

## Pure Dog Talk 448 – Nutritional Recommendations in Breeding Dogs

Pure Dog Talk is the voice of purebred dogs. We talk to the legends of the sport and give you the tips and tools to create an awesome life with your purebred dog. From showing to preservation breeding, from competitive obedience to field work, from agility to therapy dogs and all the fun in between, your passion is our purpose.

So hey, crew. As 2020, otherwise known as the year from hell, draws to a close, I have some actual good news to share with y'all. First of all, if you haven't twigged to The Good Dog pod, you should most definitely add it to your downloads. This is a new podcast I'm hosting for Good Dog, with the goal of reaching an even wider audience than we do here at Pure Dog Talk, with great content supporting dog breeders and responsible dog ownership. You can find The Good Dog pod wherever you get this podcast, including Spotify, Apple Podcasts, and Google Podcasts. Our primary topics on The Good Dog pod are training, and veterinary, and breeding and legal advocacy.

And I am so excited because we're going to try out a new format, we're sort of taste testing it. Basically a call-in show concept with an Ask Our Advisors Q&A session with myself, and Dr. Gail Watkins and Susan Patterson from the Facebook repro group. Our first crack at this we're talking about that very first week of neonatal care and fielding questions from the audience, i.e., you guys. So very cool. Second of all, stay tuned for more good news in the new year. This is in advertising speak what we call the big tease. But seriously though, enjoy this month's outstanding Pure Dog Talk and Good Dog pod episodes. Go like the Pure Dog Talk Facebook page so that you can get up to the minute details, and consider joining our patrons community by supporting great content at Pure Dog Talk. Most of all, stay safe, stay healthy and stay strong. Happy holidays to one and all.

### Laura Reeves:

Welcome to Pure Dog Talk. I am your host, Laura Reeves. We have a really great show today. We are being joined by Dr. Marty Greer from Veterinary Village in Wisconsin, and also by Cheryl Bradbury, who's the owned brand's manager at Revival Animal Health. And we're talking today about supplements for your breeding animals. So everybody knows pregnant women need extra vitamins. Well, dogs are not much different. So Marty, can you tell us a little bit, sort of an overview of some of the things that you think about when you're talking about breeding animals, whether they're males or females?

### Dr. Marty Greer:

Sure. And one of the concepts that we need to discuss is that there's a likelihood that some of the commercial diets are not as nutritionally complete as they need to be for all stages of the dog's life, and that includes reproduction. Reproduction truly is a luxury of the body, and it's only going to happen if the body is already been able to take care of its vital organs, then your body can start thinking about making sperm, making eggs, growing babies, all those parts. So it's really important that we don't overlook the micronutrients that sometimes are not mainstream enough for the general pet food company diets to be included in the food.

### Laura Reeves:

And so, what are some of those types of nutrients? We talk about DHA, and we talk about folic acid and we talk about some of these things. Can you give us some real specific for examples of the specific nutrients that we might be looking at in order to make our breeding animals as healthy as they can possibly be?

### Dr. Marty Greer:

Sure. So folic acid, of course, is important to reduce the risk of midline defects, which are primarily thought of as being cleft palates. They can be cleft lips, they can be umbilical hernias, they can be open abdominal walls, spina bifida, a number of those types of midline defects, where during development, the right side in the left side of the body don't find each other. DHA has been determined through a really nice study from Canine Companions for Independence to be essential in brain and eye development for puppies. They were able to prove that with a study of almost 5,000. So those are really important. Hydrates, I think aren't even considered a micronutrient, they're a macronutrient. But carbohydrates over the last few years have fallen in to some interesting categories of the grain-free diets. So we've lost some of the oatmeal, barley, rice, sweet corn, those kinds of things, and they've been replaced by peas, beans and lentils, which are concerning.

**Dr. Marty Greer:**

And then there's a lot of other really little tiny nutrients that are difficult to really completely follow. The HT 42d diet that Royal Canin makes does contain some of those nutrients in quantities that are important for the female during her pregnancy. And that's going to include tyrosine, arginine, taurine, vitamin E, biotin, vitamin A and vitamin C. Now vitamin A we have to be really careful with, because excessive amounts of vitamin A found in things like too much liver or certain supplements can actually cause midline defects, so it's important that we're paying attention to the details. So beta carotene, I mean, there's just a whole bunch of these little tiny nutrients that we assume are all in our foods, but perhaps are not in the levels that we need for bitches.

**Laura Reeves:**

Okay. And then, we know that there are also important nutrients for our stud dogs to maintain sperm development. And you hit on something a little bit earlier that I wanted you to expand on if you could, in peas, beans, and lentils, that there are some questions about how these particular carbohydrate sources are impacting our breeding dogs?

**Dr. Marty Greer:**

Right. And there aren't any good studies in the dog, and I would love to see one of the pet food companies or someone that has a vested interest in canine reproduction step up and be able to do some of this, but to date, we don't have anyone doing that. So the typical young male dog up until the age of about four or five is probably fine on most of the diets that we feed, but there are changes that happen in the kind of testosterone that is made in the testicles. As they get older, it changed the type of testosterone, which changes the development of the sperm. So at that point, we really need to step up our nutrient profiles for the stud dogs.

And for the general group of veterinarians, and there was a lecture about 10 years ago at the Theorio Conference that was done on this, and unfortunately there's really no studies, but it consisted of the speaker calling all the people that are heavy duty into canine reproduction across the United States and saying to them, "What supplements do you recommend for your stud dogs?" And it came down to typically there was a fatty acid supplement, there was some kind of an anti-inflammatory, whether it was ICSB CF Plus or one of the other GlycoFlex types of products, sometimes selenium was included in that, and then L-carnitine, which again is that amino acid that we think of as being associated with the heart problems. But L-carnitine is important in the tail function and development in the stud dog sperm. So it's an assortment, it tends to be a little cocktail that most people put together in their practice for their stud dogs.

**Laura Reeves:**

Interesting. I know having worked for years with some of the reproductive people out here on the West Coast, green-lipped mussel is one of the ones that I've seen recommended. Is that one that you are familiar with?

**Dr. Marty Greer:**

Right. That's the primary ingredient in the ICSB CF Plus and the Perna mussel type products that GlycoFlex and those types of things. And it seems to have an anti-inflammatory effect without it being a drug.

**Laura Reeves:**

Okay. Very cool. Very, very cool. And Cheryl, talk to us about some of the products that Revival has available that are specifically designed, and owned and produced there?

**Cheryl Bradbury:**

Thanks, Lauren. Thanks for having me. Actually, just to add to what Dr. Greer was talking about as far as the green-lipped mussel and those products, Revival has a product out there that's been in use by breeders, actually besides domestically, we've got a few veterinarian breeders that are in Europe that are using it as well and testing it. Oxy Stud has been a product that breeders have depended upon for a long time to supply the vitamin mineral supplement, also a really good amino acid profile, as well as there's a few herbs in there that support the health of the male, his semen, his sperm production and so on. Revival actually just launched a new product called Problem Male. Problem Male does

have that mussel product in there, the Perna that supports the healthy semen production, as well as there's horny goat weed in there and a few other products to help support that male health.

And then we also just launched a new product called Get Him Going, which is a supplement, it's a paste that they use short term that has horny goat weed in there, maca, ashwagandha and so on. There's a ton of herbs in there to support male health as well. Besides the Be Strong that we have in-house and just a lot of different products that support the male specifically. On the female side, we have quite a few herbs that help to get her reproductive system in order or in health. Be Strong is one of those that has been used by breeders across the United States and internationally to basically get her female reproductive system where it needs to be.

And again, a healthy reproductive system is going to cycle on a regular basis, and it's going to support egg production and every aspect of that uterus. And then when she's been bred, we have Oxy Mate that supports the pregnancy with a few different herbs in there, an amino acid profile that's necessary. And then of course, Oxy Momma that supports birth and recovery, as well as milk let down. So the Breeders' Edge product line is the first and only brand that's dedicated solely to making sure that our breeders have what they need to have healthier moms and healthier newborns.

#### **Laura Reeves:**

I just love the fact that you're able to create these, develop these. Talk to us about that process as an in-house, what type of development process that you're offering so that people understand how much has gone into developing these products?

#### **Cheryl Bradbury:**

Well, we have one person on staff that knows just, I swear, everything there is to know about herbs and probiotics, and she does extensive research on that. We also have an amazing nutritionist on retainer with us, Dr. Cheryl Morris, who does a lot of work with the Omaha Henry Doorly Zoo with conservation. She also has her own company for animal nutrition. She has a PhD in animal nutrition from the University of Illinois. And she's the one who reviews our formulations and basically tells us if it's what we need to have in those products. And we have a couple of manufacturers that we utilize that have one of the best manufacturing facilities known, and they're the ones who work through our formulations with us and develop our products with us.

And then as well, we also have a cat veterinarian, Dr. Amy Hanson, she's down in Topeka or in the Topeka area, who we consult with on all of our cat products. So besides having Dr. Greer, who's amazing, and these other two nutritionists and animal people, we feel as though we have a wealth of knowledge to share with our breeders. And having been a breeder since the early 80s and the struggles that I've gone through, as many other breeders, learning specifically how to be a breeder, and then working through all the problems that can come up with birth defects and understanding the genetics of what you're breeding, your nutritional profile, pre health screenings, like if there's dysplasia, and all of the DNA testing and physical clearances that need to be done, we try to be a mentor for breeders at Revival Animal Health. So that's our goal is to mentor our breeders, again, with the results of having healthier moms and healthier newborns.

#### **Laura Reeves:**

One of the things that I love personally, so I love collaboration and I love to see good people, Dr. Greer, Revival, and now Good Dog is working with Revival and offering access and encouragement to some of their breeders to reach out to Revival for some of this information.

#### **Cheryl Bradbury:**

And Revival Animal Health has a staff, a marketing content and creative team that is dedicated to making sure that breeders have all the information that they need. We have a library on our website that talks about everything from, is she pregnant or isn't she pregnant, to eye infections in newborn puppies. Dr. Greer is doing vet minutes on just everything under the sun. And we just, like I said, we want to mentor these breeders and we want to offer them, in some situations, the basics of what they need to know through vet minutes, and then we also have extensive videos for our customers who need to understand how to use calcium the right way nowadays. This is 2020. We've been using calcium the same way for all these years, and there is more research and more information available on how we should be using calcium to support an efficient, productive whelping or queening.

### **Cheryl Bradbury:**

And so, a lot of times we find that when we're participating in some of the chat groups and such that some of the information out there has been passed on from a breeder from 40 years ago that still may work, but in some situations with some of the different breeds that are out there and some of the challenges, health challenges, and DNA and just the genetics of new breeds or breeds, that sometimes that mindset isn't where it should be anymore and we need to move forward. And that's what Revival's trying to do is help mentor our breeders.

### **Laura Reeves:**

Right. And so that's what I say, collaboration.

Hang tight, guys. Got a little bit of information for you. We'll be right back to the podcast in a minute.

Embark is a proud sponsor of Pure Dog Talk.

DNA testing is rapidly growing amongst breeders. And given the importance of these test results to the health of not only each dog, but also that of future generations of dogs. At Embark, they believe it's critical to provide transparency in their testing methods that result in more than 99.99% accuracy for health tests. Embark's innovative testing platform enables the hundreds of genetic health and traits test results provided in Embark's products, while also creating research ready data for use by canine health organizations and scientists. Embark's methods exceed industry quality control standards by also checking the breed, sex and relatives of every sample to ensure DNA samples are correctly labeled and unique identity is recorded.

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### **Laura Reeves:**

Talk to us a little bit about, I think that one of the things that we want to talk about as we're mentoring our breeders, is if we can do a deep dive on a couple really specific ones. Dr. Greer was mentioning folic acid, which I think is one that we can not emphasize enough. So Marty, can you touch on just dosages and where do we find it? Do we find it at Revival? How do we access that? I want people to know, go here, do this, get this much.

### **Dr. Marty Greer:**

Sure. So there's only one published study that we have that reflects what the dose success rates were, and it was a study done by Eukanuba. We can make sure that it's on the website so that people can access that study. But it shows a five milligram per dog, per day dose, regardless of the size of the dog. And that's a pretty big dose. A lot of times we only see something like 400 micrograms in a capsule or caplet when it's purchased over the counter. So you have to read the label, you have to make sure that you're getting the product that you want. And it's one that Revival's been working on raising the amount of folic acid in their supplements to make sure that it's sufficient. And the studies show that the dogs that are clinically and genetically predisposed to developing cleft palates, such as the French Bulldog, the Chihuahua, the Bulldog, the-

### **Laura Reeves:**

Pugs.

### **Dr. Marty Greer:**

Pug, yeah. The short face brachycephalic dogs are the ones that are increased risk, that they can significantly reduce by 50 to 60% the incidents of cleft palates in the studies that they've done. So really it's easy to do. The most important thing though to remember is you need to start at six weeks before the dog is bred. So you can't wait until she comes into heat, you need to start looking at your calendar and realizing how soon it is that she's predicted to come in and get that

started. And because it's a water-soluble vitamin, you don't have to worry about overdosing it. Remember, all the things that we've always been told is first do no harm. So that's where the fat-soluble vitamins A, D, E and K, those can be stored in the body and cause problems. But the B and C vitamins are not at that risk, so you don't have to worry about giving too much other than the cost associated with it. But Cheryl can fill us in a little bit more on the Revival product.

**Cheryl Bradbury:**

Be Strong has a significant amount of folic acid in it as well, and lower amounts of vitamin A so that you're not causing problems. Folic acid though, like Dr. Greer said, we're working on re-evaluating, along with Dr. Morris's help, all of our formulations to make sure that those products have what they need in them. So like Dr. Greer also said, starting early to supplement with Be Strong or other vitamin mineral supplements so that you are building that reproductive system up to be as healthy as it possibly can be before you breed her, and then putting her on a vitamin mineral supplement during her pregnancy. So it's very important. It's not just, oh, she's in season. Let's go get her bred.

**Laura Reeves:**

So I think the next question then becomes, okay, I know I'm going to breed my bitch in 2021. Is it safe to say, okay, I know she's going to come in season eventually, but that watched pot thing, it never boils. So is it okay we can just start her in January? I mean, it sounds like there's not too much because it's water-soluble, is that correct, Marty?

**Dr. Marty Greer:**

That's correct.

**Laura Reeves:**

Okay.

**Dr. Marty Greer:**

And I actually got my job at Revival because of Be Strong. I just have to tell you this story, is I had a client that called and wanted to have me call Dr. B at Revival, who I've since replaced, to ask some questions about reproduction. So I called and he started to talk to me, he came directly to the phone and he talked to me about Be Strong. Convinced me that I needed to buy a gallon of it so I did. And I purchased it, started using it on my own personal dogs and client dogs, and I was astonished at how effective it was in changing the cycle of these females, because we see a lot of females that don't cycle as often as we'd like. Obviously we need at least four and a half months between heat cycles for a fertile cycle to occur.

But there were females going 9, 10, 11, 12 months, and clients were getting frustrated and people were waiting for puppies, and of course that's even more of a concern right now. But we had people that were becoming impatient, and before I would start them on any pharmaceutical agent I had them start the Be Strong. And I was really impressed with how many females come into heat within two to four weeks of the time that we did nothing other than supplement her Be Strong, which should tell us a lot about the nutrients that we're not seeing in the foods and how easy it is to supplement that with just mixing the Be Strong into the food or with some of the newer products that we now have that can stand alone. And Cheryl can talk about the newer formulations of the Be Strong.

**Laura Reeves:**

And one or the other, I'm not sure who's going to want to speak to this, but I want to hear what Cheryl has to say about that. But I also am thinking of another one of my, we were talking earlier about those things you hear from other breeders, your old wives tales, do they work? Do they not work? Kelp. Kelp was always something my mother was a breeder and swore by it. Thoughts on kelp?

**Dr. Marty Greer:**

I have not had any real success with that. I've also heard kelp makes black blacker, so black noses and black spots blacker. I don't know that there's any documentation of that. And frankly, we don't have strong documentation on Be Strong, other than clinical impressions. So I think a lot of people have perpetuated some of these urban legends or

whatever you want to call them. If it works for you and it doesn't cause harm I don't see a problem with it. The cost, of course, that goes with it and making sure that you do no harm are the really important parts to that, is if you spend so much money on one supplement that you can't buy good dog food, then you've really upended your breeding program. You really need to start with a good nutritional basis and start with that.

So be sure that what you're feeding is appropriate for all stages. And my personal preferences are that they need to either be on a Royal Canin, Eukanuba, IAMS, a Purina or Hills diet, because those are the companies that have research behind their nutritional profiles on how successful they are for all stages.

**Laura Reeves:**

Excellent. Okay. Cheryl, speak to me on kelp. What do you know?

**Cheryl Bradbury:**

Again, I started back in the 80s where, I mean, it was like the wild West with all the claims that could be made on everything under the sun. And I mean, we had blue-green algae, we had raspberry stuff going and things. I've never seen or heard anything good or bad about kelp. So other than the fact that it's grown under the water and there may be some nutritional value to it, I just haven't seen a lot about it now. And I also don't believe I've ever seen a study or any research as well. So it might be relevant or it might be just one of those wild West-

**Laura Reeves:**

Wild West old wives tales, right?

**Cheryl Bradbury:**

... that still exists today. Now, like Dr. Greer said, Be Strong has been going through some changes, and Be Strong is now available in a powder under the Breeders' Edge brand. So it was a product that needed to be evaluated and adjusted, and we made it liver flavored instead of licorice flavored. We are working on a formulation for a liquid product, which is taking a little bit more time, because with a product that's so heavy in vitamins and minerals, keeping those in suspension so that we're getting the same amount with every serving is a difficult thing to do. And trying to make sure that it's a product and can be used in cats and dogs has been a challenge. So we may end up with two formulas at some point in time, but that's one of the things that we're working on.

But the powder is showing itself to be a very good product that breeders are liking. The palatability is great. It is supporting the building of blood in your bitches and in your stud dogs. And it can actually be used for other things, like puppies that need a little bit extra as they're growing.

**Laura Reeves:**

Interesting. Okay. Well ladies, thank you so very, very much. I really appreciate your time. I know that this will be useful to our breeders who are listening. So that is our goal, help people. The more you know, the better you do.

**Dr. Marty Greer:**

Thank you.

**Cheryl Bradbury:**

Thank you.

**Laura Reeves:**

Awesome. Thanks so much.

As always, if you have any questions or input, we'd love to hear from you. The show notes and links to resources on today's topic are available at [puredogtalk.com](http://puredogtalk.com). Drop us a note in the comments, or email to [laura@puredogtalk.com](mailto:laura@puredogtalk.com).

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