## **DOG LONGEVITY SCIENCE IN 2025**

Okay, maybe a little premature. But not by much.

I just read another online article on how to help our pets live longer yesterday. And, surprise, found the same old stuff.

- Vaccinate your pet
- Spay or neuter your pet
- Feed them a good diet, whatever that means
- Take them to your vet once a year.

Just stop it. This was the advice veterinarians were giving 50 years ago, and I'm tired of it. Longevity science has come a VAST way just in the last decade, for both humans AND pets... and I want to make sure that you have ALL the latest info you need to help your pet live their longest and best life. I'm Dr. Kevin, and I run www.HelpingPetsLiveLonger.com. Let's get to work.

#### HERE'S THE BIGGEST HANGUP IN LONGEVITY SCIENCE.

The biggest problem in longevity science is that, as of 11/24, we have no simple blood or urine test that measures actual physiologic aging. Folks were all excited five years ago about telomere length, and there's currently a lot of buzz around the Horvath clock. But there was a lot of buzz about a Harvard invention called Time Signature back in 2018, which was supposed to be able to measure your biological age to within an hour and a half. That never got to market... and I suspect that many of the new tests won't either.

Without an accurate way to assess aging that everyone can agree upon, we are forced to extrapolate from test tubes, mice, and monkeys to our pets and ourselves... and just hope that it's accurate. What I am writing today is ABSOLUTELY based on current longevity science. When that science changes, so will my recommendations.



#### CAN VETERINARY CARE ACTUALLY HELP OUR PETS LIVE LONGER?

In a word, yes. But not the way veterinarians like me have been practicing for the last 50 years. Traditionally, that has meant "one size fits all" vaccine programs, spaying/neutering every pet, and treating sick pets instead of trying to actually prevent the causes of aging.

#### WHAT IS GREAT VETERINARY CARE IN 2025?

- **Precision medicine for our pets**, weighing their lifestyle and genetics against risk to develop a preventive health program tailored to ONE individual pet yours. Unneeded vaccines? Just don't.
- A healthy dialog around whether, and when, pets should be spayed or neutered. There are several studies suggesting that spaying or neutering pets can increase the risk of cancer or orthopedic disease. These studies may or may not be accurate, and here's why. Because, to date, no study has accounted for the weight gain that occurs in 90% of spayed/neutered pets. Obesity itself is known to increase both cancer and orthopedic risk, so it may not be the spay/neuter that is creating the increased risk so much as the weight gain. We need to find out.
- Reducing inflammation, or as it is commonly known, "inflamm-aging". How best to do this?
  - -In pets under 25 lbs, AGGRESSIVE DENTAL CARE. This means...
    - -anesthesia, radiographs of every tooth, and treatment/extraction of any diseased teeth.
    - -If your vet cannot take x-rays of every tooth in your pet's body... find another vet.
    - Untreated, periodontal disease will shorten your pet's life by up to 15%. That can be > 1 yr.
    - Non-anesthetic dentals? Worthless, and here's why. There's only one way to assess tooth health, and that is with x-rays. All the true problems with your pet's teeth live UNDER the gums, not on top of them. And without anesthesia, these problems may as well be on Mars

## -In ALL pets, PROPER DIAGNOSIS AND TREATMENT OF ALLERGIES.

- -Skin disease is the SINGLE most common reason pets are seen by a vet.
- -Allergies can be SOLVED in 65-75% of pets with proper immune therapy.
- -Itchy skin can be helped with fish oil supplements, OTC antihistamines like Zyrtec, and shampoos
- -Dietary allergies are a very common source of itching, vomiting, and diarrhea.
  - -Since most dietary allergies are due to meat, one easy way to help your pet with dietary allergies is to feed them a vegetarian diet.

#### -In pets over 40 lbs, EARLY DIAGNOSIS AND AGGRESSIVE CARE OF PAINFUL JOINTS

- -Large dogs don't have to worry about dental disease unless they crack a tooth.
- -But large dogs have to deal with painful joints and spines every day of their later life.
- -Our goal? Early diagnosis allows the use of supplements and lifestyle, rather than drugs, to keep our pets comfortable.
- -Which supplements are best for your pet's painful joints? Read on.

## A FEW DROPS OF BLOOD OR URINE CAN ADD YEARS TO YOUR PET'S LIFE.

And here's why. Blood and urine tests can give us an early warning system as our pets age, catching health issues while they are still small and, hopefully, more easily treated. Here are recommendations that make sense for your pet... and your wallet.

- -Sick pet? Whatever it takes in the way of diagnostic tests and imaging.
- -Cats and dogs under 20 lbs? Annual lab tests after age 7.
- -Dogs over 50 lbs? Annual lab tests after age 5
- -What are the right routine tests for your pet?
  - -Blood: Complete Blood Count, Chemistry Panel, and Free T4 Thyroid testing
  - -Urinalysis, including "sediment testing" to look at cells and urinary protein content.
- -Dogs over 40 lbs should have annual "Early Cancer Detection" blood tests annually after age 5.

# AND JUST WHAT THE HECK IS A "GOOD DIET", ANYWAY?

I'm going to let you in on a little secret. We veterinarians are not great nutritionists. Sure, we sell prescription diets but when it comes to actually determining what a balanced and complete diet looks like? Not so much. With that being said, here are some DIETARY FACTS for you, acquired over 38 years in a vet clinic.

WHAT'S THE SINGLE HEALTHIEST DIET? LESS FOOD. In every species studied to date, the SINGLE best way to increase lifespan is NOT drugs or supplements. It's to reduce body weight. One recent study showed that thin Yorkies lived almost 3 years longer than fat Yorkies, and that the average life extension across all breeds was almost 2 years.

THE SINGLE MOST COMMON DIETARY HEALTH RISK? That's easy. OBESITY, and here's why.

- -Every extra pound means an extra ton of stress on your pet's joints. Per day.
- -Obesity increases cancer risk.
- -Fat cells cause inflammation, which will shorten our pets' lives.

**THE HEALTHIEST INGREDIENTS FOR YOUR PET?** Home—cooked and fresh. In one study, dogs fed a home-cooked diet of good quality, fresh meats and veggies lived 32 months longer than dogs fed kibbled diets.

HOME COOKED DIETS should be balanced by a nutritionist. Check out www.Balancelt.com

WHAT'S AN EASY WAY TO CAUSE KIDNEY DISEASE AS OUR PETS AGE? High protein diets. Stop listening to diet manufacturers who tell you that your dog needs to be fed like a wild animal. Average age of a coyote at death in CO? 4 years, so just stop with the comparisons.

**CAN MY DOG EAT A VEGETARIAN OR VEGAN DIET?** Yes, without any problem. In fact, this can be a GREAT way to treat dietary allergies. Don't try this in cats.

IF YOU'RE FEEDING A GRAIN-FREE DIET... you better be supplementing with TAURINE to avoid heart disease.

**KIBBLES = INFLAMMATION.** To form kibbles, you need carbs. To keep them from spoiling, you need preservatives. Let's do better.

#### A SUPPLEMENT A DAY KEEPS THE DOCTOR AWAY. OR DOES IT?

The supplement industry is a FABULOUS example of hype and marketing, but is light on facts. I know. I sell supplements at www.HelpingPetsLiveLonger.com. Here's the difference — I only sell supplements backed by scientific studies, and I'm partial to supplements that I have personally seen help my patients in over 38 years as a veterinarian. I have some science for you today, so let's get to work.

## SPEAKING OF WORK, WHAT SUPPLEMENTS DON'T?

The two best examples of popular supplements that have been proven NOT to work are...

- -GLUCOSAMINE/CHONDROITIN sad but true. In multiple studies over the last 8 years, G/C supple ments like Cosequin and Dasuquin have been proven no more effective than a placebo in either dogs or humans. I sold Dasuquin for many years, so that make me sad and a little embarrassed.
- -RESVERATROL In the last 4 years, the supposed benefits of resveratrol for humans have been disproven. This also applies to Resvantage for dogs. There is zero health benefit to resveratrol. Oh, and about that drinking red wine because of resveratrol? Good luck. You'd have to consume close to ten (10) gallons a day of red wine to get to the 500 mg resveratrol dosage previously thought to work.

#### SUPPLEMENT SCIENCE SAYS...

#### CURCUMIN WORKS. Proven in over 4000 studies on PubMed.

- -Proven to reduce inflammation, fight cancer, reduce allergies, and fight infections.
- -Because it's not well absorbed, you need to use advanced curcumins like our LONGEVITY PLUS
- -Turmeric is NOT curcumin. In fact, turmeric only contains 3-4% of the active curcumin, so if you are taking turmeric you are not getting any curcumin into your system.

## UNDENATURED TYPE 2 COLLAGEN (UC-II) WORKS TO REDUCE JOINT INFLAMMATION

- -Proven in one study to reduce arthritic knee pain by over 40% in humans AND dogs
- -Proven in another study to offer pain relief equivalent to NSAIDs.
- -Safe, cheap, and proven more effective than glucosamine/chondroitin in head to head studies.

#### FISH OIL WORKS TO REDUCE JOINT INFLAMMATION, HELP THE SKIN, AND DECREASE BRAIN AGING.

-Make sure you get a good one to avoid ingesting heavy metals like lead and mercury.

### NMN WORKS TO INCREASE INTRACELLULAR NAD+ LEVELS.

- -As we age, our cellular NAD+ levels gradually drop. As they do, are cells have less energy.
- -Oral NMN has been proven very effective in raising intracellular NAD+ levels back to optimal.

**TAURINE WORKS** to help nourish the heart. This is especially important with GRAIN FREE diets.

**FISETIN WORKS** as a senolytic, to get rid of inactive old cells before they can poison their neighbors.

**ALPHA LIPOIC ACID WORKS** to increase the health of neurons and to reduce blood sugar.

**BERBERINE WORKS** to reduce blood sugar and support heart function.

... and this is just the tip of the iceberg. You'll learn much more soon.

#### PRESCRIPTION LONGEVITY DRUGS FOR YOUR PET

Longevity science has come a long way in the last decade, particularly in our understanding of the benefits of prescription drugs for life extension. Here's what you need to know about prescription longevity drugs for your pet.

#### **RAPAMYCIN**

- -Rapamycin is the most widely used and studied prescription longevity drug in the world.
- -Rapamycin is the drug being studied in the decade-long Dog Aging Project.
- -It was proven in the ITP studies to increase lifespan by up to 14%, and this benefit has been proven in every species studied to date. This benefit would add over a year to our pets' lives.
- -Rapamycin increases longevity through three mechanisms:
  - -improving heart health, proven in cats with the Trivium study and the Kaeberlein study in dogs.
  - -fighting cancer, including mammary cancer, lymphoma, and hemangiosarcoma
  - -fighting inflammation and reducing orthopedic pain.
- -Rapamycin is very safe. In out patients, only 2-4% of pets run into GI side effects, most commonly a transient loosening of the stool when first started on the drug and then resolves.
- -Because at higher doses rapamycin has been shown to increase blood sugar, we recommend that rapamycin not be used in uncontrolled diabetic patients
- -Rapamycin has recently been shown to...
  - -improve periodontal disease in older individuals
  - -reduce geriatric hearing loss

## **ACARBOSE**

- -Acarbose has also been proven to extend lifespan by 7-12% in the ITP studies, funded by the NIH
- -Acarbose works by altering the GI biome to reduce GI sugar absorption and thus blood sugar levels.
- -What is very interesting is that acarbose has a synergistic effect with rapamycin in MALES, extending lifespan by more than simple arithmetic would suggest, but NOT in females. Go figure.
- -Acarbose is also EXTREMELY safe for our pets, although it can cause excessive GI gas. (You've been warned.)
- -Because of its blood sugar benefits, acarbose may also benefit cancer patients.

#### **METFORMIN**

- -The longevity benefits of metformin are still being studied, but we use it for its proven benefit in dogs with heart disease. It has been shown in multiple studies to reduce the progression to heart failure.
- -Metformin can be hard on a dog's GI tract, so we recommend its use only in dogs over 40 lbs

### AND A NEW LONGEVITY DRUG ON THE BLOCK. MAYBE.

In the last year, there has been a great deal of publicity around an experimental drug for dog longevity introduced by **LOYAL**, a biotech company out of the Bay area. The temporary name is LOY-001, and it is in clinical trial as I write this.

The theory behind LOY-001 is that it may block the production of Insulin Growth Factor 1, or IGF-1 for short. Because IGF-1 can promote aging and cancer formation, the hope is that the use of LOY-001 will both reduce cancer formation and increase longevity.

Here's one thing you should understand. You can reduce IGF-1 in your dog right now, without any expensive drugs. How can you reduce IGF-1 in your dog?

- -Exercise
- -Reducing meal size
- -Reducing dietary protein and carbs (ie, kibbles)
- -Increasing dietary fiber and veggies.

Sound familiar? Oh, yeah — these are the things we should already be doing.

Thanks for reading this summary of Dog Longevity for 2025. You will learn much more in our upcoming digital course, so stick around. I appreciate you guys.

Dr. Kevin