than 48 hours after the due date, the placentas tend to deteriorate and decline because they're really programmed to last 63 days. So, as soon as we start to see deterioration of the placenta, of course, we don't have blood flow to the female's uterus anymore to the puppies. So, we start to lose puppies on the other end. So, we have a very narrow window of time. And a lot of people are like, "Well, let's just do what's called reverse progesterones," which is when you do progesterone at the end of the pregnancy.

Dr. Marty Greer:

And I can tell you that, that also has some downsides to it. I had one client that had a breeding at his home that he was unaware of. Now, it was his male to his female and he was planning it anyway. It just wasn't planned for that heat cycle. And he came in to the practice every single day for 10 days in a row to get a progesterone done on his female because she was pregnant with 10 puppies, and he's older, and he wanted to have a C-section. So, we were planning it, but he spent a lot of money on progesterone testing to figure out what day it was due on. And lo and behold, she actually had her C-section done on New Year's day. So, that means I get to also pay my staff extra overtime for them to all come in and assist with the C-section.

Laura Reeves:

Because I'm telling you, C-sections happen. This is my life. C-sections happen on Christmas Eve, New Year's Eve, Thanksgiving day, or while you're away at a major national dog show. That's when C-sections happen.

Dr. Marty Greer:

Exactly. I mean, you can just set your watch to it, right?

Laura Reeves:

Guaranteed. Okay. So, we've gotten our bitch pregnant. We've timed it right. So, when... We were talking about the progesterone timing. We were talking about the nutrition. What else are we watching in terms of conditioning and things that we need to do to take good care of our bitches, to make sure that they're going to get pregnant and going to have a healthy litter a couple months later?

Dr. Marty Greer:

Right. And so, we want to make sure that she's in good physical condition. We don't want her too heavy. We don't want her too thin. The condition that we want to show our dogs in, whether it's in a field event or a confirmation event, may be a lot more lean than you would want to have a pregnant dog act. So, we do like our girls just a little bit soft and squishy...

Laura Reeves:

Fluffy.

Dr. Marty Greer:

... not out of shape, but just a little fluffy when we get them ready to start breeding. So, we need to make sure we do that. If she's recently had a litter... I do want to circle back just for a minute here to do nutrition. If she is recently had a litter, like she had a litter once in the last six to eight months, we want to make sure that she's been kept on a puppy food or a pregnancy diet, so that she is nutritionally where we want her to be.

Dr. Marty Greer:

We know that DHA is depleted in dogs that have had multiple litters. DHA is a fatty acid, and that can be supplemented. It's in some of the supplemented puppy foods. If you see DHA on the label for like the smarter puppy IAMS' products, it's on there, but you can also just purchase DHA. I just bought some at the department that sells nutritional supplements at the big box store the other day. So, it's not difficult to get.

Laura Reeves:

And tell us about the dosage on that, because I think this one is a really important piece.

Dr. Marty Greer:

Yeah. And I don't believe that I have ever seen a published dose, so I just usually give one human adult dose. It may come as a fish oil capsule. It may come as just DHA labeled for pregnant women. So, just one capsule a day, if you've got a small dog, maybe one every other day, because it is a fatty acid. So, you probably don't need it every day, but every other day would be appropriate. So, we want to make sure that she's fit. We want to make sure that she's well fed. And then, we want to make sure that she's got good dental health as well. There was an article published two years ago by the dental group that indicates that severe dental disease, or even moderate dental disease, can set up enough of a bacterial component of a disease that, that can interfere with fertility.

Dr. Marty Greer:

And it shocks me how many people come in with their females ready to breed. And I don't mind breeding a female that's a little bit older if she's been successful in having litters in the past, but they come in with sometimes just really foul mouths. And the time to start cleaning her teeth is not at the time that she starts her heat cycle. And I don't want people hand scaling their dog's teeth at home. I want them to have a professional dental cleaning like three months before she comes into heat. Take her into your veterinarian, have her anesthetized, get underneath the gums good and clean, get her on an appropriate antibiotic at that time to keep any problems from happening in her heart or her kidneys or any other places that bacteria can be seeded into during the time that a dental cleaning is occurring.

Dr. Marty Greer:

And just make sure that she is in top notch shape. You wouldn't expect a dog that's not fit, and well fed, and clean, and healthy to be appropriately getting pregnant. And if we're going to do any kind of medical care, like a surgical breeding or a trans cervical insemination, I really like these girls to have a bath a few days before they're ready to breed. Now, if you're going to be using her as her own teaser bitch, you're going to collect semen with a stud dog with her present, I don't want you to bathe her right as you're walking in the door because you might wash off some of the good scents. But within a couple of days of the time she comes in, get her a good bath. Take her in for the grooming. Or if you have your own grooming equipment with a blower at home, that's great.

Dr. Marty Greer:

Get her a good bath. Get her blown out. Get her cleaned up. You don't want to take some icky smelly dog into the veterinarian. And you don't expect her to have good health if she's walking around with bacteria and parasites on her coat and on her skin. And we forget that sometimes in our kennel situations, that those things happen. So, it's really important. I use a chlorhexidine shampoo because I like it. It's good and antibacterial, and it's safe, and it just cleans them up. It smells good. And they go into the veterinary clinic looking like something you're proud to be sharing and breeding. You don't want some stinky dog coming in and having the veterinary staff roll their eyes after you leave and say, "Ugh, did you see that one? Ugh, did you smell her?"

Laura Reeves:

My vet's the worst. I take my dog in for an ultrasound and she has to use the alcohol scrub to scrub her tummy. And if she can get any dirt off it, she looks at me. And I'm like, "She laid down the dirt, man. Come on."

Dr. Marty Greer:

Yeah, exactly.

Laura Reeves:

I wanted to inject this just really briefly, Marty. Cat, can you speak to very briefly... Good Dog's got a periodontal disease thing going on right now that I think ties to this really nicely.

Cat Matloub:

Absolutely. I was hoping I could chime in. So yeah, we actually just had a webinar on periodontal disease and kind of how serious it is. Dr. Judy Stellar, head of health standards and research, actually worked on a period dental disease initiative with dog breeders when she was at the USDA. And we are currently offering, as part of Good Dog's canine dental health month, which happens to be right now, July, we are offering \$10 off a dental cleaning or dental cleaning product for all breeders in our community. We have different monthly initiatives for exactly these kinds of things, really critical health things that sometimes folks don't focus on. So...

Laura Reeves:

Perfect.

Cat Matloub:

Yeah, excited. Thank you for mentioning that.

Laura Reeves:

Perfect. I was like, "I see you Cat. Your eyes are bugged out."

Cat Matloub:

But I didn't want to interrupt because such critical information.

Laura Reeves:

No, you did good.

Cat Matloub:

All right.

Laura Reeves:

Well Marty, thank you so, so very much for bringing your unbelievable knowledge and skill. And I speak from personal experience, absolute looking for zebras instead of Shetland ponies. I really, really value your input. And I believe that you are a national treasure to the dog breeding community.

Dr. Marty Greer:

Well, thank you.

Cat Matloub:

And Dr. Greer, might I say, when I entered the dog world, my first purchase was your book on canine reproduction and neonatology, which is still the number one dog breeding book out there. And it is still... If you guys, dog breeders, haven't read this, get a copy of this book. I have the signed copy.

Laura Reeves:

Oh my gosh. That is fabulous.

Cat Matloub:

So, I can't believe we get to have the person who literally wrote the book on the deck with us. So, thank you so so much.

Dr. Marty Greer:

Well, thank you.

Laura Reeves:

Awesome, possum. All right, Marty. We'll be talking to you again soon. Thank you.

Dr. Marty Greer:

Thank you.