

The Secret of the Oldest Dogs in the World

It took an unfortunate fall down a flight of stairs at 3:00 am while letting her dogs out for this board-certified rehabilitation specialist expert to realize the importance of exercise for both dogs and cats. Find out more about the two types of physical exercise your pet needs for a healthy life.

Analysis by Dr. Karen Shaw Becker

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STORY AT-A-GLANCE

- Today is day four of bark & whiskers Creating Healthy, Happy Pets Week 2023, and our guest is veterinarian Dr. Laurie McCauley, a pioneer in the field of veterinary rehabilitation
- Dr. Laurie started out her career in a general veterinary practice, but within a few years, like so many of us, she felt the tug to add more tools to her toolbox, and was drawn to the field of rehabilitation
- Dr. Laurie opened the first-ever veterinary rehabilitation clinic in 1998 and designed the first underwater treadmill for dogs; the specialty she helped create, canine rehabilitation, became board certified 12 years later in 2010
- Today, Dr. Laurie operates a mobile canine rehab clinic and an online teaching platform, Optimum Pet Vitality

Welcome to day four of bark & whiskers Creating Healthy, Happy Pets Week 2023! This week I'm focusing on the many different aspects of pets' physical, mental, and emotional well-being, and I'll be interviewing a wide range of experts in nutrition, behavior, enrichment, exercise, and physical rehabilitation.

My guest today is Dr. Laurie McCauley, a veterinary rehabilitation specialist who opened the first veterinary rehabilitation clinic in 1998 and designed the first underwater treadmill for dogs. During her 14 years as a faculty member at the Canine Rehabilitation Institute, Dr. Laurie taught thousands of veterinarians, physical therapists, and veterinary technicians the art of canine rehabilitation.

Today, she owns Red Tail Rehab, a mobile dog rehab practice in North Carolina, and online platform Optimum Pet Vitality, where she teaches professionals and pet parents different ways to help pets achieve optimum health.

Below are some of the highlights of our discussion, but I encourage you to watch the full interview above for much more detail and information.

A Much-Needed Veterinary Specialty is Born

I'm very excited to welcome Dr. Laurie to Creating Healthy, Happy Pets Week. She's a friend, colleague, fellow veterinarian, board-certified rehabilitation specialist, and she was also one of my instructors when I took the canine rehabilitation course. Today we'll be talking about exercise and why it's so important for dogs.

Dr. Laurie began looking to expand her veterinary toolbox when she realized after six years in practice that general vet medicine no longer provided the challenge it once had. Around the same time, she had the misfortune of falling down a flight of stairs at 3:00 a.m. while letting her dogs out, hurting her back.

"I went to my chiropractor," Dr. Laurie explains. "He couldn't fix me. He sent me to an orthopedic guy who sent me to a PT (physical therapist). And I thought, 'This is amazing! So, the whole idea is, you find the problem, you fix the pain, and then you strengthen the area, so it doesn't happen again?' I knew that's what I wanted to do for my patients."

Dr. Laurie wanted to take a course, but none existed at the time. So, she searched and found the one vet clinic in the U.S. with a physical therapist on staff. She did some research with the owner of the practice and spent time with the PT.

*"I read every human PT book I could find, and I started working with dogs," Dr. Laurie explains. "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 racehorses and humans, and it was just like a light bulb. My son, who's 26, was six months old at the time. I thought I'd be able to do rehab three days a week, six hours a day, and have time to care for my son. 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."*

Canine rehabilitation became a board-certified specialty in 2010, and Dr. Laurie was a huge influence in creating, from scratch, this health and wellness segment of veterinary medicine. Rehab has played a role in saving countless animal lives.

"It's really amazing," says Dr. Laurie. "I've had interns from 17 different countries. In the beginning, they were staying at my house and coming to the clinic. I've taught tens of thousands of veterinarians 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 it all. My interns have become board certified. They're teaching, and writing, and doing research. It truly has mushroomed from my little 400-square-foot space to a worldwide phenomenon. I've been able to lecture at the World Conference and help with FEMA dogs and police dogs, and it's just amazing."

The Importance of Exercise

As I mentioned earlier, today's topic is focused on the crucial importance of exercise in the life of dogs. During the writing of **Forever Dog** with my co-author, Rodney Habib, we found that the oldest dogs in the world get an extraordinary amount of exercise. Many are outside much of the day, moving around.

In contrast, the majority of well-loved dogs in the U.S. and other countries today exist in safe, stable environments, and often their humans are very busy — too busy to provide them with the heart-thumping aerobic exercise they need. It's not just that we have an overweight/obesity problem among companion animals, it's that even pets at a good body weight aren't moving around enough to maintain muscle mass.

I asked Dr. Laurie to talk about how much exercise dogs need for basic health, and also disease prevention.

"In mice, research shows that when they walk on a wheel (mice don't actually run, they walk), they live significantly longer," she explains. "And their brains make more neurons, so they're smarter. Humans who walk at least five times a week, for 25 minutes at a time, build working endurance, which helps the heart, metabolism, and that stuff. But it's not injury prevention. Walking and other similar activities are great, but they don't really work type two muscle fibers. You have humans who are runners, they're thin and lean, and they have strong type one muscle fibers. The type two muscle fibers are seen in 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. We really need to work both."

All that to say, dogs (and cats) require both types of exercise — the aerobic kind and the muscle strengthening kind. It's not enough to put in a dog door and assume whenever your dog goes through it, he's getting all the exercise he needs roaming your backyard. It's also not enough to walk your dog around the block at the end of the day.

The question is, how do we go from that kind of mild, short cardio activity to working on building strength? That's not something humans intuitively know how to do for our own bodies, much less for our pets.

Dr. Laurie's dog, Syd, is with her on camera, and she points out his straight shoulders, straight knees, and long back.

*"The most common injuries we see in active dogs are shoulder injuries," she says. "And the most common orthopedic injuries we see involve the cranial cruciate ligament (CCL). 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. I realized I needed to put together an exercise program for Syd, because I don't ever want him to get injured or require surgery."*

*So, I put together a program to help stabilize his muscles. Anyone watching or reading here today who is interested can go to **Optimum Pet Vitality** and purchase my Core and More: Functional Exercises for Your Dog a course for Pet Parents that demonstrates how to work on all the stabilizer muscles. The course is just 24 exercises. It's doable, which is so important."*

I asked Dr. Laurie what types of mistakes pet parents make in exercising their furry companions.

"The biggest mistake is 'weekend warrior syndrome'," she replies. "People who work all week long and do nothing with their dog, who is either just sitting in the house or in a crate. They get home, they feed the dog, and they go to bed. The weekend comes and they're like, 'Let's go for a 10-mile run.' It takes three to four weeks to have physiologic change in the muscles, and it takes three to four months of 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 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."

During the summer months when it's very warm outside, exercise your dog early in the morning or before bed. And know the signs of overheating. If a dog is panting and moving his head, and his tongue is flat, it's because he's trying to open more evaporative space to cool his body down."

Tips for Avoiding or Managing Injury

I asked Dr. Laurie about both preventing a first injury in pets, and also minimizing subsequent damage in previously injured animals.

"I read a research paper recently that stated that exercise is a highly underutilized arthritis pain management tool," she says. "So, exercise in itself can decrease the arthritis or the progression of the arthritis, as well as decrease the pain. And again, it's stabilization-type exercises that can help those joints. About 30% to 50% of dogs who tear one cruciate are likely, without rehab or exercise, to tear the other one within two years. Exercise is so super important, along with supplements, and a good diet.

*And **range of motion**. The number one problem I see post-cruciate injury is that dogs lose the ability to bend their hock or their tarsus. That causes them to shift all their weight to the other side, which causes more inflammation, which increases the chance of tearing the other side. 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. 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. Laurie is offering a free eBook, "The Top Five Exercises for Geriatric Dogs." All you need to do is text the word EBOOK to 866-949-0068. You'll be asked for your email address, and the book will be sent to you.

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

The Importance of Supplements

Next, I asked Dr. Laurie what kinds of supplements she recommends.

*"I'm a huge believer in supplements," she replies. "Syd gets them. Ollie, my 13-and-a-half-year-old Mastiff mix is on supplements. I don't recommend specific brands. Chondro "cartilage" protectants are important. I usually recommend finding a few really good ones and rotating them. Research shows that supplements that also include green-lipped mussels have good effects, better than supplements containing just isolated glucosamine and chondroitin. My guys also get collagen. Also, **Standard Process Canine Musculoskeletal Support** is amazing. It has Boswellia in it, which is a cox five inhibitor."*

Adding Boswellia can potentially allow you to decrease the amount of NSAIDs your dog needs while still managing inflammation and pain. Giving NSAIDs without supplying the raw materials of cartilage repair or other nourishing supplements can be problematic.

"There are many dogs on anti-inflammatories that aren't really helping," Dr. Laurie explains. "And you have the potential side effects of liver problems, kidney problems, all of that, without necessarily the benefit. I always recommend trying to wean dogs off the NSAIDs if possible and give them 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 the damage is 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."

As for the right age to start supplements, Dr. Laurie says it depends on the dog's job.

"If you have a small dog who isn't very active, it's one thing," she explains. "But if you have a dog who's out taking care of the sheep or running agility or doing herding or lure coursing or things like that, it's very different. All of my athletes, I want them on an oral chondral protectant at six months of age. And I do very specific tests to see if they're getting even just a little bit of inflammation in their knees. If they are, and the oral chondral protectants aren't enough, I get them on Adequan, which has been shown to help rebuild cartilage.

*For less active dogs, I recommend supplements at about halfway through their expected lifespan, maybe a little bit less. If you have a dog that will probably live around 12 years, a German Shepherd, or a Golden Retriever for example, by five or six, they should be on something. It's also important to realize that **arthritis** is much more prevalent than what we assume. About 20% of dogs at one year of age have arthritis. And by age eight, 80% have arthritis. So, I never want to wait until they have clinical signs that cartilage is worn down, and there's pain and all kinds of scar tissue around it, or an injury. I don't want to wait until that happens.*

Supplements help, but they are often used to treat an existing problem. Exercise prevents the problem."

The take-home message here is that we have to get creative when it comes to putting together a customized plan for our animals to help them get the physical activity they need, even when it's blazing hot like it is right now in Arizona, where I am.

If you'd like to learn more about Dr. Laurie or get in touch with her, you can visit her website at **Optimum Pet Vitality**. If you're interested, you can sign up there to view the "Learn and Go" videos that interest you. You can also check her out on **Facebook**, **Instagram**, and **YouTube**.
