

The Importance of Physical Activity in Improving Your Pet's Overall Wellbeing

A Special Interview With Dr. Laurie McCauley

By Dr. Karen Shaw Becker

Dr. Karen Becker:

Hello and welcome to Happy Healthy Pets Week. I am so excited that I have my friend and colleague, fellow veterinarian and board certified rehabilitation specialist, Dr. Laurie McCauley with me. She was actually one of my instructors when I took the Canine Rehabilitation course. She was one of my teachers. She's, I believe, probably the most eminent rehab person in the U.S., if not potentially the world. But I'm so thankful that she has taken some time out of her incredibly busy schedule to join us today. Today we're talking about exercise and why it's so important. So Dr. McCauley, thank you so much for joining us, and welcome to this amazing Awareness Week.

Dr. Laurie McCauley:

Thank you for having me. This is amazing. I'm so happy to be here. My mission in life is to help as many pets in the world as possible, so this is right up my alley.

Dr. Karen Becker:

For the people that are unfamiliar with you, people that are in the sports world know exactly who you are and follow you and have worked your programs and follow your information for going on decades. But how did you decide you wanted to devote your life and career to rehabilitation? To the taking care of the physical body to the extent that you became a specialist in doing so? How did that come about?

Dr. Laurie McCauley:

So I did six years in general medicine, and actually I got bored as so many regular veterinarians do. It was like, "This is so amazing." And then, "It's one really good case a week." And then, "It's really one good case a month." And it's like, "Another dog with diarrhea and another vomiting cat and anal glands and spays and neuters." And it wasn't as fulfilling. And then I fell down the stairs at three o'clock in the morning putting my dogs out, and I went to my chiropractor. I hurt my back. He couldn't fix me. He sent me to an orthopedic guy who sent me to a PT (physical therapist). And I went, "Oh my God, this is amazing. So the whole idea is, you find the problem, you fix the pain, and then you strengthen it so it doesn't happen again? That's what I want to do for my patients."

And I thought, "I'll take a course." And there was no course. So I'm like, "Okay, I'll do whatever I can." And there was one person in the U.S. who had a PT on staff. I don't know if you ever saw Emergency Vets with Rob Taylor at Alameda East, 20 something years ago. And I went there. We did some research together. I spent time with PTs. I read every human PT book I could find, and I started working with dogs. And in 1998, I opened up the first rehab clinic. I designed the

first underwater treadmill for dogs. I saw what it was doing for race horses and humans, and it was just like a light bulb. And what I thought ... I had had a new son, he was six months old at the time. Now he's 26. And I thought, "Okay, this will be great. I'll do rehab three days a week, six hours a day." And within six months I was working 60 to 80 hours a week. Because it's amazing, right? There's so much we can do to help these dogs. It has been such a blessing.

Dr. Karen Becker:

Well, and then you also went on. Because there was no such thing as really small animal veterinary rehab. As you mentioned, equine for sure. People are going to drop \$250,000 in a racehorse. They're going to do what they can probably at that time using human PTs to help. But then, this has now become a specialty that you kind of helped create. What year was rehabilitation adopted in as a specialty?

Dr. Laurie McCauley:

So I started my first clinic in 1998, and we became a board certification group in 2010. And I got board certified in 2014. Had to go through, take the test and everything. And I just recently, within the last two months, got, because you only get board certified for 10 years. And then you either have to do a whole bunch of things, teaching and stuff, research, or take the test again. So I just got my re-certification. So I am boarded until 2034. Woo-hoo.

Dr. Karen Becker:

Woo-hoo. Congrats. You'll be boarded until you're done. But that's beautiful. That's beautiful. And it has to be so empowering for you to watch, to have a hand in creating a health and wellness segment of veterinary medicine that didn't previously exist. It has to be incredibly gratifying, especially the number of animals that without the services that not just you created, but now you're training veterinarians worldwide ... The number of animals that are now being saved because no pill or drug is going to cause a paralyzed dog to suddenly stand up and walk. And it has to be very soul-filling for you to look back and also look forward as to what you've helped accomplish. But also the place that this particular wellness vantage point is going towards within our profession. It has to be very inspiring for you.

Dr. Laurie McCauley:

It is amazing. I've had interns from 17 different countries. In the beginning, they were staying at my house and coming to the clinic. I have taught tens of thousands of vets between all the different conferences. I taught the rehab certification course for 14 years. And it is so heartwarming, because now so many of the people that I taught like yourself have gone on to teach more. So it's like this ripple effect, and I'm so honored to be that little ripple that started. And now my interns have become board certified. And they're teaching, and they're writing, and they're doing research. And it truly has gone from my little 400-square-foot space to a mushroom, to be worldwide. And I've been able to lecture at the World Conference and help with the FEMA (Federal Emergency Management Agency) dogs and the police dogs, and it's just amazing.

Dr. Karen Becker:

Yeah, it is. And really nothing else takes its place. It literally was a hole. We had this gaping deficiency within the options that we know as veterinarians until this field was fleshed out, in part because of you. So we really appreciate your passion and your contribution to developing this particular field of veterinary medicine.

So this brings me to an interesting question. When I was writing “The Forever Dog” book, I found it really interesting. When we look at the oldest dogs in the world, the amount of exercise they're getting, Laurie, is pretty astronomical. Most of them were maybe not on farms, but they were outside. They are outside for much of the day. They're just walking. They're moving, I'm not going to say constantly, but they are active for at least half of the day.

And then we compare that to, let's just take well-loved dogs in the U.S., but potentially around the world. Well-loved animals in safe, stable environments oftentimes are owned by people that are incredibly busy. Potentially too busy to give them the heart-thumping, aerobic exercise that they need. And I have been really a little overwhelmed at the number, not just the obesity crisis with dogs and cats worldwide, but even animals that are maintaining their body weight. They aren't getting the, I'm going to call it movement therapy. They're not moving enough to maintain their muscle mass. But then beyond movement therapy, there's actually exercise. So can you start this conversation where you're going to educate all of us a little bit about how much exercise do our dogs need when it comes to just basic health, but then disease prevention? Because those are two different things. Just maintaining body weight and maintaining muscle and tendon ligament resiliency is one thing. But the bare basics are very different than optimal movement. So can you walk us through where your thoughts are on what we should be doing and probably aren't?

Dr. Laurie McCauley:

Absolutely. Absolutely. I would love to. So in humans, there's a ton of research in mice, in humans. And I'll go into just a little bit of research. In mice, they show that mice that walk on a wheel, because mice actually don't run. They walk. They live significantly longer. And their brains, they make more neurons, they're smarter. There's so many more health benefits to the ones that walk, and that is totally different overlap with the mice are constantly learning new things. So when you're learning new things, you have different processes that go on in the body, different processes that go on in the brain. You actually have more neurons being, let me try that again... The ones that go on the wheel get more neurons in the hippocampus, the part of the brain that is for learning and behavior. The ones that learn new things, those neurons live longer.

So by doing both, we can help the brain that way. And then with the body, I would say the minimum for a human because that's where the research is, five, at least five times a week, walking for at least 25 minutes. And realize that's working endurance. And there's different type of muscle fibers we have. So that walking is going to help with the heart, with the metabolism, and that stuff. But it's not injury prevention. Injury prevention, the walking, "I'm going to go for a walk. I'm going to go for a run. I'm going to chase the ball. I'm going to go for a swim." That really works type one muscle fibers, which are great, but it doesn't really work type two muscle fibers.

So think about humans. You have the humans that are runners, and they're thin and lean, and they really have strong type one muscle fibers. The type two muscle fibers are your gym rats. They have big muscles, they're super strong. They may fatigue easily, but those are the guys that prevent shoulder injuries, hip injuries, knee injuries, back injuries, all of that. And we really need to work both.

Dr. Karen Becker:

So the same principle applies for humans. So in humans, everyone pretty much knows, yeah, you need to do some cardio, some aerobic exercise. But nothing takes the place of strength training. You have to do strength and aerobic exercise. Same is true for, I can venture to say, cats as well. Eh?

Dr. Laurie McCauley:

Yeah, absolutely. No, getting the cat to do some strength exercises may be kind of fun. I've had clients that had cats who, their cat would run to the door if the doorbell ring. So I would have them five times a day, put a treat by the door, ring the doorbell. Cat comes running, "Hey, look, there's a treat." Right? A little bit of calories, but they come running. You have to be a little more creative with cats, but absolutely. And that's that, and then tricks, if you can teach cats to do tricks. And I know people who teach. We had our cats that sit up and beg and do all kinds of fun stuff. And that can help with core. You can pick them up and put them down gently, and that gets them to step back. So there are things we can do.

Dr. Karen Becker:

I just figured out that when my kitty's on her back and she's being all adorable, usually some catnip involved, and she's being all adorable on her back, if I dangle a feather, she'll crunch. So I can get, with a feather, I can get her to do some crunches. So I'm working on passively stimulating her to work her core with feather crunches. But you do have to kind of think of those things because kitties don't do those on their own.

Dr. Laurie McCauley:

And we have to be balanced. So for everything that you're doing coming forward, you want to have her doing something back. So then, taking that feather and having her come up. So we work on the back muscles so we're not just creating strength in the abdominal muscles. We're creating the back so that we're balanced, and we're not going to have a back injury or back pain.

Dr. Karen Becker:

Okay, see? So important. So for all of our listeners, readers, that say, "You know what, I live on an acre and my dog has a dog door with this fenced-in beautiful backyard. He can walk to his heart's content." Or that usually, at least for my clients, that is what they consider exercise. Or people get home, they're exhausted, they've worked 10 hours, and they take their dog for a walk around the block. That's an okay start, no problem. But then where do we go from that kind of mild, short amount of cardio to actually working on building strength? That's not something that we intuitively know what to do for our own bodies, and certainly not anything that comes intuitive for us as pet parents.

Dr. Laurie McCauley:

So can I introduce you to Sid?

Dr. Karen Becker:

Please.

Dr. Laurie McCauley:

Sid came to me, and I'm going to give him a little bit of food. Hey buddy, healthy food. Sid came to me when he was 11 months old. He's like, "Oh yeah, you got food. I'm all over it." And if you can see him, he has straight shoulders. He has straight knees and a long back. And when we look at it, the most common injury we see in active dogs is shoulder injuries. The most common orthopedic surgery we see is cruciate injuries. And who's most likely to get those cruciate injuries? Dogs with straight knees. Who's most likely to have back injuries? Dogs with long backs.

So I said, I need to put together an exercise program for him. Because I don't ever, I love this guy. He is my Amazing Hearts dog. I don't ever want him to have to go through an injury or surgery. I don't want him to have [inaudible 00:13:48] injuries. So I put together an exercise program for him to work on stabilizing his muscles. And if your listeners want to go to optimumpetvitality.com, they can actually purchase the course. "Core and More for Pet Parents," right? Functional exercises for your dog that work on all the stabilizers.

Dr. Karen Becker:

Nice.

Dr. Laurie McCauley:

So an exercise course that goes through everything they need to know to prevent grief. And it's 24 exercises. It's not like a hundred thousand. It's doable, which is super, super important. And this guy is rock solid. He is one of very few dogs in the world, and this course is not going to allow your dog to do this. But I have taken him to the point where he can actually get on a round ball and walk it forward, backwards, sideways in both directions, spin, twirl.

Dr. Karen Becker:

Amazing.

Dr. Laurie McCauley:

He can walk, follow it around cones. He can walk it in the yard where it's bumpy and hilly. And he's just amazing.

Dr. Karen Becker:

Amazing.

Dr. Laurie McCauley:

He'll never get injured. I'm confident.

Dr. Karen Becker:

So I can only imagine that you as kind of this world-class expert, I don't want to say you might feel pressured to have a dog that literally is this caliber of an athlete, but also so well-conditioned that he really is, I don't want to say above the level of injury. But you have intentionally created this. Because this is all you've seen in practice is-

Dr. Laurie McCauley:

Oh, my God, yes.

Dr. Karen Becker:

... Potentially preventable injuries that, you are not going to have that in your own home because you know better. And thank you for, basically what you have made are personal training courses for people who don't know. Because none of us would intuitively know what we need to be doing. You provided one-on-one consultation via video course that we can all condition our animals to avoid injury and strengthen their entire bodies. So, you want to do a little demo with Sid?

Dr. Laurie McCauley:

I do. I do. Because there's simple things you can do that anybody can do. And this is like starter exercises. Come here, buddy. Come on up. And he's like the best demo dog in the world. You can have a cookie. Pay it forward. So things like coming and starting with a three-legged stand. So you can start him if you have a weak, a geriatric dog or a puppy. Just standing and picking up one leg, and just holding it, and making him control his balance on the other three legs. Now I've just made it harder, because I have him on a movable or at least unstable surface. We would pick up this leg. And notice I'm not grabbing it. If I grab it, I'm helping him. So it's very light touch and he has to hold it. So that's one exercise. And you just go around.

And your dog may be able to hold it for five seconds. He may be able to hold it for 30 seconds. And when they can get to 30 seconds, then you go to a different exercise, right? Five are up to 30 seconds, we can move on and make it harder. Another one that I start with my geriatric dogs, one of the basic ones, this is what we call rhythmic stabilization. Where you just stand them and you push them.

Stay up, thank you. Stay. Yes.

And he's pushing against me.

Stand up. Here's your cookie. Thank you. Stay.

And I'm pulling him into me. I can push him up.

Come on. Up.

I can pull him back.

Stay.

Pushing really, really hard.

Dr. Karen Becker:

And so you're basically having him, he's leaning into you. And he's working on stabilizing himself as you're kind of gently shoving him forward, backward, left and right.

Dr. Laurie McCauley:

Well, and think about this: There's no added compression to his joints. So a dog with arthritis can do it. Well, we call puppy to do it.

Dr. Karen Becker:

Yeah. Beautiful.

Dr. Laurie McCauley:

When we're pushing him, there is no sheer force in his joints. So a dog who has an injury and the pain is gone, can do it, and there's no chance of injury to the joint. So it's extremely safe and extremely beneficial. And by increasing time and increasing reps, it can be quite a workout.

Dr. Karen Becker:

That's awesome.

Dr. Laurie McCauley:

Good job, buddy.

Dr. Karen Becker:

Nice job. Nice job. That's wonderful. And so if you have an animal, and that's actually probably, I was thinking about all the animals that maybe are either rescued and they're not used to moving. Animals that have never had an exercise protocol, or maybe moms and dads listening are like, "Oh goodness, I have an out of shape overweight animal. I don't know where to start." That's where you can start.

Dr. Laurie McCauley:

Absolutely. Absolutely.

Dr. Karen Becker:

Yeah. When you see people that maybe begin to recognize, "Oh, my goodness. My dog has had no aerobic exercise and has not done any strength or stability training, I'm behind and I'm nervous." What are some of the bigger mistakes you see with people maybe recognizing, "Oh my goodness. I realize this is a massive contributing factor to longevity and injury prevention. I don't want my dog to have early arthritis. I haven't done any of these things." People can sometimes do it wrong. What do you see as some of the biggest mistakes people are making, Laurie?

Dr. Laurie McCauley:

The biggest mistake is "weekend warrior syndrome," right? People who work all week long, do nothing with their dog. Their dog is either just sitting in the house or in a cage, and then they come home and they just feed them. They go to bed and then on the weekend they're like, "Let's go for a 10-mile run." Or "Let's do all the exercises today and tomorrow" instead of building up. So it takes three to four weeks to have physiologic change in the muscles, and it takes three to four months of doing exercises to have physiologic change in the tendons and ligaments. What that should tell you is that tendons and ligaments, which is a lot of the time where we have injuries, can atrophy. Which means they're more likely to get injured. But they can also hypertrophy or get bigger and stronger. And if we do these exercises and slowly build them up, we can significantly decrease the chance of injury.

So, no weekend warrior syndrome. Do a little bit every day. And it can be something like, you have a 10-year-old dog and you're going to feed him breakfast. Have him back up 10 steps before you put his bowl down. Or have him, if you have a seven-year-old dog, so maybe one a little more active, we're going to go and back around the house. And then maybe walk sideways a little bit and then maybe do a sit to stand. Or if you're going to walk your dog, when you're walking him, every time you get to a street, before you cross the street, he goes into a sit. Then he does a stand. And then we walk to the other side, and he does a sit. And then he does a stand. And if you're like, "Well, I'm only going to walk my dog." Or "I'm in the country." Okay. Every fifth tree, right? Or every driveway. So you can make up your own. Start slow and build up so that they're not going to get injured. And if your dog is really panting, you're doing too much.

Dr. Karen Becker:

Yeah. Okay.

Dr. Laurie McCauley:

There's certain signs. If it's, like I was in Louisiana. I was at the vet school teaching for two weeks last week. I would go outside for lunch, and it was like 98 [degrees], feels like 110. Don't do it in the middle of the day. Do it five o'clock in the morning or 10 o'clock at night. As soon as you get up, or just before you go to bed. So that if you have to go outside, it's at least as cool as it can be. And know the signs. I don't know if you know this, but when a dog pants and is moving their head, it's because... A lot of times you'll see their tongue is flat, so they have more evaporation space. Because dogs don't sweat except on the pads of their feet. So to get rid of heat, their tongue will flatten out, so that there's more space to evaporate to get rid of heat. And then they'll move their head around so that they're not breathing in the hot air that they just expelled.

Dr. Karen Becker:

So that's a really good tip. I mean for everyone. It's like, if you're seeing those subtle cues, we need to be aware that our animals could be reaching a threshold in terms of that particular training session. So slow and steady wins the race. And consistency, Laurie. Consistency, obviously. Yeah. Okay. Excellent tips.

So if people listening think, "Okay, I can do this." We're talking about using maybe a portion of their food then, because we don't... I mean, certainly, if your dog will work for veggies, yay. If you can take one mini carrot and make 10 little sliced rings, yay. But otherwise, just like pea-sized morsels of even their food. Like, I think Sid was working for either healthy treats or food. He does as well.

Dr. Laurie McCauley:

His dinner, right? So it's freeze-dried raw food. So it's a really good, well-balanced diet. And if you say, "You know what? Hey, but my dog is on raw. And it's wet and it's meaty." Great. Put it into ice cube trays, stick a tongue depressor in it, and now you have something that they can lick and go for. Or if your dog can eat yogurt or peanut butter, I'll have people take a mug and put a little bit of peanut butter or yogurt or pumpkin paste on the inside of a mug and freeze it so that they can lick around and get it.

Or if there's a person, and they can't bend down, and they have a little dog. I'll have them take a wooden spoon. And they can put a yummy treat ... That's again, peanut butter, yogurt, their food if it's wet food. On that with wax paper underneath so it doesn't spill. Freeze it, and then the dog can lick at it and chew at it, and you can what I call drive the dog. So you can be moving the dog. "We're going to go sideways. We're going to go forward. We're going to go backwards. We're going to do spin. We're going to do twirl. We can do all these things." And the dog's like, "Yeah." And they're getting their-

Dr. Karen Becker:

That's brilliant. Yeah, that's brilliant. Wooden spoon. That's brilliant. I never thought about that, but that is amazing.

Would you say, Laurie, for animals that happen to not be food-motivated, any tips or tricks? Or my clients will say to me, "My dog just doesn't want to move." Any tips or tricks for animals that just are unmotivated to do anything?

Dr. Laurie McCauley:

Praise is so very, very important. One of the things I do with my students is I say, "Okay, if I push you, and you take a step. And I push you, and you take a step. And I go to push you again, you're going to go, "What the heck?" Right? You're going to get pissed. But if I push you, and you take a step, and I go, "Karen, thank you so much. That was so important to me. I so very much appreciate it." And I push you, and you take a step, and I go, "Yay." All I have to do is step towards you to take a step and you're going to step. And it's the same thing with the dogs. I have no problem making a fool of myself if it makes my dog happy. So it can be as something as a dog sits. And you're like, "Yay. I'm so proud of you." And the dog's like, "What did I do?"

Dr. Karen Becker:

"What did I do?" Yeah.

Dr. Laurie McCauley:

"I like that." Right?

And because I do rehab, it may not just be food. I have taught dogs to walk again using their favorites. So it could be caramelized popcorn. Not balanced, not appropriate. And it got the dog walking again. We had one dachshund, that we would take a styrofoam cup cut down. But his absolute, oh my god, favorite thing that his owner shared with us was coffee with a lot of milk in it. And he would get to get two or three licks and then we would move it three feet and he would be like, "Oh, okay, I'll walk." Right? So it can be crazy things. It can be, I had one client who, their dog was like, "Yeah, food means nothing to me." But loved agility, and we were just learning. So his favorite thing was to go into a tunnel. So we took some of the cavalletti jacks, like little cavalletti poles. And we would have him do an exercise and then go tunnel. And he would go through it. And he'd be so excited, and be willing to do the next exercise so we could go tunnel again.

Dr. Karen Becker:

I was just going to say, so the key is to find something that you know your dog is going to love, whether it's a toy or even – We all eat trash food now and then. This is a good time to break out your dog's favorite trash food in teeny tiny portions.

Dr. Laurie McCauley:

Teeny tiny.

Dr. Karen Becker:

This is what I'm hearing you're saying. Yeah. Okay. And toys. A lot of dogs, that's their main thing is, golden retrievers, they just want their toy.

Dr. Laurie McCauley:

Yes. And I'm one of those crazy people. I have some of the toys that are the toys that the dog will chew on for three years because it's so well-made. And I go to Goodwill where they're like 50 cents or a dollar apiece. And as long as they don't have button eyes, that they have sewn-on eyes. No moving, no metal or anything like that. I bring them home. And the dogs know when they get that, they can rip it to pieces and it looks like it's snowed. And they just are so, so happy. And they know those toys. Because it's a different feel of the material, because it's really thin. So we can use that as a, "You want this toy? You're going to get this toy." Right?

Dr. Karen Becker:

Yeah, that's good.

Dr. Laurie McCauley:

Makes them happy.

Dr. Karen Becker:

Yeah, that is, and that's a really good idea. We almost would call them disposable toys. If you get old, used stuffed animals from Goodwill, that's amazing for, I think about my pit bulls, that's like gold. Way above food, being able to shred something with stuffing in the middle. Hands-down bliss. Yes, bliss. That's awesome.

So when we think about injury avoidance, so many people are going to say, "I've already been through one cruciate. I already missed that boat." But that cruciate weakness that resulted in a tear and surgery, all of the ligaments in the body are that weak. The knees just maybe happen to be ergonomically the body's weakest link. But can we talk a little bit about how we can go about, for animals that have not been injured, how do we avoid it? And for animals that may have already sustained an injury, what can we do to minimize the chances of it happening again?

Dr. Laurie McCauley:

So let me tell you that there is a paper out from the — this is human again — Canadian Physicians' ... I don't remember, College of something or another. Basically stating that exercise is a highly underutilized arthritis pain management tool.

So exercise in itself, can one, decrease the arthritis or the progression of the arthritis, as well as decrease the pain. And again, it's that stabilization-type exercises that we do that can help those

joints. And realize that when we talk about, "Oh, my dog tore a cruciate," 30% to 50% of those dogs that tear one cruciate are likely without rehab or exercise to tear the second one within two years. So exercise is so super important. As well as supplements, as well as good diet. It all plays into it.

And range of motion. So I have to throw that in for a second. The number one sequela, the number one problem I see post-cruciate injury is dogs lose the ability to bend their hock or their tarsus. And then that makes them shift all of their weight to the other side, which then we know causes more inflammation. Which is what's going to increase the chance of tearing the other side. So doing range of motion on the surgery side or the injury side, even if they don't have surgery, can help decrease the chance of that other one tearing. And again, doing the exercises so we can strengthen those. We have up to two years that they can tear the other one. And it takes three to four months to strengthen the tendons and ligaments. We have time to do that, even if we're just starting at the very beginning.

Dr. Karen Becker:

That's really good hope for everyone that is either maybe had a CCL or ACL strain. Or that there's maybe, I think before, unless you're hit by a bus, most of the time I believe the science has established that it's a microtrauma process that ultimately creates a rupture. And as animals are going through this process of having their tendons and ligaments become weaker and weaker. And the inflammation's there, there's still intervention positive steps we can take to prevent the body from fully rupturing. And these exercises contribute powerfully to that happening. Is that correct?

Dr. Laurie McCauley:

Absolutely. Can I add something? I just realized it. I have it written down, so I have to remember it. If anybody's interested in, I have a free ebook that they can get, and I don't know if you-

Dr. Karen Becker:

Nice.

Dr. Laurie McCauley:

Okay.

Dr. Karen Becker:

Please, yes.

Dr. Laurie McCauley:

If you text the word "eBook," so just E-B-O-O-K, to 8-6-6-9-4-9-0-0-6-8, it'll say, "Hey, give me your email address." And we will send you to your email, "The Top Five Exercises for Geriatric Dogs."

Dr. Karen Becker:

Nice.

Dr. Laurie McCauley:

It's a great ebook that anybody can use. And even if you don't have a geriatric dog, those exercises, again, are safe for a 12-week-old puppy on up.

Dr. Karen Becker:

So good. Wonderful, Laurie. I appreciate you putting that together and also offering it free of charge. That's for people that are listening or reading and think, "I don't know where to start." Start there because it's free. You can look it over. You can go at a pace that your dog is comfortable with. It gives you time to digest the information and just practice one exercise at a time. That's wonderful.

So you mentioned supplements, Laurie. I have met many doctors, many rehab doctors that use some supplements, but not others. That think that maybe all the supplements are maybe overrated or people are over-supplementing. Me personally, what I have seen is, people use a ton of supplements and don't think about food. I'm a big believer in healthy food and the appropriate supplementation. I like those together. But I'm kind of pick and choose when it comes to the types of supplements for certain conditions. What are your thoughts on supplements?

Dr. Laurie McCauley:

I am a huge believer in supplements. Sid gets them. I have Ollie, my 13-and-a-half-year-old Mastiff mix. He's on supplements. And I don't recommend a supplement. So any of your chondro protectants, chondro cartilage protectants. Obviously we're protecting the cartilage. I usually recommend finding 3, 4, 5, really good ones and rotating. With the idea that if we have six different things in this one and six different things in this one, your body isn't going to need just these. They're going to get enough of these, but they may need some of these. So you do this for a bottle, that for a bottle, that for a bottle. I love standard processes, canine musculoskeletal support. I love ... Leilani Alvarez, one of my people that I taught who runs the rehab program at AMC has a great lecture on, if you take supplements that have glucosamine and chondroitin isolated. When she did a meta-analysis of all the different studies, those are the ones that had less of a tendency to have a large effect.

When you took the ones just that had the green-lipped mussels or the perna canaliculus, the other name for them. Those are the ones that had really good effects. So I have a tendency to pick the supplements that have that, rather than just the isolated glucosamine and chondroitin. My guys get collagen. I myself am on collagen. I do personally Great Lakes collagen, because it's got 20 different amino acids in it, including two of the three that help with muscles. MYOS for muscle. I contacted the company and said, "Listen, I'm a nerd. I admit it. I've read every research article you guys have put out. Prove it to me. If you send me enough free and I'll buy it after that. And it changes my, at the time, 12-year-old Mastiff and I can see a difference, I'll let people know about it." And sent me a 12-week supply and my dog, who could not do a sit up and beg, was able within 12 weeks to do sit up and beg and high five, which is changing center of gravity while he's doing a sit up and beg. And walk backwards 120 feet without having to sit down and get up on the round ball and walk it 40 feet around the house. I was like, "I'm in."

Dr. Karen Becker:

So for people that don't know what MYOS is, back up and just give a little ... Because all of these, the counter protective agents nourish and support the cartilage, the raw materials for

building blocks of cartilage. And then there are things that produce, help the body produce synovial fluid or joint fluid. But what is the mechanism of action for MYOS, for people that aren't familiar?

Dr. Laurie McCauley:

So MYOS has Fortetropin in it, which is a special process used from fertilized chicken eggs, specifically from the yolk. And it's really cool, because the research shows that unfertilized don't have the same effect. And they have this cold process where they do whatever they have to do, and it's a little crumble thing. And if you cook it, it's no good. So if you put hot water in your dog's food, you have to wait until it cools before you put the MYOS on. But it actually stops myostatin in the body, MYOS muscle statin stay. So as we get older, when we are injured, our body produces a chemical called myostatin, which stops the body's ability to make muscle. And by stopping the myostatin or significantly decreasing the myostatin, it allows our body to make muscle.

So there's studies in geriatric people, in athletes. There's studies in dogs post-cruciate injury. In, well, I mean we have the studies in the dogs that are athletes. They now have it in cats with renal failure, that they are putting on more weight. And with the cats, that actually is a direct correlation. The cats that are more muscled live longer than the cats that are really anorexic. So we're hoping that that's going to be a significant effect in longevity in the cats. It's just a really cool product.

Dr. Karen Becker:

Well, and I will just say as testimony, my father who is shrinking. He's 83, he's got sarcopenia. This is where you're atrophying, you're losing muscle mass by the day. I put him on the human MYOS several years ago, along with blood flow, BFR, blood flow restriction bands. And it's dramatic how you can stop, slow or reverse this terrible shrinking process. Likewise for animals. Maybe your animal has sustained an injury and they've got one leg that's smaller. You've got an imbalance of musculature. This is the perfect supplement, along with physical therapy, training and at-home exercises to help the body rebuild or reestablish some of that muscle tone. So I agree with you. So in essence, what I hear you saying is, there are things to support and nourish joints, and then there are supplements that can support and nourish muscles as well. And that potentially picking and choosing a blended protocol for specifically what your goals are is probably the best approach.

Dr. Laurie McCauley:

Yes, absolutely.

Just throw in here, Boswellia is amazing. So the Standard Process, Canine Musculoskeletal Support, one of the reasons I like it is it has Boswellia in it, which is a LOX-5 inhibitor. So it's totally safe that ... Let me back up. When a dog takes Rimadyl or Metacam or Previcox or any of that, that's a COX-2 or COX-1 inhibitor, which is an anti-inflammation, you can also hit the inflammatory process in another place. So you can't take Metacam and Rimadyl. That would throw you into kidney failure or liver failure. It'd be a really bad thing. But you can add Boswellia into that mix for a better effect. And the Standard Process product has it, which I really like. So that's always one that I put into my mix.

Dr. Karen Becker:

That's beautiful. And you just mentioned, because a lot of people recognize that pain is an inciting factor for people to get highly motivated to do something. And we certainly don't want our animals in pain, and that's where some of these (nonsteroidal anti-inflammatory drugs) NSAID drugs come in. However, they do have side effects. And potentially by adding Boswellia, you can decrease the amount of NSAID and still have inflammation and pain managed because you've added in some natural anti-inflammatories that help take the place of using these drugs.

However, Dr. McCauley, talk about how just supplying NSAIDs without supplying the raw materials for cartilage repair or any of these other supplements that actually help to nourish the problem, just blocking pain. What happens if we're under this kind of false premise that, "Oh, my gosh. My dog has been in pain. He took one of these magic anti-inflammatory drugs from my vet and thinks that he's all better." Can you speak to why there's a risk there?

Dr. Laurie McCauley:

Yeah, because even if you're decreasing the inflammation right now, a lot of times these guys, it's not the "right now" stuff. So there's a lot of people, or a lot of dogs, that are on anti-inflammatories that it's not really helping. They're just afraid to take them off. So you have the side effects of potential liver problems, kidney problems, all of that, without necessarily the benefit. So I always recommend trying to wean them off of those if possible. And give them the things to support the cartilage. Because if you're decreasing the inflammation, but you're still grinding the cartilage, all you're doing is grinding the cartilage, creating the inflammatory mediators, and then slowing the process down. But it's still progressing, and you're still getting more arthritis. Whereas if you're taking care of the root cause, strengthening and stabilizing and then giving the body the nutrients it needs to rebuild the cartilage, then you don't get the inflammation. And you don't need the drugs that are going to have the potential side effects.

Dr. Karen Becker:

Yeah. And so just two kind of follow up questions to that. Number one, what age? So one of the things that I was most shocked to learn, I don't know when I learned it, but maybe in the rehab course... I knew in vet school that cartilage really didn't have a crazy nerve supply. So you could wear down your cartilage and your animal's active and doing great, and all of a sudden they go from moving great to not moving well at all in a matter of three months. And you're like, "Oh, my gosh. What happened?" Well, now they have open nerves that it went from no pain to a lot of pain instantly. People say, "How did this happen so quickly?" Well, that cartilage was allowed to wear down to the point that now there isn't any. So what age do we preemptively or proactively start supporting cartilage, especially in let's say dogs over 25 pounds, bigger dogs? When do you start putting together a proactive supplement protocol to prevent degeneration from occurring?

Dr. Laurie McCauley:

It depends upon the dog's job, right? If my dog ... Like you said, little dogs, right? Little dogs are less likely, not always, to be super active. But if you have the dog who's out taking care of the sheep or running agility or doing herding or lower coursing or things like that, there's a total difference. So I never wait until I have clinical science. But if I have a dog and I see a lot ... Sports medicine, right? All of my athletes, I want them on an oral chondral protectant at six months of age. And I have very specific tests to see if they're even just getting a little bit of

inflammation in their knees. And if they do, and the oral chondral protectants are enough, we get them on Adaquan. Because that is something that's been shown to help rebuild the cartilage. For my patients that are not, they're just, I don't want to say "just"... They're house pets, and they don't have a job. And they're older.

It's about halfway through life, maybe a little bit less. So if you have a dog that you expect to live 12 years, a German shepherd or a golden, by five or six, they should be on something. And let's talk about, arthritis is so more prevalent than what we know, then what the client knows. Right now, we know that 20% of dogs at one year of age have arthritis. And by eight, 80% of dogs have arthritis. So I never want to wait until they have clinical signs saying that that cartilage is worn down, and now I have pain and all kinds of scar tissue around it, or an injury. I don't want to wait until that happens.

Dr. Karen Becker:

Yeah. And I stand by that theory a hundred percent, in that by the time your animal's showing you that they are broken, they have been in the process of breaking for a while. So I completely agree with you. And last but not least, unfortunately, much to my dismay, there is no pill for exercise. So you can give all the supplements in the world. I have clients that spend 250 bucks a month on supplements, but because their dog's bodies are not toned and resilient and strong, all of those expensive supplements aren't necessarily preventing injury or degeneration. So it goes back to, we have no choice but to move our dog's bodies to actually establish that, annoyingly.

Dr. Laurie McCauley:

Absolutely. Again, supplements help. Yet supplements are used to treat a problem. Exercise prevents the problem. Right? And again ... Go ahead.

Dr. Karen Becker:

Well, you've wholly motivated all of us. I'm going to get off this video, and I'm going to go walk the dog. It's hot in Arizona now. So I am one of those people that I have to exercise at five in the morning. But it does, and I have noticed in the last three months during this heatwave that I can't exercise Homer nearly as far or as long. But I can do stairs in the house. There are things we can do always. What we can't do is to use the excuse, "It's too hot." Or "My body can't move. Therefore, my dog won't move." We're going to have to get creative when it comes to putting together a customized plan for our animals to help them achieve the physical activity that they need, even if it's hot. And even if our bodies can't. That's not really an excuse to not do it.

Dr. Laurie McCauley:

It's the other way. It actually goes the other way. I wish I had a dollar for every time I had a client who said to me, "Laurie, it's amazing. I started walking my dogs in the morning, and my hip doesn't hurt anymore. My knee doesn't hurt anymore." Because now they are actually helping themselves as well as, right? So the dog may not be able to go very far and the person may not be able to go very far, but then they exercise together and they both get better. It's just, it really, truly is a benefit to both the client and the patient. And it significantly increases the bond. Because now the dog's like, "Are we going to go? Is it time to go? Right?" Instead of just like, "Oh, I'm laying on the couch. Oh, mom's doing that. Dad's doing that." "Hey, hey, look. There's a

ball over there. Can we play ball? Hey, can I get on the BOSU, and do sit up and beg for you?" Truly is so many benefits.

Dr. Karen Becker:

It's so good. Laurie, if people wanted to learn more about what you do and where you're at and what you can offer, where would they go to find you?

Dr. Laurie McCauley:

So my website is OptimumPetVitality.com. And they can sign in and get our learning goes. If they go to the website on top, it says, "Learn and Go." We've got almost a hundred different videos that they can go through and see which ones they like. There's a whole bunch of them on exercise. They can follow us. And again, I have to read this, because I am not the person who stays on top of this stuff. They can follow us on Facebook, at OptimumPetVitality.com, on Instagram at [Optimum.Pet.Vitality](https://www.instagram.com/Optimum.Pet.Vitality). They can subscribe to us on YouTube, [Optimum Pet Vitality](https://www.youtube.com/OptimumPetVitality). We have lots of great videos on all of our posts, all of our social media platforms.

I am a huge advocate of my profession. I've been doing this for a very long time. I graduated vet school in 1992 before most of the students that I'm teaching now, were even born. And we are the fourth-highest suicide rate profession. So one of the things we do is, every week we try to put out words of wisdom and encouragement. So that you open up your Facebook or your Instagram and you see something that just makes you smile or realize how lucky we have it living in a place where we have a roof over our heads and a pet by our side. Someone that loves us no matter what's going on in the world, and just try to make everyone smile.

Dr. Karen Becker:

Yeah, well, you do that naturally. You're just that person. But you also have this beautiful heart to teach everyone around you, pet parents, other veterinarians, colleagues, researchers. I appreciate your commitment, not just to make people smile, but to give them the tools and the resources they need to make better exercise, training, wellness, strengthening decisions. Because you provided that information for all of us. So I appreciate you also taking time today to teach our listeners and followers about what they can do to help either begin a wellness exercise program, training and strengthening program for their animals, or to prevent injury from occurring. I really appreciate your wisdom.

Dr. Laurie McCauley:

Thank you. It's awesome to be here. Thanks for having me, Karen.