Cornell University
College of Veterinary Medicine

DOG Watch

Expert information on medicine, behavior and health from a world leader in veterinary medicine

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IN THE NEWS . . .

Cornell Virologist Urges Canine Flu Vaccination

If your dog goes to day care, boarding kennels, dog parks and other canine-friendly places, ask his veterinarian about vaccinating him against the canine influenza that last year sickened hundreds of dogs in the Chicago area.

The contagious H3N2 has spread across the U.S., and virologist Edward Dubovi, Ph.D., at Cornell, who helped identify the virus, estimates it produces at least 10 times more virus than the older strain, H3N8. Two vaccines are now available, and he says, "Preventing the transmission of the disease through vaccination is highly recommended for those dogs at greater risk."

The flu can be transmitted by contact with infected dogs, their respiratory secretions and contaminated objects. Dogs can shed the virus for up to three weeks — far longer than the H3N8 version. There have been no reports or evidence that the canine flu virus can infect humans. ❖

The 'Test Tube' Puppies Are Thriving

Their arrival paves the way for gene editing to prevent disease and save endangered wild dogs from extinction

Three months after the news of the first litter of puppies born by *in vitro* fertilization — a breakthrough from Cornell and the Smithsonian heralded worldwide — the seven dogs are thriving, living happily with their adoptive families.

"They're doing great," says lead researcher Alexander J. Travis, VMD, Ph.D., associate professor of reproductive biology at the Baker Institute for Animal Health at Cornell University College of Veterinary Medicine. "My family adopted Red and Green, and they are loving the attention. Three of the puppies live in Virginia with the families of our colleagues at the Smithsonian. The other four are here in Ithaca."

Cornell

Differences in dogs' reproduction physiology vs. other species' presented challenges using *in vitro* fertilization.

The names of the other puppies, identified at birth by colored nail polish, are Cannon, Cornelia, Buddy, Kiwi and Ivy le Fleur. Two are

(continued on page 5)

The Big Surprise About Arthritis

Genetics and predisposition to hip and elbow dysplasia, and rupture of the knee can trigger it rather than aging

As the dog population ages, with some breeds living 15 years or longer, the number of dogs with arthritis is also growing. Advances in diagnostic veterinary medicine may have contributed to what Banfield Pet Hospital's 2015 State of Pet Health report found was a 30 percent increase in canine arthritis in the past five years.

The other equally important reasons: "Dog owners are more aware of the signs and symptoms of arthritis, and are more likely to seek veterinary help for their pets," says orthopedic surgeon Rory Todhunter, BVSc, Ph.D., ACVS, at Cornell University College of Veterinary Medicine.

Today's Resources. In addition, "Veterinarians are aware of the causes and effects of arthritis, and more options are available for treatment and prevention, including rehabilitation and sport medicine, and regenerative medicine," Dr. Todhunter says.

Arthritis is a degenerative condition of any freely moving cartilaginous joint, including hips, elbows, knees, ankles, shoulders and spine, Dr. Todhunter says.

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DOG Watch

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Growing Up With Dogs Reduces Risk of Asthma

Extensive studies in the past have suggested that children growing up on a farm cut their risk of asthma by about half. Now Swedish scientists have used data on more than one million children and found that those who grew up with dogs had fewer cases of asthma than children without them.

"Our results confirmed the farming effect, and we also saw that children who grew up with dogs had about 15 percent less asthma than children without dogs," says Tove Fall, Ph.D., assistant professor of epidemiology at Uppsala University, who coordinated the study with researchers from the Karolinska Institutet in Stockholm.

In Sweden, visits to medical specialists and prescriptions are recorded in national data bases, accessible to researchers after identifying information has been removed. Dog ownership registration has been mandatory since 2001. The scientists studied whether having a parent registered as a dog owner or animal farmer was associated with later diagnosis or medication for childhood asthma.

"These kind of epidemiological studies look for associations in large populations but do not provide answers on whether and how animals could protect children from developing asthma," says pediatrician Catarina Almqvist Malmros, senior author of the study, which was published in *JAMA Pediatrics* online.

"We know that children with established allergy to cats or dogs should avoid them, but our results also indicate that children who grow up with dogs have reduced risks of asthma later in life. Thanks to the population-based design, our results are generalizable to the Swedish population and probably to other European populations with similar a culture regarding pet ownership and farming."

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Swedish scientists found that living with a dog cut the chances of developing asthma by 15 percent.

Sources of Canine Flu

Doggie day care and boarding have been found to be potential sources of the canine influenza H3N2 in the outbreak in the Chicago area last year. In a survey of 81 veterinary clients, 42 percent of their dogs were believed to have been exposed to the virus in day care and 40 percent in boarding facilities, according to Merck Animal Health.

Veterinarians reported coughing was the most common sign in 95 percent of patients, followed by lethargy, 70 percent; lack of appetite, 63 percent; and fever, 58 percent. Onset was in one to three days for almost half the cases at 46 percent, and most dogs, 53 percent, were ill from four to seven days. While the flu can lead to death, most dogs recover with supportive treatment. Two vaccines, one from Merck, another from Zoetis, are available.

Unlike in human influenza, in which the very young and the aged are affected, most of the canine patients in the survey were middle-aged: 38 percent were from 4 to 7 years old, and 33 percent were 1 to 3 years old.

Last year Cornell's Animal Health Diagnostic Center and the University of Wisconsin analyzed hundred of samples to identify the influenza strain in the Chicago outbreak as H3N2. The virus is of avian origin, first isolated from clinically ill dogs in China in 2006 and South Korea in 2007.

"As a result of the very recent introduction of canine influenza virus into the U.S. dog population, virtually all dogs are susceptible to infection regardless of age or breed," says Edward Dubovi, Ph.D., director of the diagnostic center's Virology Laboratory. ❖

What You Should Know About Oily Coats

Illness, genetic conditions and even topical flea and tick preventives are among the many causes

Your dog has always sported a healthy, shiny coat free of odor. But lately after petting him, you find an unpleasant smell and greasy residue on your fingers. What's going on?

"The hair coat can tell a lot about the health, lifestyle and nutrition of an animal," says dermatologist William H. Miller, VMD, at Cornell University College of Veterinary Medicine. Certain genetic conditions, illnesses and, surprisingly, the application of topical flea and tick preventives can cause your dog's coat to become oily to the touch. Those products contain diffusing agents that can result in excessive greasiness between the shoulder blades.

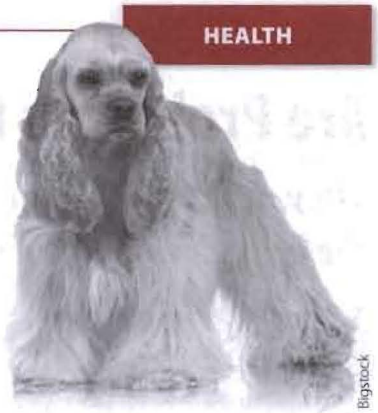
William H. Miller, VMD, Cornell

Primary seborrhea is genetic, with changes in the coat emerging early in life and worsening with age.

A variety of genetic skin disorders can be the reason for an oily coat, but primary seborrhea tops the list. Cocker Spaniels, English Springer Spaniels and English and American Bulldogs are among at-risk breeds. Affected dogs are flaky in some areas of their bodies and greasy in other spots, Dr. Miller says. "Since the disorder has a genetic basis, the coat changes are recognized early in life and worsen with advancing age." Telltale signs in addition to a greasy coat are groups of hair clumping together.

Other causes include:

- *Food or environmental allergies.* "Allergic reactions can result in an altered skin ecology that favors a bacterial or yeast overgrowth. Either of those organisms can result in a pronounced body odor," Dr. Miller says. "There are many different trigger events for the yeast overgrowth, but an underlying allergic condition is the most common. In some cases, the skin becomes inflamed, and then the animal will become itchy with all of the consequences that itching produces."



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Cocker Spaniels are among breeds at risk for the skin disorder seborrhea.

- *Demodex injae infestation.* This species of the *Demodex* mite tends to be found in the sebaceous glands, which secrete a lubricating oily matter called sebum into hair follicles.
- *Hyperandrogenism, an increase of sex hormones.* The rare condition usually occurs in intact males.
- *Gastrointestinal disorders.* "Some animals do not process nutrients properly and develop an unthrifty [unhealthy] coat with either flaking or greasiness," says Dr. Miller. "With certain nutritional deficiencies like zinc, other skin signs occur."

A veterinary visit is in order at the first sign of a decline in coat quality. A diagnosis can reduce your dog's discomfort and improve his chances for a quicker recovery. In some cases, his veterinarian may perform a skin biopsy to diagnose the possible underlying medical cause, and if it can't be quickly identified, make a referral to a dermatologist.

When the cause cannot be found or corrected, the owner will have to take over the grooming role. "Bathing is the best way to remove the greasiness," Dr. Miller says, "and frequent brushing will also work but takes more time to achieve the desired results. If there is a bacterial or yeast overgrowth and medicated shampoos can't be used, the dog will have to be treated with a systemic antibiotic or antifungal."

Beyond primary seborrhea, most cases of greasiness have an underlying cause that can be resolved. Bathing in these cases should only be necessary for a month or so. ❖

AT-HOME TACTICS

This multi-pronged approach from Dr. Miller can prevent an oily coat or help treat one already in progress:

- Brush your dog's coat as often as necessary. In some cases that will be daily.
- Bathe with a medicated shampoo recommended by his veterinarian. Be sure to follow the treatment directions to avoid causing the skin to become dry, irritated and inflamed.
- Feed a quality commercial diet that meets his nutritional needs, age, activity level and health condition.
- Use grooming time to inspect the skin for any potential problems.

Are Probiotics Right for Your Dog?

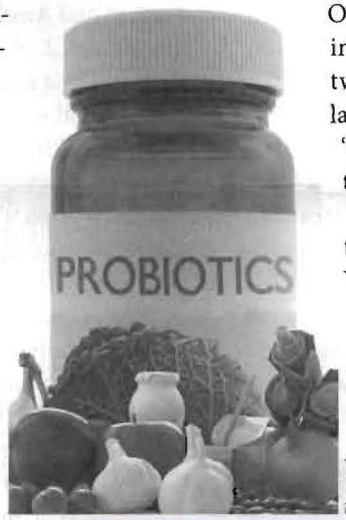
They may enhance digestion and immunity, but the burgeoning industry is largely unregulated

Your dog's gastrointestinal tract, like ours, is home to billions of bacteria. A healthy GI tract allows the absorption of food, while excluding toxins and disease-producing organisms. Yet malfunctions can sometimes occur. Perhaps your dog ate something he shouldn't have — something containing parasites that cause vomiting and diarrhea.

Given the growing interest in probiotics — live bacteria primarily intended for digestive health — you might wonder if they could help your dog. Probiotics are now account for 20 percent of annual sales in the $541 million pet supplement market, sharing the No. 2 spot with hairball products. (Omega fatty acid supplements are No. 1).

Research Continues. Studies on probiotics' efficacy are ongoing. Accurately labeled probiotic supplements have been shown to boost the population of resident bacteria while lowering the number of disease-causing bacteria. A peer-reviewed Nestle Purina PetCare study of GI bacteria in kittens and puppies found probiotics to be effective in regulating the immune system.

However, nutritionist Joseph Wakshlag, DVM, Ph.D., associate professor at Cornell University College of Veterinary Medicine, issues a caution about probiotic products: "Anyone can take some bacteria, package it and put it up for sale, so quality control is lacking."



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Probiotics are live bacteria primarily marketed for digestive health.

The FDA's Center for Veterinary Medicine doesn't regulate supplements like probiotics as it does pharmaceuticals, so the consumer doesn't know if bacteria in their supplements are alive or dead, says Dr. Wakshlag, president-elect of the American College of Veterinary Nutritionists. "This is an important distinction because live bacteria can stimulate the immune system to release more antibodies, as well as improve the GI flora [bacteria]. Dead bacteria may stimulate the immune system but will not change the gut flora."

As part of its effort to improve animal supplements, the National Animal Supplement Council, an industry group, initiated a certification program for members meeting quality standards.

Standardization has been a problem in the industry. A 2009 study at Ontario Veterinary College in Canada found that only two out of 25 probiotics were labeled properly and had the "good bacteria" they claimed to contain.

"That's how haphazard these products can be," Dr. Wakshlag says. "There are also no clinical trials or efficacy trials required for these products. But as long as the product labels are not making any outrageous claims, the manufacturers are free to sell their product — and pet owners are free to buy it."

In some cases, consumers might not know the number of bacteria in each capsule or even if they're an appropriate type. "For example, the products could contain other bacterial strains than the one that they are promoting, which is usually a good bacteria like *Lactobacillus*," says Dr. Wakshlag.

On the other hand, while he hasn't heard of any miraculous recoveries, Dr. Wakshlag says, "I have heard that probiotics have helped in some cases. Pet owners try probiotics when gastrointestinal problems surface in their dog. They may be looking to get a handle on their pet's diarrhea and/or vomiting. The dog's gut bacteria may be out of balance, and they are seeking to re-establish the 'good' bacteria and return their pet to regularity."

Dr. Wakshlag recommends probiotics for mild GI problems. "They are another tool in the veterinary toolbox. Perhaps they are more like a chisel than a hammer, but they are a tool nonetheless." ❖

PROBIOTICS AREN'T FOR ALL DOGS, ALL CASES

Many owners like to feel they're enhancing their pets' health with probiotics, but their first course of action should be a veterinary consultation. The supplements may enhance immunity and digestion but not in every dog, says nutritionist Joseph Wakshlag, DVM, Ph.D., at Cornell. "As an example, owners may simply add probiotics randomly to their pet's diet without first knowing what is causing their pet's diarrhea."

The cause could be stress, inflammatory bowel disease or something else entirely. "Some veterinarians prefer to hold off on recommending probiotics in instances of inflammatory bowel disease," Dr. Wakshlag says. "If the immune system is already revved up, it may not be advisable to use probiotics, which can further stimulate it.

"However, puppies may have depressed immune systems due to their immunity not being fully developed. Similarly, older dogs may have depressed immune systems because of the general aging process. In these cases, probiotics can be helpful."

TEST TUBE...

(continued from cover)

from a Beagle mother and Cocker Spaniel father, and five from Beagle fathers and mothers.

Their birth culminates more than 40 years of canine IVF research that can lead to the eradication of heritable diseases in dogs and people, Dr. Travis says. "There are over 350 genetic traits and diseases that are similar between dogs and humans. The dog has 362 tallied, which is almost twice the number of the next nearest species — the cat." (Please see sidebar.)

He makes clear, however, IVF is not a treatment for diseases, "but along with new technologies such as gene editing [a type of genetic engineering in which scientists replace, repair or remove DNA], IVF potentially provides an approach to fix these problems."

Saving endangered wild dogs can be another significant benefit, Dr. Travis says. "Two species of canid have gone extinct in South America, and five are currently endangered, including the Red Wolf and African Painted Dog. We can freeze and bank sperm, and use it for artificial insemination. We could also freeze oocytes [eggs], but in the absence of *in vitro* fertilization, we couldn't use them. Now we can use a technique developed in our research to conserve the genetics of endangered species."

Zoological Society of San Diego

Techniques used for canine *in vitro* fertilization could conserve the genetics of endangered species such as dholes (pronounced *doles*), also known as Asian wild dogs and whistling dogs. They live in packs of five, 10, 30 or more, and are adept at flanking in hunting prey. These two live at San Diego Safari Park.

IVF in dogs faced considerable challenges. First, because a female dog's reproductive cycle differs from other mammals, canine eggs need extra time to mature to reach the same stage of cell maturation as other animals such as humans. But even then, Dr. Travis' lab found that these eggs failed to fertilize. A key finding was that if the eggs were left in the oviduct an extra day, they were much more likely to succeed.

A critical change was also needed on the male side. Building on Dr. Travis's earlier work on sperm physiology, the team found sperm were better able to fertilize when they added magnesium to the cell culture. "We made those two changes, and now we achieve success fertilization rates of 80 to 90 percent," he says.

The final hurdle arose because female dogs can become pregnant only once or twice a year. Embryos must be created in advance and preserved until a female recipient or surrogate is at the right point in her cycle. The team solved this by learning how to freeze the embryos, another technique developed by Dr. Travis' lab.

Researchers at Cornell transferred 19 embryos to a host female, who gave birth to the seven healthy puppies in July last year. The surrogate, named Jewel, was spayed and lives with her new family.

The study's first author, Jennifer Nagashima, was the first graduate of a joint training program between Cornell and the Smithsonian Conservation Biology Institute. Her participation was funded by the Smithsonian, Cornell's Atkinson Center for a Sustainable Future and Baker Institute for Animal Health. Her mentor at the Smithsonian was oocyte biology expert Nucharin Songsasen, DVM, Ph.D. The National Institutes of Health and Baker Institute provided funding for the project itself.

News of the "test tube" puppies was greeted with widespread media attention but generated some criticism on social media because of the mistaken belief the purpose was simply to create more dogs. The overpopulation of shelter dogs is indeed an important problem, Dr. Travis says, "but IVF dogs will not contribute to it. Successful IVF for canines may one day enable researchers to remove genetic diseases and traits in an embryo, ridding dogs of predisposition to diseases such as lymphoma. With a combination of gene editing techniques and IVF, we can potentially prevent genetic disease before it starts." ❖

GENETIC TRAITS WE SHARE: AT LEAST 362

A University of Sydney website at http://omia.angis.org.au/home has extensive lists of animals' traits, disorders, known mutations and — strikingly — similarities in canine and human disease.

Check out Dog/Potential Models for Human Disease, and you'll find a list of 362, such as Alzheimer's, cleft palate, diabetes mellitus and renal dysplasia. The lists also include breed dispositions, such as Dalmatians' being prone to urinary stones, which in males, as Alexander J. Travis, VMD, at Cornell points out, often can lead to blockage.

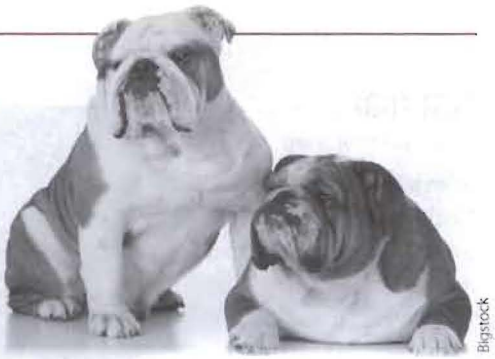
ARTHRITIS ... *(continued from cover)*

"Its hallmark symptom is joint pain. While it is difficult to quantify the level of pain dogs are experiencing, if they display behavioral changes, especially limping, they are experiencing significant pain."

Dogs seldom vocalize about their pain. "Other symptoms besides an obvious limp include difficulty getting up from a recumbent position, difficulty jumping into the car or truck, stiffness after exercise, especially the day after exercise if they are unaccustomed to it, like you and I, when we overdo it." Dr. Todhunter says.

Age and breed affect the development of arthritis. One study done by Purina estimated that one in five dogs develop arthritis over their lifetime. The Orthopedic Foundation for Animals' registry [www.offa.org] shows significant breed variation in hip dysplasia, which leads to arthritis, Dr. Todhunter says, "For example, Bulldogs have a 75 percent chance of developing hip dysplasia, while for Whippets, it's only 1 percent. And while the registries have not collected data on ruptured cruciate [knee] ligaments, which are also associated with arthritis, we know that in 2003, dog owners spent $1.3 billion on treatment for ruptured cruciate ligament repair."

Underlying Disease. Dogs almost always suffer from arthritis due to a genetic or inherited predisposition to hip and elbow dysplasia, and rupture of the anterior cruciate ligament. The underlying genetic disease causes a surface defect or instability in the joint, which subsequently leads to arthritis because the joint does not work easily and efficiently.



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Bulldogs have a 75 percent chance of developing hip dysplasia, which can lead to arthritis.

Joints begin to articulate — join together — in utero, Dr. Todhunter explains. "During puppy development, the joint surfaces have to be in contact for normal joint development. Hip dysplasia begins to happen between between 2 and 3 months of age."

An orthopedic exam at 3 or 4 months *may diagnose abnormalities*, but X-rays are often not sensitive enough for early arthritis detection. "An astute owner might notice that their puppy has wobbly hips and a bunny-hopping gait," says Dr. Todhunter. "But unless the owner is observant or the puppy is screened for hip dysplasia and hip laxity, the arthritis may not manifest for months or maybe years on a radiograph [X-ray] when the dog begins to have trouble running, hiking and jumping. By then, it is considered secondary arthritis."

As the cartilage in these joints degenerates, "remodeling" occurs, Dr. Todhunter says. "Thickening of the tissue around the joints leads to restricted joint movement and bone spurs that can be seen on radiographs develop at the joint margins."

Joint Swelling. While X-rays can detect the joint swelling associated with arthritis in the wrist, ankle and knee, they can't detect swelling in the hips, elbow or shoulders. Further, about a 30 to 40 percent change in bone density has to happen to see it in an X-ray, by which time, Dr. Todhunter says, the disease has progressed. A less common cause of arthritis is severe trauma, such as a fracture that interrupts the joint surface or changes the angle of a limb.

While arthritic damage is irreversible, symptoms do wax and wane. "Obesity,

FIRST CHOICE FOR THERAPY: LOSING EXCESSIVE WEIGHT

The most significant predictors that dogs will develop arthritis are genetic susceptibility, rapid growth through over-nutrition and excessive weight. Dr. Todhunter says many dogs he's treated over the years have been overweight. One who should have weighed 80 pounds weighed in at 150. "His back looked like a coffee table."

If there's an option for an arthritic dog to lose weight, that should be an owner's first choice for therapy, Dr. Todhunter says. "Whether or not they have surgery, all of our referred patients go home with a weight and a pain management plan. The rule of thumb is for a dog to lose only 1 to 2 percent of his body weight per week. Calculate your pet's optimal food intake with your veterinarian and cut out treats."

His additional advice to make life easier for an arthritic dog:

- **Controlled exercise.** "Owners can see how much exercise their dog will tolerate prior to treatment. A dog will simply sit down when he has had enough," Dr. Todhunter says. "The owner can then introduce various therapies and see if the dog will then walk farther. Swimming is easiest on the joints. But when hiking or running, try to keep arthritic dogs on sand, soil or grass, which are better surfaces than blacktop. Lastly, don't force dogs with arthritis to retrieve."
- **Physical therapy.** The Sports Medicine and Rehabilitation Service at Cornell and other specialty clinics offer massage, directed exercise to strengthen muscles, laser therapy, underwater treadmill exercise and acupuncture.
- **Home modifications.** "Arthritic dogs are better off kept on one level of the house," Dr. Todhunter says. "Ramps to access the home, car or bed, or heated beds, can help keep your dog more comfortable."

Cornell

Arthritis' hallmark symptom is joint pain, says orthopedic surgeon Rory Todhunter, BVSc, at the left, at Cornell. "While it is difficult to quantify the level of pain dogs are experiencing, if they display behavioral changes especially limping, they are experiencing significant pain."

rainy weather, too much exercise or concentrated exercise — such as the 'weekend warrior' variety — can all exacerbate arthritis symptoms," Dr. Todhunter says.

Corrective surgery can help slow the progression of arthritis but can be expensive. Cranial cruciate ligament repair can cost $3,000 to $6,000. And while some forms of osteoarthritis surgery help or slow down the problem, others do not. "Short-term results tend to offer good results in young dogs," Dr. Todhunter says. "Total hip replacements work better than elbow and knee replacements because veterinary surgeons have been doing total hip replacements since the 1970s, so the procedure is well advanced. By contrast, knee and elbow replacements are relatively new. There is no data yet on their long-term efficacy."

Managing Pain. If arthritis passes the point where surgery is an option, then medical management might consist of weight reduction, controlled exercise and medications for pain management and improved function. "Up until about 15 years ago, aspirin was all there was for pain relief," Dr. Todhunter says. "Today there are nonsteroidal anti-inflammatory drugs (NSAIDs), which cause fewer side effects than aspirin although they also cost more." Side effects of NSAIDs include vomiting, blood in the stool and inappetance.

Glucosamine/chondroitin supplements vary in price, but Dr. Todhunter cautions, "There is no FDA regulation of these nutraceuticals." Veterinarian-prescribed Cosequin and Dasuquin, both FDA-approved, are more expensive, as is Adequan, a chondroprotective drug injected systemically once or twice a week.

The biggest surprise to owners when their dogs have arthritis or other elbow, hip, knee or shoulder disorders is that genetics is the cause rather than aging, Dr. Todhunter says. "Our biggest educational challenge is in the area of genetic propensity. Every breed is susceptible to something. If you breed purebreds with genetic susceptibility to a heritable trait, on average a portion of the offspring will inherit the problem"

When choosing a dog, people often fail to ask the breeder about breed susceptibility to inherited disorders, Dr. Todhunter says. "Generally speaking, people are better off with mixed-breed dogs with a good variety of genes, such as those often found in shelters. Although there are no guarantees, these dogs tend to be healthier. If you cross-breed pure breed dogs, each with mutations for the same trait or disease, you will still see inherited disease in their offspring." ❖

CORNELL RATES GENETIC QUALITY FOR HIP AND ELBOW HEALTH

The biggest advances in preventing arthritis will come from reducing the breeding of dogs carrying mutations that render their offspring vulnerable, says Dr. Todhunter.

"Future research will enable us to better predict genetic susceptibility. Hopefully, people will use this research and take pedigree into account when breeding or choosing dogs. For example, puppies under 6 weeks old could be tested, and only the healthiest animals chosen to breed when adults."

If X-ray results and pedigree relationships were used to breed only the healthiest 50 percent in a breed, it would go a long way toward reducing secondary arthritis, Dr. Todhunter says.

The method uses what are called estimated breeding values (EBV). In 2014, Cornell launched a groundbreaking website — the first public resource of its scope — devoted to them. It rates the hip and elbow quality of a million registered purebreds for owners, breeders and buyers. The site explains how to use the values to identify sires and dams of purebreds with the best genetic quality to produce healthy offspring for hip and elbow quality. This website will be upgraded with current EBVs and inbreeding coefficients, which measure the likelihood of genetic defects resulting from inbreeding.

A commercial DNA test for Labrador Retrievers — the Dysgen Test — is on the market, intended to determine their genetic predisposition to develop hip dysplasia. "We do not know how much this test is used and if it works to reduce hip dysplasia in Labrador Retrievers," Dr. Todhunter says. "We have yet to discover the gene mutations for hip dysplasia, cranial cruciate ligament defects and elbow dysplasia." All three traits are precursors to arthritis.

HELP FOR OWNERS, BREEDERS AND VETERINARIANS

Owners, breeders and veterinarians can find information on providing care for current dogs and making informed decisions on breeding and buying dogs at Cornell's website rating the hip and elbow quality of registered purebreds at www.vet.cornell.edu/research/bvhip.

Katherine A. Houpt, VMD, Ph.D.,here with her West Highland White Terrier, Yuki, provided the answer on this page. Dr. Houpt is a diplomate of the American College of Veterinary Behaviorists and emeritus professor at Cornell University College of Veterinary Medicine.

Please Share Your Questions
We welcome questions of general interest on health, medicine and behavior. We regret however, that we cannot comment on specific products and prior diagnoses. Please send correspondence to:

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COMING UP ...

INHALANT ALLERGIES

❖

SHELTER ALTERNATIVES

❖

EMERGENCIES

❖

LASER THERAPY

Is Her Shih Tzu Grieving a Loss Or Suffering a Metabolic Problem?

Q A dear friend of mine lost her husband two months ago, and her 8-year-old Shih Tzu, Piccolo, has just now started to show what seems to be signs of grieving. After dark, he seems spooked, wanting to go outdoors, coming back inside and going out again. He stares at the living room window at night when the blinds are shut. He scratches the door leading to her husband's dressing room and bathroom, then on the door leading to the garage.

Before bedtime, he used to get a dental bone, but now he refuses his bone and won't follow my friend into the kitchen. Not for a treat or a sample of what she's eating. He has no interest

A usually playful, inquisitive pet, he refuses attention and won't clown around. A recent physical showed an ear infection, which has cleared up. I know pets can feel the loss of people in the household, but this seems a special case. Would you please tell us what could be going on?

A *Your friend's dog may be mourning the loss of her husband, although the two-month lag time is unusual. There is usually a flurry of activity following death, as children, relatives and friends visit for the funeral and neighbors come with casseroles and condolences. This may have kept her Shih Tzu from realizing that one of his family was missing.*

Just to be sure that my Cairn, Nini, would understand the fact my husband was gone, I took her to the funeral. Of course, that probably was more as a comfort to me than to her. When she died two years later, she was sleeping on one of his lab coats in his old office.

I suspect there may be something wrong metabolically with the little dog, something that a physical examination could not detect. If Piccolo continues to act so depressed, I would have a complete blood count and a chemistry screen done to rule out any of the myriad diseases of middle-aged to senior dogs. His signs are those of anxiety — nighttime fears, disinterest in play, etc.

Piccolo has no interest in play or food, and refuses attention.

His owner can try one of the over-the-counter remedies, such as Anxitane, which contains theanine, the green tea extract; Zylkene, which contains cazosepine, a milk protein; or Harmoneses, a flower essence. Scientific studies indicate those preparations reduce anxiety.

A Thundershirt reassures some dogs because it swaddles them firmly. This is the type of pressure that Temple Grandin, the autistic animal welfare expert, finds comforting. There are also the pheromone collars such as Adaptil that are synthetic versions of an odor produced by the mother dog to attract puppies to nurse. His veterinarian can prescribe one of a number of antianxiety medications if his blood work is normal.

Piccolo is probably reacting to his owner's grief whether or not he himself is missing the husband. The hardest thing for her will be to act happy, even though she misses her husband terribly and keeps thinking, "We will never gain plan a trip or curl up together watching a movie on TV." Piccolo will be happier and more willing to play if she is animated and makes high-pitched happy noises.

His owner can try to enrich his life by trying a more delicious treat than a dental bone and by taking him on walks or to the dog park if it has a small dog section. A weekly day at doggie day care may help to cheer him up, depending on his personality. Reminding him of his good manners so he can get a tiny piece of lunch meat for sitting when asked can also make him happier.

Please extend my sympathy to your widowed friend. I hope she and Piccolo can find life worth living again. ❖

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