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PCC Winter Newsletter

APRIL 2017

WINTER NEWSLETTER

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New Study About Animal Longevity Turns Up Weird Anomaly

BY DR. BECKER

When it comes to the lifespan of mammals, the general rule is the bigger the creature, the longer it will live. For example, [elephants](#) in their natural habitat can live into their 60s. The average lifespan of a squirrel, on the other hand, is only about six years.

Small mammals normally have lower metabolic rates than larger species, which is why larger animals with higher metabolic rates live longer. However, when it comes to domestic dog breeds, even though smaller dogs have lower metabolic rates, they live longer than large and giant breeds.

This is essentially the opposite of what occurs in other species. A [Yorkshire Terrier](#), for example, can be expected to live from 13 to 16 years, whereas a Great Dane will live only about half that long.

A Big Dog's Life 'Unwinds in Fast Motion'

A 2013 study established that big dogs die younger primarily because they age quickly.¹ Study authors believe these findings can help scientists understand the biological links between growth and mortality.

Dogs were the perfect subjects for the study, because humans have bred them throughout history to be wildly variable in size.

The heaviest dog on record was probably an English Mastiff that weighed 343 pounds, while the smallest was a terrier weighing in at under a quarter-pound.² There is no other species of mammal with such tremendous size disparity.

The study looked at ages of death in 74 breeds and over 56,000 dogs that visited veterinary teaching hospitals. Researchers learned that large breeds seem to age at faster rates than smaller breeds, and the speed at which the risk of death increases with age is also greater with big dogs.

According to study authors, large dogs age at an accelerated pace, suggesting "their adult life unwinds in fast motion."³ For a dog, every 4.4 pounds of body mass takes about a month off his life.⁴

The researchers next want to look at the growth and health histories of dogs to narrow down the leading causes of death for large breeds. For example, [bigger dogs more often acquire cancer](#), which makes sense

when you consider they grow more than small dogs, and cancer is the result of abnormal cell growth.

It's possible humans have inadvertently selected for characteristics — like rapid growth — that predispose large dogs to cancer.

Other large animals like elephants that have many more cells than smaller creatures — and should therefore also be at greater risk for cancer — seem to have evolved special defense mechanisms against disease.

These mechanisms probably developed through natural selection over a very long period of time, whereas most [dog breeds have evolved through selection by humans](#), and over a much shorter period of time.

Evolutionarily speaking, dogs have evolved in the blink of an eye, and protective mechanisms against cancer and other diseases haven't had time to catch up.

Is There a Difference in Levels of Oxidative Stress in Large Versus Small Dogs?

Recently, two undergraduate students at Colgate University decided to investigate why smaller dogs seem to age more slowly than large ones.⁵ For their study, the undergrads wanted to look specifically at the influence of free radicals and oxidative stress on the aging process in dogs. Oxidative stress, which is associated with aging, is defined as physiological stress on the body caused by the cumulative damage done by oxygen free radicals inadequately neutralized by antioxidants. Free radicals are unstable molecules with an uneven number of electrons.

These unstable molecules travel around the body looking to bond with stable molecules so they can steal an electron and stabilize themselves. When they are successful, they create new unstable molecules that damage cell membranes and eventually contribute to cancer and other diseases.

The researchers contacted veterinarians and collected about 80 tissue samples (removed during routine surgical procedures) from both large and small breeds of varying ages, from puppies to old dogs.

With the help of a Colgate animal physiologist, they isolated cells from the tissues, grew them in a lab dish for several weeks and then analyzed them.

Cell Damage

About Animal Longevity

From Free Radicals Starts Early in Large Breed Dogs
The students discovered that energy and free radical production in the cells from the adult dogs was comparable for both large and small breeds, as were the amount of antioxidants.

However, the cells from large breed puppies had excessive amounts of free radicals — too many for antioxidants to effectively neutralize.

Large breed puppies have faster metabolisms and growth rates than smaller breeds, and the results of this study suggest cellular damage starts accumulating at a young age in larger dogs. "Cell damage even at this young age can have long-lasting effects," says researcher Josh Winward.

The Colgate study results are preliminary, but if they can be replicated in future research, according to Winward, it might be possible to extend the life of large and giant breeds by supplementing antioxidants in puppies to help destroy free radicals before they can do damage.

Helping Your Big Dog Live a Long, Healthy Life

If you're the parent of a large or giant breed dog or are thinking about adding one to the family, I hope you'll watch my [interview with a wonderful Newfoundland breeder, Dr. Jeff Bergin](#), whose dogs live into their late teens.

If you're familiar with Newfies, you know a 17-year lifespan is almost unheard of! Some of the wonderful practices Dr. Bergin follows with his dogs include:

- **Feeding exclusively raw, balanced diets.** Fresh meats and organs provide an excellent base for puppies, and vegetables and fruits provide much needed antioxidants for a growing body.
- **Breeding for health, first and foremost.** Dr. Bergin breeds his dogs only once or twice during the course of their lives, with at least six years between litters. He does not breed dogs with congenital defects, and so far only one of his dogs has had a genetic health issue, a heart problem. (Heart problems, osteosarcoma and hip dysplasia are the most common health challenges for this breed.)
- **Performing regular chiropractic adjustments.** With large and giant breed dogs, it's very important to take care of the musculoskeletal system. Dr. Bergin happens to be both a licensed animal chiropractor as well as a human chiropractor. He performs regular manual orthopedic manipulation on all his dogs, from the moment they first stand on their own through the remainder of their lives.
This practice is one of the keys to keeping a big dog's frame from degenerating with age. Dr. Bergin's dogs are typically still fully mobile even at the end of their lives.
- **Limiting vaccines and other assaults on the immune system.** Dr. Bergin only revaccinates his dogs against rabies, because the law requires it. By strictly limiting the number of vaccines they receive, he helps keep his dogs' immune systems strong and resilient.
- **Insuring litters go to the right families.** Dr. Bergin performs a mandatory home visit to families interested in his dogs. He won't release a dog without seeing the new home. He conducts in-depth interviews with prospective owners to insure the puppy will be well taken care of, and he also insists on a commitment from prospective owners to feed raw.
For most pet parents, it's the quality of their dog's life that is most important. You may have your animal companion with you for eight years or twice that long.
By focusing on what I call the three pillars of health — nutrition, maintenance of the frame and a strong, resilient immune system — you can insure you're providing your canine companion with everything she needs for an excellent quality of life for as long as she lives.

The reason why dogs don't live as long as people according to a 6 year old:

"People are born so that they can learn how to live a good life. Like, loving everybody all the time, and being nice. Well, dogs already know how to do that, so they don't have to stay as long."

A Feel Good Story About Generosity



with that the vets helped Juliana set up her account.

Rags is out of surgery and doing well. He was fully tortioned with a partially tortioned spleen, Poodle people are unique. SPAG members are amazing! One of our own reached out for help and help we did, thats what makes groups like our so special! We surpassed the goal needed to take care of Rags!

I thought you could use a feel good story and decided to share with the permission of Juliana McMullin (loving owner of Rags), Lynda Lemmon (admin of SPAG) and Janet Fine (admin of SPAG)



An amazing thing happened on the Facebook group Standard Poodles are Great!

In desperation, one of our members, Juliana McMullin, posted that her poodle was bloating. She had given Rags Gas-X without any improvement.

You see, none of the vets in her area would see him without payment up front, a very costly procedure with \$1700 being just the upfront payment. Juliana applied for Care Credit and was denied. She was reaching out to our 10,000+ members for possible solutions.

And then it happened. "Take him to the ER vet", "Maybe we can all help by donating directly to the vet", "I would like to donate", "Im ready with my credit card", "contact the Sergei Foundation", "set up a GoFund Me account". And

THE MOTHER OF ALL EMERGENCIES

For over 30 years breeders and owners of Standard Poodles have been concerned about reducing their dogs' risk of bloat. Here's some generalized information to help you understand new information learned

Bloat, also known as the overfeeding or overeating syndrome, involves a swelling up of the stomach from gas, fluid or both (acute gastric dilation). Once distended, the stomach may twist abruptly on the long axis. If it does twist, but the twist is 180 degree or less, it is called a torsion. A twist greater than 180 degrees is called a volvulus.

What We're Learning About Bloat

A Review - S. Greene

Bloat (Gastric Dilation - Torsion Complex)

The term "Bloat" refers to any of three conditions:

- Acute gastric dilation
- Torsion
- Volvulus

Signs and Symptoms of Non-Torsion Bloat - Acute Gastric Dilation

The signs are excessive salivation and drooling, extreme restlessness, attempts to vomit or pass stool and evidence of abdominal pain - the dog whines and groans when you push on the stomach wall. The abdomen will be distended.

If your dog can belch or vomit, quite likely the condition is not caused by a twist. You must take the dog to a veterinarian where a long rubber or plastic stomach tube will be passed into the stomach. If there is a rush of air from the tube, the swelling in the abdomen will subside and there is almost immediate relief.

Signs and Symptoms of Torsion or Volvulus - A LIFE AND DEATH SITUATION

The initial signs are those of acute gastric dilation, except the distress is more marked. The dog breathes rapidly, has cold and pale mouth membranes and may even collapse. The *shock-like* signs are caused by strangulation of the blood supply to the stomach and the spleen.

In torsion or volvulus, a tube cannot be passed into the stomach. The only treatment is **IMMEDIATE** surgery and you must rush the dog to closest veterinary surgeon.

Preventing Bloat - The Purdue University Study

Many measures have been recommended and tried, but-until recently there has been little scientific evidence that any worked.

Now, thanks to the *Purdue University Bloat Study*, that picture is starting to change. Supported by grants from the American Kennel Club's Canine Health Foundation, Morris Animal Foundation and 11 parent breed clubs, including the *Poodle Club of America*, this five-year prospective study is the first of its kind. And it is yielding information on what breeders and owners should and shouldn't do to reduce Standard Poodles risk of bloat.

The Purdue researchers, led by veterinarian and epidemiologist Dr. Lawrence T. Glickman, have thus far issued two reports of their findings, both published in the peer-reviewed *Journal of the American Veterinary Medical Association (JAVMA)*. The more recent of the two, which appeared in the November 15, 2000, issue of JAVMA, contains findings that should cause Standard Poodle breeders and owners to step back and re-think bloat prevention information.

One of the more important findings was that there are significant differences between the "large breeds" studied (Akita, Bloodhound, Collie, Irish Setter, Rottweiler, Standard Poodle and Weimaraner) and the "giant breeds" studied (Great Dane, Irish Wolfhound, Newfoundland and Saint Bernard). The results reported here apply to the "large breeds" only, e.g. our **Standard Poodles**.

Old Thoughts: What We Used to Think About Bloat

Over the years, breeders, owners and veterinarians have developed a body of lore about what causes bloat and how it can be prevented. Here are some of those things which we now know are NOT correct, i.e. bloat is caused by -

- Too much exercise on a full stomach.
- Overloading the stomach.
- Swallowing air when eating.

We USED to think that bloat could be prevented or reduced by -

- Wetting dry kibble so that it won't swell in the stomach.

- Raising the food dish above floor level. Weight, breed size, the ratio of the depth of the thorax to its width and stress were not significantly associated with the risk of bloat in large breed dogs. In addition, several measures that have long been recommended to reduce the risk of bloat were found to have no effect.

Factors That Make NO Difference

These measures, long been thought to reduce the risk of bloat, were found to have no effect:

- Restricting exercise before or after eating
- Restricting water intake before and/or after meals
- Feeding two or more meals per day Moistening dry kibble before feeding.

Conclusions

The Purdue research team concluded these are the things you can do to prevent bloat:

- The strongest recommendation to prevent GVD (bloat) should be to not breed a dog that has a first degree relative that has had bloat. This places a special responsibility on an owner to inform the breeder should their dog bloat.
- Do not raise the feeding dish.
- SLOW the dog's speed of eating.
- A future report from the research team will provide data on dietary factors and how they may or may not be associated with bloat risk.

References:

1. <http://www.vet.purdue.edu/epi/bloat.htm>
2. Glickman LT, Glickman NW, Schellenberg, DB, et al. Non-dietary risk factors for gastric dilatation-volvulus in large and giant breed dogs.
3. Dog Owner's Home Veterinary Handbook, Delbert G. Carlson, DVM and James M. Giffin, MD

ABSTRACT - Nutrient Intake and Bloat

Malathi Raghavan, DVM, MS; Lawrence T. Glickman, VMD, DrPH; Nita W. Glickman, MS, MPH; Diana B. Schellenberg*, MS.

Dietary risk factors for gastric dilatation-volvulus (GDV) in dogs were identified

using a nested case-control study. Of 1991 dogs from 11 large- and giant-breeds in a previous prospective study of GDV, 106 dogs that developed GDV were selected as cases while 212 remaining dogs were randomly selected as controls. A complete profile of nutrient intake was constructed for each dog based on owner-reported information, published references and nutrient databases. Potential risk factors were examined for a significant ($p < 0.05$) relationship with GDV risk using unconditional logistic regression.

The study confirmed previous reports of increased risks of GDV associated with increasing age, having a first-

degree relative with GDV, and having a raised food bowl.

New significant findings included a 2.7-fold (or 170%) increased risk of GDV in dogs that consumed dry foods containing fat among the first four ingredients. The risk of GDV was increased 4.2-fold (or 320%) in dogs that consumed dry foods containing citric acid that were also moistened prior to feeding by owners. Dry foods containing a rendered meat meal with bone among the first four ingredients significantly decreased GDV risk by 53.0%.

Approximately 30% of all cases of GDV in this study could be attributed to consumption of dry foods containing fat among their first four ingredients, while 32% could be attributed to consumption of owner-moistened dry foods that also contained citric acid. These findings can be used by owners to reduce their dogs' risk of GDV.

***This manuscript has been accepted for publication in the *Journal of the Animal Hospital Association (JAAHA)*.**

Why Interactive Play Keeps Your Dog Happy and Healthy

Written by: Alex Lieber

Published: September 21, 2014

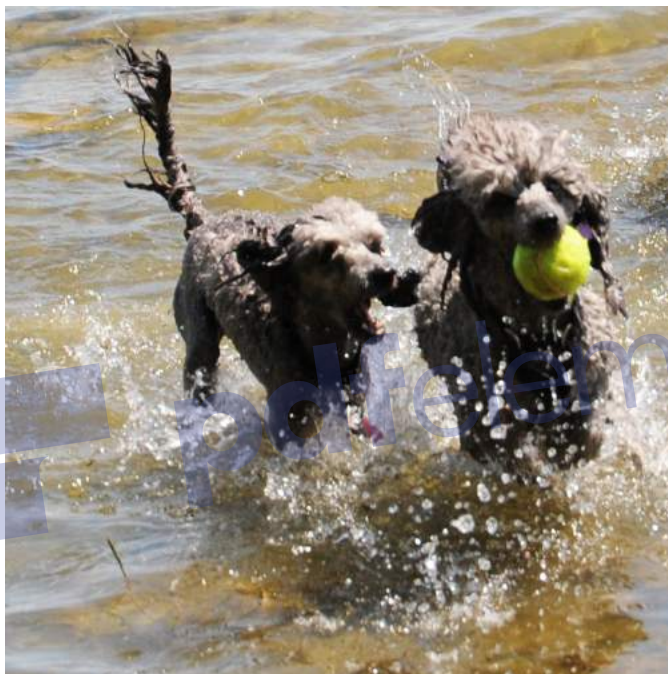
Last Modified: March 28, 2016

Summer is a wonderful time to spend outdoors with your dog. Here's your chance to reclaim the outdoors. Get your dog and go out to your yard or the park for some fun. To help you along, we've compiled some activities and tips on how to make them more enjoyable.

Fetch

This time-honored game requires nothing but a lightweight ball of relatively soft material (if it is too hard, the ball could damage your dog's teeth) and a willing dog. Make sure the ball isn't too small, otherwise he could accidentally swallow it while leaping. (Depending on the size of the dog, even a tennis ball could be too small.) The object is of course to have your dog bring the ball back to you. That isn't always the case; sometimes the dog trains the owner to run after the ball. Unless you don't mind running at your dog's whim, here are a few suggestions:

- Don't play if your dog pushes the ball at you then snatches it away as you reach for it, or if he dances around with the ball in his mouth, teasing you. You're just reinforcing the idea that he can give you orders.
 - As the pack leader, YOU decide when to bring the ball out and when to throw it. Keep the ball in a special area that your dog is aware of, so when he sees you bring the ball out, he becomes excited and eager to please.
 - Follow the practice of performers to "leave 'em begging for more." In canine parlance, that means quit the game while he's still interested, not when he becomes bored.
 - Lavish praise on him immediately when he retrieves the ball and brings it to you.
- You can substitute the ball with a Frisbee. To learn how to teach him the game,



Swimming

If there's a body of water nearby, your dog may want to go for a dip (only allow this if it's safe AND permitted). Most poodles take to the water like ducks, but if he's new to swimming, you'll want to make sure he can swim. Never just throw him into the water, and always supervise his water activities.

- Stand in shallow water and call to your dog. You may want to coax him with a toy or a treat.
- Your dog should use all four legs to doggie paddle. If he

paddles with just his front paws, lift his rear legs to help him float. He'll quickly understand that he needs all his legs to swim.

- Swimming is strenuous to any creature not used to it, so don't let your dog swim for too long. If you're at the beach, **watch out for strong tides**, and don't let your dog drink saltwater. (You should also be aware that your dog is a target for sea lice and jellyfish.) Incidentally, if you take your dog to the beach, you should bring along fresh water and shade. Dogs can get sunburned too.

Hoops

What would you rather do, watch overpaid athletes strut around a basketball court or play hoops with

your dog? Teaching him how isn't difficult, and he'll be grateful for the chance.

1. Take a container such as a big cooking pot, laundry basket or large plastic pail and weight it down with a heavy object (so it won't get knocked over).
2. Introduce your dog to the basket and the ball. As he watches, drop the ball into the bucket several times, while saying "drop."
3. Give him the ball, then bring him over to the bucket and say "Drop." Do this until he drops the ball in the basket, then immediately praise him (you might give him a small treat as well). You'll have to repeat this several times before he makes the connection between the reward and the action.
4. When the connection is made, roll or throw the ball

The Benefits of Playing With Your Dog

to him and watch him doggie-dunk it!

Hula Hoop

Begin by holding a hula hoop (still available at most toy stores, believe it or not!) upright, but on the floor. Lead your dog through the hoop, then reward him with praise or a treat (or both). Repeat several times.

- Raise the hoop several inches off the ground and lead him through again. Then let him go at it!
- Keep raising the hoop a little more each time to make it more of a challenge, rewarding your dog each time he makes it through. Quit before he gets bored or no longer wants the treats.



their sense of smell is so important for most dogs, this game is great fun.

Teaching Your Dog

To play this game you'll need three small to medium sized identical flower pots. The pots can be clay, plastic or ceramic, but choose pots with a hole in the bottom.

You will also need some treats your dog really likes; preferably some with a strong smell. Swiss cheese, turkey hot dogs, or liver work well.

To Teach the Game to Your Dog:

Invert one pot and place a treat under it. Tell your dog,

"Sweetie, find it," and tap the pot to attract your dog's attention.

When your dog sniffs the hole in the pot, praise him and tip the pot so he can find and eat the treat. Repeat a few times and then take a break.

At your next training session, repeat as above a couple of times and then when you ask your dog to find it, don't tap the top of the pot. When your dog shows you in some way that he smells the treat (by nosing the pot, licking it, or pushing it with his nose) encourage him to get the treat himself. He may paw it or tip it over with his nose. Praise him and let him get the treat. Repeat a few times and take a break.

At your next training session, set out two pots but only use one for treats. Vary the position of the one with the treat and encourage your dog to search for the treat, "Sweetie, find it! Yeah, good!"

When your dog can search two pots and find the right one, then set out the third pot. Again, just put a treat under one and shuffle the pots every time so your dog has to search for the treat. Praise him when he finds it.

Keep your training sessions short; just a half dozen searches each time. You want to build excitement so your dog wants to play games with you and you can do that by using great treats, giving lots of praise, and stopping the game before he gets tired or bored.

Variations on the Game

When your dog has learned the game well and finds the

Tug-of-War

Dogs like playing tug-of-war, but it is important not to let the game get out of hand. Because dogs are, by instinct, hunters, the game reminds them of catching prey. For that reason, stop playing when the game starts to appear too serious. If your dog starts to take winning seriously, it's time to play a less competitive game. And don't ever show off your dog's grip by picking him up with the rope in his teeth.

You should also be careful in choosing the material you should use. Don't use your socks or other clothing, even if your dog is still a puppy. He'll associate your clothing with the game and you may wind up with lots of holes in your socks. The material shouldn't shred easily, either, because your dog could swallow pieces. Your best bet is to pick a rope that has been specifically designed as a dog toy.

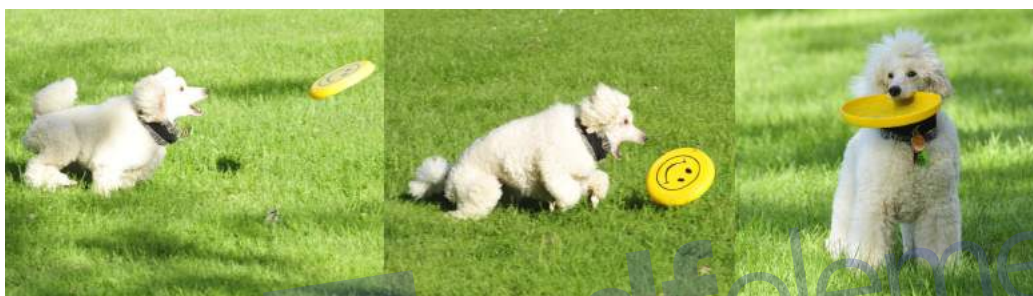
Flower Pot Scenting Game

Written by: [Liz Palika](#) Edited by: [Dr. Debra Primovic](#) - DVM
Published: February 19, 2015 _ Last Modified: April 22, 2015

The flower pot scenting game is an easy one to teach your dog. It is inexpensive, easy to set up, and your dog will love playing it. You can teach dogs of any age - from puppies to geriatric dogs - to play this game. Because

treat every time, add some variations to the game. Add another identical pot or two (or three). Add them one at a time as you did when initially teaching the game. Shuffling five or six pots with a treat under just one makes the game more exciting and amazing.

You can also play the game with paper cups; just poke a hole in the bottom of each cup. Re-teach the game using the training steps above. However, because your dog already knows the game, it won't take long for him to relearn it with the paper cups. If your dog is really excited about this game and is good at it, then create a harder challenge for him. Find six flower pots of a variety of sizes, shapes and different types (clay, plastic, and ceramic). Re-teach the game by following the original training steps. Cheer him on as he masters the game, "Yeah, good dog! Woo hoo!"



Teaching Your Dog to Love Frisbee

Written by: Lisa Colangelo

Published: September 21, 2014

Last Modified: December 10, 2014

Teaching your dog to play with a Frisbee can be a great source of exercise and fun for you and your pet. Bob Evans, Paul West and Ping Latvong are three of the world's top dog Frisbee trainers, and they competed in this year's Alpo Canine Frisbee World Championship with their dogs – Nick, Super Sport and Sassy. Here's how they say you can get your pet into the sport.

Preliminary Considerations:

- Visit your veterinarian for a thorough check-up before you start because canine Frisbee can be vigorous exercise for your dog.
- Any healthy, active dog can learn to catch a Frisbee. Many champions are border collies, but mixed breeds and dogs rescued from shelters have become some of the most successful Frisbee dogs.
- Let your dog warm up before any workout and always have fresh water on hand.
- **Practice on a grassy area** and check for broken glass and holes first. Avoid asphalt, concrete and gravel, which can be hard on your dog's joints and paws.

- Give lots of praise and never yell at your dog if he is unable to catch the Frisbee.
- Keep training sessions short. You should stop before your dog gets bored so the experience is always fun.
- Don't let your dog chew on the Frisbee.

Getting Ready

Get your dog comfortable with the Frisbee by using it as a food or water bowl. This technique works with puppies and adult dogs. It allows them to associate the disc with something positive.

- Slowly substitute the Frisbee for another toy that your dog likes, adding to your dog's comfort level with the disc.

Ready, Set, Go

Start off by sliding the Frisbee back and forth on the ground in front of your dog while encouraging him to get the disc. Let him take it out of your hand.

- Move on to rolling the Frisbee on the ground and encouraging your dog to chase it. After he has the Frisbee, don't pull it from him. Offer praise.
 - When your dog is interested in playing with the Frisbee, toss it and let him chase. Keep the tosses short so the Frisbee stays clearly visible as an attractive object to retrieve.
 - At this point, be careful not to throw the Frisbee directly at your dog, so he is not afraid of the disc.
 - Stand about three feet in front of your dog, gently toss the Frisbee in the air and say "Catch." If he catches it, give him lots of praise. If he doesn't catch it, pick it up off the ground yourself. The catch should be the reward.
 - Stand to the right of your dog (if you are right-handed) and toss the Frisbee in front of you, the same short distance. This will teach the dog to move to the Frisbee instead of waiting for it to come to him.
 - Once your dog is comfortable catching short throws, make your tosses longer.
 - Get your dog used to retrieving the Frisbee by attaching a long leash to his collar. If he does not return the Frisbee to you, give the leash a gentle tug.
 - Do not ask your dog to leap until he has physically matured (1 or 2 years). Hold the disc above his head and say "Jump" and let go when he grabs the disc.
- A great canine Frisbee on the market is the called hyper-flite. It's made from a special puncture-resistant material that will withstand all the punishment your dog's teeth can dish out. Dogs destroy other discs after just a few throws, but this disc will really last.

Saving your pet with CPR

With pets increasingly being treated like a member of the family, many owners are learning emergency techniques like CPR to keep their pet alive before bringing it to a veterinarian.

If there is no breathing and no pulse, begin CPR immediately.

Areas to check for pulse



Check for breathing and pulse

Check pulse using middle and index finger below the wrist, inner thigh (femoral artery), below the ankle or where left elbow touches the chest.

Look for other warning signs

- Gums and lips will appear gray-colored.
- Pupils will be dilated and not responsive to light.

Gums

Pupils

If not breathing, give breath to animal

Cats and small dogs

Place your mouth over its nose and mouth to blow air in.

Medium-large dogs

Place your mouth over its nose to blow air in.

Heimlich maneuver

If breath won't go in, airway may be blocked. Turn dog upside down, with its back against your chest. Wrap your arms around the dog and clasp your hands together just below its rib cage (since you're holding the dog upside down, it's above the rib cage, in the abdomen). Using both arms, give five sharp thrusts to the abdomen. Then check its mouth or airway for the object. If you see it, remove it and give two more rescue breaths.

Start compressions if no pulse

Lay animal on right side and place hand over ribs where its elbow touches the chest. Begin compressions. Do not give compressions if dog has pulse.

Repeat procedure

- Check pulse after 1 minute and then every few minutes.

- Continue giving CPR until the animal has a pulse and is breathing.

- Stop CPR after 20 minutes.

Animal size	Compress chest	Compressions per breath of air
Cat/small dog (Under 30 lbs.)	1/2-1 inch	5
Medium-large dog (30-90 lbs.)	1-3 inches	5
Giant dog (over 90 lbs.)	1-3 inches	10



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Dr. Dodds is founder of **HEMOPET**, the non-profit animal blood bank, and a friend to animal lovers the world over. **HEMOPET** is where we can have blood tests to check for vaccine antibodies instead of unnecessarily re-vaccinating our companion animals. She has written excellent articles that everyone, especially our veterinarians, should read.

Practical Understanding of Thyroid Diseases and Their Management

INTRODUCTION

Hypothyroidism is the most common endocrine disorder of canines, and the second most common endocrine disorder of older felines, after diabetes. At least 80% of canine cases result from autoimmune (lymphocytic) thyroiditis). The heritable nature of this disorder poses significant genetic implications for breeding stock. Thus, accurate diagnosis of the early compensatory stages of canine autoimmune thyroiditis leading up to hypothyroidism affords important genetic and clinical options for prompt intervention and case management.

Although thyroid dysfunction is the most frequently recognized endocrine disorder of pet animals, it is often difficult to make a definitive diagnosis. As the thyroid gland regulates metabolism of all body cellular functions, reduced thyroid function can produce a wide range of clinical manifestations. Many clinical signs mimic those of other causes and so recognition of the condition and interpretation of thyroid function tests can be problematic (Table 1).

In cats, it has recently been established that feline hyperthyroidism in readily induced, especially in geriatric cats, by feeding commercial pet foods, treats and snacks containing excessive amounts of iodine. This finding has lead to a major change in the iodine formulations of feline commercial pet foods. Hypothyroidism, while rare in cats, can occur in adult cats and a familial hypothyroidism has been described in neonatal Siamese kittens.

Baseline Thyroid Profiles

A complete baseline thyroid profile is measured and typically includes total T4, total T3, free T4, free T3, T3AA and T4AA, and can include cTSH and/or TgAA. The TgAA

assay is especially important in screening breeding stock for heritable autoimmune thyroid disease.

The normal reference ranges for thyroid analytes of healthy adult animals tend to be similar for most breeds of companion animals. Exceptions are the sighthound and giant breeds of dogs which have lower basal levels. Typical thyroid levels for healthy sighthounds, such as retired racing greyhounds, are at or just below the established laboratory reference ranges, whereas healthy giant breeds have optimal levels around the midpoint of these ranges. Similarly, because young animals are still growing and adolescents are maturing, optimal thyroid levels are expected to be in the upper half of the references ranges. For geriatric animals, basal metabolism is usually slowing down, and so optimal thyroid levels are likely to be closer to midrange or even slightly lower.

All animals are not the same:

- Puppies have higher basal thyroid levels than adults
- Geriatrics have lower basal thyroid levels than adults
- Large/giant breeds have lower basal thyroid levels
- Sighthounds have much lower basal thyroid levels.

Dietary-Induced Hyperthyroidism in Dogs and Cats

Recent studies have documented iatrogenic hyperthyroidism in **dogs** fed the gullet or throat portion of raw red meat (usually beef or lamb). The patient may be relatively asymptomatic or even found to exhibit primary anestrus, with the diagnosis made upon finding significantly high thyroid basal levels without clinical evidence of a thyroid mass in

Table 1.

CLINICAL SIGNS OF CANINE HYPOTHYROIDISM**ALTERATIONS IN CELLULAR METABOLISM**

Lethargy	Cold Intolerance
Mental Dullness	Weight Gain or Weight Loss
Exercise Intolerance	Mood Swings
Neurologic Signs	Hyperexcitability
Polyneuropathy	Stunted Growth
Seizures	Chronic Infections

the neck or chest. Questioning of the pet owners then revealed the raw meat diet (owners may not be aware of the portion of the carcass included in the fed product). Excessive amount of thyroid hormone have been measured not only in the meat source, but also in the juices from the meat. Removing the meat from the diet resolves the hyperthyroidism in about 4-6 weeks, and basal thyroid levels return to normal.

With respect to **cats**, the rising incidence of hyperthyroidism in older cats since first identified in the mid-1970s, led to much speculation about the true cause(s). Eventually, research focused on the commercial diets fed to the affected cats; most were found to eat foods containing more than the NRC recommended amounts of iodine. Once the iodine content of the foods was lowered, and even fed in less than the recommended

amounts to affected cats, their hyperthyroidism resolved. A prescription diet was produced (Hill's y/d) that contained less iodine

for feeding affected cats. Today, a properly balanced amount of iodine is present in commercial pet foods, treats and snacks for both cats and dogs.

Regarding the **iodine content** of commercial pet foods, iodine excess causes alterations in thyroid activity, blocking both its

characteristic functions and cell proliferation.

Feeding excessive amounts of iodine in foods and supplements (kelp, seaweed) reduces thyroid function in dogs and increases thyroid activity in older cats. This contributes to the rising prevalence of hypothyroidism in young dogs, and hyperthyroidism in older cats. Iodine also increases auto-antigenic potency of thyroglobulin leading to induction of autoimmune thyroiditis.

Genetic Screening and Diagnostic Testing for Canine Thyroid Disease

Most cases of thyroiditis have elevated serum TgAA levels, whereas only about 20-40% of cases have elevated circulating T3 and/or T4 AA. Thus, the presence of elevated T3 and/or T4 AA confirms a diagnosis of autoimmune thyroiditis but underestimates its prevalence, as negative (non-elevated) autoantibody levels do not rule out thyroiditis. Measuring TgAA levels also permits early recognition of the disorder, and facilitates genetic counseling.

Affected dogs should not be used for breeding.

The commercial TgAA test can give false negative results if the dog has received thyroid supplement within the previous 90 days, thereby allowing unscrupulous owners to test dogs while on treatment to assert their normalcy, or to obtain certification with health registries such as the OFA Thyroid Registry. False negative TgAA results also can occur in about 8% of dogs verified to have high T3AA and/or T4AA. Furthermore, false positive TgAA results may be obtained if the dog has been vaccinated within the previous 30-45 days, or in some cases of non-thyroidal illness. Vaccination of pet and research dogs with polyvalent vaccines containing rabies virus or rabies vaccine alone was recently shown to induce production of antithyroglobulin autoantibodies, a provocative and important finding with

implications for the subsequent development of hypothyroidism.

A population study of 287,948 dogs published by the MSU Animal Health Diagnostic Laboratory showed that: Circulating thyroid hormone autoantibodies (T3AA and/or T4AA) were found in 18,135 of these dogs (6.3%). The 10 breeds with the highest prevalence of thyroid AA from their study were: Pointer, English Setter, English Pointer, Skye Terrier, German Wirehaired Pointer, Old English Sheepdog, Boxer, Maltese, Kuvasz, and Petit Basset Griffon Vendeen.

Feeding excessive amounts of iodine in foods and supplements (kelp, seaweed) reduces thyroid function in dogs and increases thyroid activity in older cats. This contributes to the rising prevalence of hypothyroidism in young dogs, and hyperthyroidism in older cats. Iodine also increases auto-antigenic potency of thyroglobulin leading to induction of autoimmune thyroiditis.

Prevalence was associated with body weight and was highest in dogs 2-4 years old. Females were significantly more likely to have thyroid AA than males.

A bitch with circulating thyroid AA has the potential to pass these along to the puppies transplacentally as well as via the colostrum. Furthermore, any dog having thyroid AA may eventually develop clinical symptoms of thyroid disease and/or be susceptible to other autoimmune diseases. Thyroid screening is thus very important for selecting potential breeding stock as well as for clinical diagnosis.

Thyroid testing for genetic screening purposes is less likely to be meaningful before puberty. Screening is initiated, therefore, once healthy dogs and bitches have reached sexual maturity (between 10-14 months in males and during the first anestrus period for females following their maiden heat). As the female sexual cycle is quiescent during anestrus, any influence of sex hormones on baseline thyroid function will be minimized. This period generally begins 12 weeks from the onset of the previous heat and lasts one month or longer. The interpretation of results from baseline thyroid profiles in intact females will be more reliable when they are tested in anestrus. In fact, genetic screening of intact females for other disorders such as von Willebrand disease (vWD), hip dysplasia, and wellness or reproductive checkups (vaginal cultures, hormone testing) is best scheduled during anestrus. Once the initial thyroid profile is obtained, dogs and bitches should be rechecked on an annual basis to assess their thyroid function and overall health. Generation of annual test results provides comparisons that permit early recognition of developing thyroid dysfunction. This allows for early treatment to avoid the appearance or advancement of clinical signs

associated with hypothyroidism.

Canine autoimmune thyroid disease is very similar to Hashimoto's thyroiditis of humans, which has been shown to be associated with human major histocompatibility complex (MHC) tissue types. A similar association with canine MHC genes in hypothyroid dogs has recently been reported in Doberman Pinschers, English Setters and Rhodesian Ridgebacks, who share a rare dog leukocyte antigen (DLA) class II haplotype which contains a unique DLA-DQA1*00101 genetic determinant. While the presence of this determinant doubles the risk of a dog developing hypothyroidism, it was not found in boxers affected with thyroiditis, nor was it found in the Shih Tzu, Yorkshire Terrier, or Siberian Husky, although more studies are needed in these and other susceptible breeds to establish their true status with respect to this marker DLA antigen. This exciting finding of a common genetic determinant associated with thyroid disease in several breeds hopefully will lead to development of a genetic marker test to identify affected breeding stock and allow for selective breeding to reduce disease incidence in pure-bred dogs.

Diagnostic Utility of Canine TSH Assay

Unlike human thyroid function, where the thyroid stimulating hormone (TSH) level gives a diagnostic prediction of primary hypothyroidism with 95% accuracy, the parallel test in dogs (cTSH) results in only ~70% accuracy, because the dog has a more active alternate thyroid regulatory pathway through growth hormone. In addition to this high incidence of false-negative results, cTSH levels appear to be falsely-high in 10-20% of dogs with normal thyroid function. Some of these dogs have other non-thyroidal illnesses; however, falsely high serum cTSH values have even been reported in clinically normal dogs that had completely normal total T4 and free T4 concentrations.

The high prevalence of false-negative and false-positive test results make this assay unreliable to use as a sole diagnostic test for dogs with suspected hypothyroidism. Further, this assay requires a species-specific reagent as human TSH assays do not work in dogs (or cats). There is no commercial feline TSH assay, and so the cTSH is used.

Hyperthyroid cats predictably have very low cTSH concentrations, whereas high cTSH values have been reported in cats with naturally occurring hypothyroidism, as well as cats with iatrogenic hypothyroidism, i.e., secondary to methimazole or radioiodine-131 treatment.

Normal cats and cats with non-thyroidal illness gener-

NEUROMUSCULAR PROBLEMS	
Weakness	Knuckling or Dragging Feet
Stiffness	Muscle wasting
Laryngeal Paralysis	Megaesophagus
Facial Paralysis	Head Tilt
"Tragic" Expression	Drooping Eyelids
Incontinence	Ruptured Cruciate Ligament

DERMATOLOGIC DISEASES	
Dry, Scaly Skin And Dandruff	Chronic Offensive Skin Odor
Coarse, Dull Coat	Bilaterally Symmetrical Hair Loss
"Rat Tail"; "Puppy Coat"	Seborrhea with Greasy Skin
Hyperpigmentation	Seborrhea with Dry Skin
Pyoderma Or Skin Infections	Myxedema

Dog, Nova Scotia Duck Tolling Retriever, and Leonberger, although any breed or mixed breed can be affected. Our study cohort of 162 cases of autoimmune blood and endocrine disorders in Old English Sheepdogs (1980-1989) included 115 AIHA and/or ITP, 99 thyroid disease, 23 Addison's disease, 7 vaccine reactions, 3 SLE, 2 diabetes, 1 rheumatoid arthritis and 1 hypoparathyroidism. The group comprised 110 females (15 spayed) and 52 males (3 neutered). Seven of the most recent 103 cases had two or more endocrine disorders, and 101 of the 108 cases where pedigrees were available showed a familial relationship going back several generations. Data from surveying the Bearded Collie breed reported 55 hypothyroid, 17 Addison's disease, and 31 polyglandular autoimmunity (5 were hypothyroid).

ally maintain normal cTSH values. Therefore, finding a low total T4 or free T4 in combination with a high cTSH concentration greatly improves the diagnostic sensitivity and precision for identifying hypothyroidism in cats as well as dogs.

POLYGLANDULAR AUTOIMMUNITY

Individuals genetically susceptible to autoimmune thyroid disease may also become more susceptible to immune-mediated diseases affecting other target tissues and organs, especially the bone marrow, liver, adrenal gland, pancreas, skin, kidney, joints, bowel, and central nervous system. The resulting "polyglandular autoimmune syndrome" of humans is becoming more commonly recognized in the dog, and probably occurs in other species as well. The syndrome tends to run in families and is believed to have an inherited basis. Multiple endocrine glands and nonendocrine systems become involved in a systemic immune-mediated process. This multiple endocrinopathy often occurs in patients with underlying autoimmune thyroid disease (hypo- or hyperthyroidism) and concurrent Addison's disease, diabetes, reproductive gonadal failure, skin disease and alopecia, and malabsorption syndrome. The most common nonendocrinologic autoimmune disorders associated with this syndrome are autoimmune hemolytic anemia (AIHA), idiopathic thrombocytopenic purpura (ITP), chronic active hepatitis, and immune-complex glomerulonephritis (systemic lupus erythematosus; SLE).

The most commonly recognized polyglandular endocrinopathy of dogs is Schmidt's syndrome (thyroiditis and Addison's disease). Examples of breeds genetically predisposed to this disorder include the Standard Poodle, Old English Sheepdog, Bearded Collie, Portuguese Water

ABERRANT BEHAVIOR AND THYROID DYSFUNCTION

The principal reason for pet euthanasia stems not from disease, but undesirable behavior. While this abnormal behavior can have a variety of medical causes, it also can reflect underlying problems of a psychological nature.

An association between behavioral and psychologic changes and thyroid dysfunction has been recognized in humans since the 19th century. In a recent study, 66% of people with attention deficit-hyperactivity disorder were found to be hypothyroid, and supplementing their thyroid levels was largely curative. Furthermore, an association has recently been established between aberrant behavior and thyroid dysfunction in the dog, and has been noticed in cats with hyperthyroidism. Typical clinical signs include unprovoked aggression towards other animals and/or people, sudden onset of seizure disorder in adulthood, disorientation, moodiness, erratic temperament, periods of hyperactivity, hypoattentiveness, depression, fearfulness and phobias, anxiety, submissiveness, passivity, compulsiveness, and irritability. After episodes, most of the animals appeared to come out of a trance like state, and were unaware of their bizarre behavior.

The mechanism whereby diminished thyroid function affects behavior is unclear. Hypothyroid patients have reduced cortisol clearance, as well as suppressed TSH output and lowered production of thyroid hormones. Constantly elevated levels of circulating cortisol mimic the

condition of an animal in a constant state of stress. In people and seemingly in dogs, mental function is impaired and the animal is likely to respond to stress in a stereotypical rather than reasoned fashion. Chronic stress in humans has been implicated in the pathogenesis of affective disorders such as depression. Major depression has been shown in imaging studies to produce changes in neural activity or volume in areas of the brain which regulate aggressive and other behaviors. Dopamine and serotonin receptors have been clearly demonstrated to be involved in aggressive pathways in the CNS. Hypothyroid rats have increased turnover of serotonin and dopamine receptors, and increased sensitivity to ambient neurotransmitter levels.

Investigators in recent years have noted the sudden onset of behavioral changes in dogs around the time of puberty or as young adults. Most of the dogs have been purebreds or crossbreeds, with an apparent predilection for certain breeds. For a significant proportion of these animals, neutering does not alter the symptoms and in some cases the behaviors intensify. The seasonal effects of allergies to inhalants and ectoparasites such as fleas and ticks, followed by the onset of skin and coat disorders including pyoderma, allergic dermatitis, alopecia, and intense itching, have also been linked to changes in behavior.

Many of these dogs belong to a certain group of breeds or dog families susceptible to a variety of immune problems and allergies (e.g. Golden Retriever, Akita, Rottweiler, Doberman Pinscher, English Springer Spaniel, Shetland Sheepdog, and German Shepherd Dog). The clinical signs in these animals, before they show the sudden onset of behavioral aggression, can include minor problems such as inattentiveness, fearfulness, seasonal allergies, skin and coat disorders, and intense itching. These may be early subtle signs of thyroid dysfunction, with no other typical signs of thyroid disease being manifested.

The typical history starts out with a quite, well-mannered and sweet-natured puppy or young adult dog. The animal was outgoing, attended training classes for obedience, working, or dog show events, and came from a reputable breeder whose kennel has had no prior history of producing animals with behavioral problems. At the onset of puberty or thereafter, however, sudden changes in personality are observed. Typical signs can be incessant whining, nervousness, schizoid behavior, fear in the presence of strangers, hyperventilating and undue sweating, disorientation, and failure to be attentive. This can progress to sudden unprovoked aggressiveness in unfamiliar situations with animals, people and especially with chil-

REPRODUCTIVE DISORDERS	
Infertility	Prolonged Interestrus Interval
Lack of Libido	Absence of Heat Cycles
Testicular Atrophy	Silent Heats
Hypospermia	Pseudopregnancy
Aspermia	Weak, Dying or Still-born Pups

dren.

Another group of dogs **show seizure or seizure-like disorders** of sudden onset that can occur at any time from puberty to mid-life. These dogs appear perfectly healthy outwardly, have normal hair coats and energy, but suddenly seizure for no apparent reason. The seizures are often spaced several weeks to months apart, may coincide with the full moon, and can appear in brief clusters. In some cases the animals become aggressive and attack those around them shortly before or after having one of the seizures. Two recent cases involved young dogs referred for sudden onset seizure disorder shortly after puberty. Both dogs were found to have early onset autoimmune thyroiditis, which was clinically responsive to thyroid supplementation, to the extent that anticonvulsant medications could be gradually withdrawn. The numbers of animals showing various types of aberrant behavior are increasing in frequency over the last decade.

In dogs with aberrant aggression, a large collaborative study between our group and Dr. Dodman and colleagues at Tufts University School of Veterinary Medicine has shown a favorable response to thyroid replacement therapy within the first week of treatment, whereas it took about three weeks to correct their metabolic deficit. Dramatic reversal of behavior with resumption of previous problems has occurred in some cases if only a single dose is missed. A similar pattern of aggression responsive to thyroid replacement has been reported in a horse.

Results of complete thyroid diagnostic profiling were analyzed on the first 634 canine cases of aberrant behavior, compiled by this author in collaboration with Drs. Nicholas Dodman, Linda Aronson, and Jean DeNapoli of Tufts University School of Veterinary Medicine, North Grafton, MA. Ninety percent (568 dogs) were purebreds and 10% were mixed

CARDIAC ABNORMALITIES	
Slow Heart Rate (Bradycardia)	Cardiac Arrhythmias
Cardiomyopathy	

breeds. There was no sex predilection found in this case cohort, whether or not the animals were intact or neutered. Sixty-three percent of the dogs had thyroid dysfunction as judged by finding 3 or more abnormal results on the comprehensive thyroid profile. The major categories of aberrant behavior were aggression (40% of cases), seizures (30%), fearfulness (9%), and hyperactivity (7%); some dogs exhibited more than one of these behaviors. Within these 4 categories, thyroid dysfunction was found in 62% of the aggressive dogs, 77% of seizing dogs, 47% of fearful dogs, and 31% of hyperactive dogs.

Outcomes of treatment intervention with standard twice daily doses of thyroid replacement were evaluated in 95 cases, and showed a significant behavioral improvement in 61% of the dogs. Of these, 58 dogs had greater than 50% improvement in their behavior as judged by a predefined 6-point subjective scale (34 were improved > 75%), and another 23 dogs had >25 but <50% improvement. Only 10 dogs experienced no appreciable change, and 2 dogs had a worsening of their behavior. When compared to 20 cases of dominance aggression treated with conventional behavior or other habit modification over the same time period, only 11 dogs improved more than 25%, and of the remaining 9 cases, 3 failed to improve and 3 were euthanized or placed in another home. These initial results are so promising that complete thyroid diagnostic profiling and treatment with thyroid supplement, where indicated, is warranted for all cases presenting with aberrant behavior.

GASTROINTESTINAL DISORDERS	
Constipation	Diarrhea
Inappetence Or Picky Eater	Vomiting
Inflammatory Bowel Disease	Flatulence

Our ongoing study now includes over 1500 cases of dogs presented to veterinary clinics for aberrant behavior. The first 499 cases have been analyzed independently by a neural network correlative statistical program. Results showed a significant relationship between thyroid dys-

function and seizure disorder, and thyroid dysfunction and dog-to-human aggression.

Collectively, these findings confirm the importance of including a complete thyroid antibody profile as part of the laboratory and clinical work up of any behavioral case.

HEMATOLOGIC DISORDERS	
Bleeding	Bone Marrow Failure
Low Red Blood Cells (Anemia), White Blood Cells, Platelets	

GASTROINTESTINAL DISORDERS	
Constipation	Inappetence Or Picky Eater
Diarrhea	Vomiting
Flatulence	Inflammatory Bowel Disease

OCULAR DISEASES	
Corneal Lipid Deposits	Corneal Ulceration
Uveitis	Keratoconjunctivitis Sicca Or "Dry Eye"
Infections of Eyelid Glands	Vogt-Koyanagi-Harada Syndrome (Meibomian gland)

Other Associated Disorders

- IgA deficiency
- Loss of smell (dysosmia)
- Loss of taste
- Glycosuria
- Other endocrinopathies
- Chronic or reactive hepatitis
- Adrenal
- Pancreatic
- Parathyroid

MANAGEMENT & THERAPY

Dogs

Remember that **thyroxine binds to calcium** and soy and so this **drug should be given apart from meals** (1 hr before or 3 hrs after), regardless of what the product label says.

While physicians are taught about the binding behavior of this drug to alert their patients, veterinarians traditionally have never been told about it.

Dogs testing positive for heritable autoimmune thyroiditis should be treated with thyroxine **twice daily** immediately, even if their basal thyroid levels are still normal (i.e. in "compensative autoimmune thyroiditis"). This is because feedback inhibition of TSH output from the pituitary gland shuts off stimulation of thyroid gland receptors, and stops thyroid autoantibody production. It typically takes ~ 5-7 months or longer of therapy, but thyroid autoantibody levels should gradually decline until they are normal (negative). However, therapy with thyroxine is needed lifelong to prevent the reoccurrence of autoantibody production.

Because of the heritable nature of this trait, as discussed above, dogs affected with thyroiditis, even if still asymptomatic should not be used for breeding purposes.

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How a Wolf Transformed a Whole Town



Despite their incredible beauty and their obvious similarities with our considerably tamer canine companions, everyone knows not to play with wolves. So when wildlife photographer Nick Jans and his Labrador encountered a wild wolf behind their home, adrenaline

started pumping through them both.



When the wolf approached the Labrador, Nick could only stand helplessly by and watch. But what he didn't know then, on that cold winter day of 2003 was that that encounter was the beginning of a relationship that defied all logic – and fundamentally transformed an entire community. During the winter of 2003, a jet-black wolf showed up on the edge of suburban Juneau, Alaska. But this wolf didn't bear his teeth and growl aggressively. Instead, it seemed to long for companionship. Wildlife

photographer Nick Jans was on his back porch when he saw the wolf for the first time. Despite the danger, Nick's Labrador went to meet the visitor.

Nick, who had photographed and tracked wolves for years, immediately knew that the wolf was wild. So he was shocked when his Labrador suddenly started to play with him. He hurriedly grabbed his camera, and began to capture the unexpected mo-

ment.

After a while, the wolf returned into the wilderness, but it wasn't long before he returned. The wolf would come to Nick's house to greet him often and sometimes it even

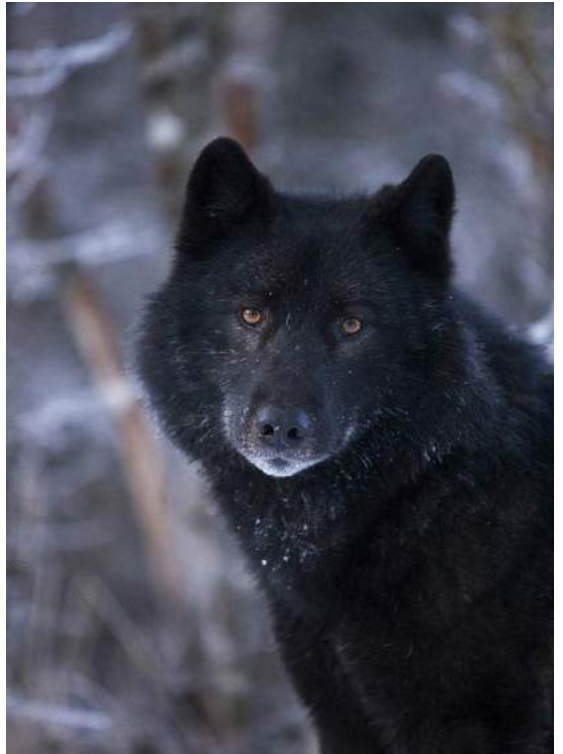
followed Nick when the photographer went skiing. And the wolf was always gentle, says Nick.

"This wolf was downright relaxed and tolerant from the start, as if he had dropped out of the sky like a unicorn," the photographer told National Geographic.

After a while, the wolf returned into the wilderness, but it wasn't long before he returned. The wolf would come to Nick's house to greet him often and sometimes it even followed Nick when the photographer went skiing. And the wolf was always gentle, says Nick.

"This wolf was downright relaxed and tolerant from the start, as if he had dropped out of a kennel.

Years passed and Nick spent much time documenting the wolf. He eventually named



*I thought since they
say that all dogs are
descendants of
WOLFS...
It is a nice story to
share !*

the wolf Romeo. At first, many of the small town's residents didn't trust Romeo, but they soon realized that he was a wolf unlike any other. Romeo soon became known by everyone in the area. People took their dogs to Mendenhall Glacier Park so their dogs could meet Romeo.

There were never any serious incidents.

Not only did Romeo make plenty of dog friends in and around Juneau, he even sometimes interacted and played with humans.

"The wolf would bring out toys that he'd stashed. One was a Styrofoam float. Romeo would pick it up and bring it to [my friend] Harry to throw. He clearly understood the

same sort of behaviors that we see in dogs," Nick said.



says.

Shortly after Romeo passed away, the city of Juneau commemorated the wolf, creating a special plaque to honor him. The plaque is installed by the lake he used to frequent.

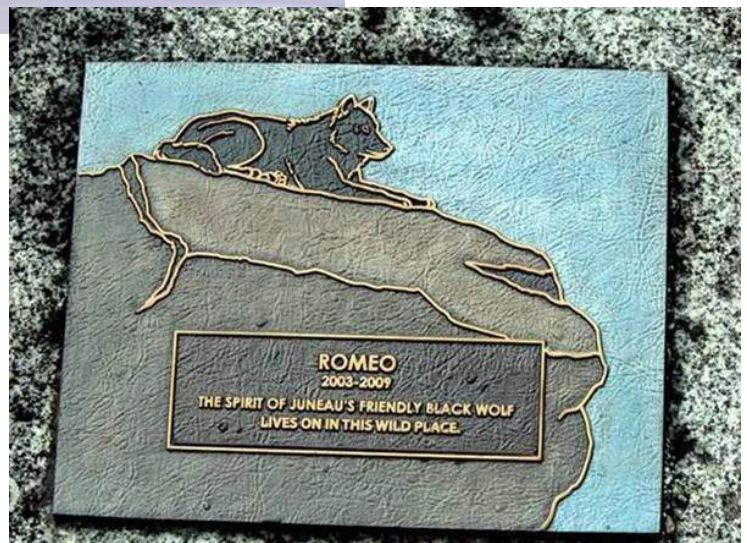
What a beautiful touch! That three such different species were able to live alongside peacefully and in complete harmony is so inspiring. It really shows you how wonderful the world and nature can be!

"The amazing thing was Romeo's understanding. It wasn't just our understanding and tolerance. It was the combination of his and ours and the dogs. We were these three species working out how to get along harmoniously. And we did," said Nick.

Romeo lived on the outskirts of Juneau for six years. He became an ambassador for nature and a powerful symbol for the entire community.

After six years, Romeo's time in the community ended. He passed away in 2010, but residents will never forget how he transformed the village.

"The average life span of a wolf in the wild is three years. Romeo was already full grown when he showed up, and then he lived among us for six-plus more years. So he was at least eight years old at the time of his death," Nick



Xylitol: Urgent Food Poisoning Alert for All Dog Owners

By Dr. Becker

Recently a 3-year-old Pug named Bruce in Overland Park, Kansas discovered a tin of sugar-free Mentos and helped himself. Within a half-hour, Bruce was lethargic. Fortunately, his owner connected the dots between the Mentos and Bruce's rapidly deteriorating condition. After calling the veterinarian's office, as he picked Bruce up to rush him out to the car, the dog went limp. Once at the vet's office, he had a seizure. The mints Bruce had eaten contained [xylitol](#), a sweetener that is highly toxic to dogs. It's a sugar alcohol extracted from corn and corn fiber, birch, raspberries and plums.

Xylitol is used to sweeten a wide range of products, including sugar-free gum and mints, nicotine gum, chewable vitamins, certain prescription drugs, dental hygiene products and baked goods.

Xylitol can also be purchased in granulated form as a sugar replacement to sweeten beverages, cereals and other foods.

Fortunately for Bruce, the veterinary staff quickly treated him with glucose water and monitored him closely. He survived the initial crisis, but they don't know yet if there has been permanent damage to his liver.

The Number of Products Containing Xylitol Is Exploding

Xylitol poisoning in dogs is reaching epidemic proportions according to some sources.

The sweetener is being used in an ever growing list of products because it's as sweet as sucrose, but with only two-thirds the calories of sugar.

It's less expensive than other sugar substitutes, tastes better and causes little if any insulin release in humans. Just a few years ago, xylitol could be found in less than a hundred products in the U.S., primarily limited to sugar-free gums, candy and foods. Today it can be found in a wide range of health and beauty products, food products, over-the-counter drugs and supplements and prescription medications.

Until fairly recently, xylitol was found primarily in products not normally given to dogs. Poisonings were usually the result of dogs like Bruce sampling human foods, candy or gum on the sly.

However, xylitol is now being found in certain peanut and nut butters. As most dog guardians know, our pets love these creamy butters. Many people use a dab of peanut or nut butter to hide pills or supplements they give to their dog, or they fill a Kong with the gooey stuff as a special treat.

Dr. Jason Nicholas, who runs Preventive Vet, has compiled a list of nut butters containing xylitol:

✓ Go Nuts, Co

Almond Butter

- Almond Butter - Chocolate Almond Butter
- Peanut Butter - Dark Chocolate Mint
- Peanut Butter - Natural Chocolate Flavor
- Peanut Butter - Natural Flavor
- Peanut Butter - Organic Maple Flavor

✓ Krush Nutrition

- Nutty By Nature Peanut Butter Brownie Batter
- Nutty By Nature Peanut Butter Cookie Dough
- Nutty By Nature Peanut Butter Snickerdoodle Cookie
- Nutty By Nature Peanut Butter Thick & Creamy

✓ Nuts 'N More®

- Almond Spread - Almond Butter
- High Protein + Almond Spread - Almond Butter
- High Protein + Almond Spread - Chocolate Almond
- High Protein + Almond Spread - Cinnamon Raisin
- High Protein + Peanut Spread - Chocolate Peanut
- High Protein + Peanut Spread - Peanut Butter Flavor
- High Protein + Peanut Spread - Pumpkin Spice
- High Protein + Peanut Spread - Toffee Crunch
- Peanut & Protein Spread - Sesame Cranbutter
- Peanut Spread - Peanut Butter Flavor
- Peanut Spread - Toffee Crunch

✓ P28 Foods

- High Protein Spread - Almond Butter
- High Protein Spread - Banana Raisin
- High Protein Spread - Peanut Spread
- High Protein Spread - Signature Blend

✓ Protein Plus PB

- Hank's Protein Plus - Almond Butter
- Hank's Protein Plus - Banana
- Hank's Protein Plus - Caramel Pretzel
- Hank's Protein Plus - Chocolate Chip
- Hank's Protein Plus - Coconut
- Hank's Protein Plus - Honey Maple
- Hank's Protein Plus - Plain
- Hank's Protein Plus - Snickerdoodle

These are specialty nut butters sold primarily in nutrition stores and online, but the fact that xylitol is now being used in these products is a heads-up for dog parents everywhere of the importance of reading ingredient labels. It's probably just a matter of time before more mainstream peanut and nut butters also contain xylitol. As Dr. Ahna Brutlag, associate director of veterinary services for [Pet Poison Helpline](#) explains the seriousness of the situation:

"First, dogs fed straight peanut butter as a treat or fed treats

baked with xylitol-containing peanut butter may certainly be at risk for harm.

Second, a dog that nabs the entire jar of xylitol-containing peanut butter and happily gorges on his or her treasure without anyone knowing could quickly become extremely ill. If this occurred during the day while the owners were not home, it's possible the dog could die before people returned."²

You should be aware of any product in your home containing xylitol, and especially anything you might consider offering to your dog.

Xylitol-Related Dog Poisonings More Than Doubled in 7 Years

Each year as the number of products containing xylitol expands, sadly, so do the cases of poisoning in dogs. In 2007, the first year the ASPCA Animal Poison Control Center (ASPCA-APCC) started tracking cases of xylitol toxicity in dogs, the Center received 1,764 calls. In 2014, they handled 3,727 xylitol calls.³

That's over a 200 percent increase in just 7 years, and includes only the cases called into the ASPCA-APCC. There are other animal poison control centers that receive calls, as well as unreported cases of xylitol-related illnesses and deaths.

The Toxicity of Xylitol Depends on the Species and Dose

Although xylitol is safe for humans, the sweetener's effect varies by species. In people, rhesus monkeys, rats and horses, xylitol causes little to no insulin release. However, it has the opposite effect on dogs, ferrets, rabbits, cows, goats and baboons. Its effect on cats is unknown.

Humans absorb xylitol slowly, and the sweetener when ingested orally is absorbed at from 50 to 95 percent. However, in dogs, xylitol is rapidly and fully absorbed within about 30 minutes. Just a small amount of xylitol can cause a dangerous insulin surge and a rapid drop in blood sugar.

The toxicity of xylitol in dogs is **dose-dependent**. The dose required to trigger hypoglycemia (low blood glucose) is approximately 0.1 grams/kg, while the amount needed to cause liver failure is about 0.5 grams/kg. Most gum and breath mints typically contain .22 to 1.0 gram of xylitol per piece of gum or mint.

This means just a single piece of gum or one mint may cause hypoglycemia in a 10-pound dog. For more detailed information and graphics on how much xylitol is dangerous to different sized dogs, as well as a comparison of xylitol versus chocolate toxicity in dogs, take a look at this Preventive Vet page.

Determining the Amount of Xylitol in a Product

Currently, product manufacturers aren't required to list

the quantity of xylitol on package labels, and while some companies will reveal the amount in their products, many are reluctant to do so.

In some cases, you might be able to use the placement of xylitol on an ingredient list to estimate how much is in the product. In the U.S., ingredient lists for foods must be organized in descending order based on weight. The ingredient weighing the most is at the top of the list.

In most chewing gum ingredient lists, xylitol appears in fourth or fifth place, making it clinically insignificant. But if it appears as one of the first three ingredients, extreme caution should be taken. In fact, I recommend dog guardians avoid or very carefully secure any product that contains any amount of xylitol, no matter how small.

When it comes to medications and dietary supplements, U.S. regulations do not require manufacturers to list xylitol by name on package labels. This is because the sweetener is often categorized as an "inactive" or "other" ingredient, and such ingredients don't have to be listed in order by the amount contained in the product.

To confuse matters further, when xylitol is named in these products, it is often part of an **alphabetized list**, which could lead pet owners to assume — perhaps in error — that there is a very small amount in the product.

That's why it's best, in my opinion, to either avoid or very carefully store any product that contains xylitol in any amount. Dr. Nicholas has compiled a fairly comprehensive list of products containing xylitol here.

Symptoms of Xylitol Poisoning and Required Treatment

Symptoms of xylitol intoxication in dogs include vomiting, weakness, lethargy, loss of coordination, seizures and collapse. Hypoglycemia is usually evident within an hour or two after a dog ingests xylitol, but symptoms are occasionally delayed for several hours.

Treatment depends on how quickly it is given. Vomiting is induced in cases where the xylitol has just been ingested. Once a dog develops hypoglycemia, IV dextrose must be administered until the animal can self-regulate his blood glucose concentrations, which typically takes from 12 to 48 hours. In dogs who ingest enough xylitol to cause liver toxicity, liver enzymes must be closely monitored, as evidence of hepatic necrosis can show up one to two days after ingestion. Should the liver begin to fail, the dog will require IV fluids, dextrose, hepatoprotectants (substances to help support and repair the liver), and regular monitoring of blood clotting activity. When xylitol exposure is caught early in a dog and treated effectively, the prognosis for a full recovery is excellent. The prognosis for dogs that develop hepatic failure is less optimistic.



CARE

CANINE ADVANTAGE RESOURCES & EDUCATION 2017

CONFERENCE INFORMATION

OCTOBER 14 & 15 2017

Some of the biggest talent, movers and shakers in the canine world are coming to Montreal, Quebec, Canada to share their passions and knowledge. Educational Seminars, workshops, hands-on, Demos, Vendors and Educational booths. Judges Education (Masters of Disguise). Sign up for one or two days. There will be time on both days to have sidebars, mini-meetings in dedicated spaces with peers and mentors on topics of special interest. Grassy field to exercise your pet. OFFA Eye Clinic (pending minimum numbers met) & CGN testing. DEMOS: Obedience, Agility, Rally & more.

HEADLINERS, the list is not exhaustive.

- 1) **Anders Rosell**, Avatar Kennels, Sweden/Spain: will present on Breeding, Showing, and Grooming with a demo and Hands-On workshops.
- 2) **Christine Scruggs MDV**, Tivin Standard Poodles, Connecticut: will present on canine reproduction issues, genetics, health & structure.
- 3) **Natalie Green Tessier**, Betterbred.com, Poodles de Grenier, New York: will present on the Dr. Pederson /UC Davis Dog genetics study and how to understand the test results.
- 4) **Jac Harbour**, Tudorose Standard Poodles, Oregon: will discuss puppy testing and choosing the puppy for the right job, and training techniques.

CARE CONFERENCE DETAILS

You will receive a more precise schedule in which the Seminar(s) in each block will each be identified so that you may choose which seminars you wish to attend. First come, first serve. Everyone will receive the updated information via email on the same date.

Both days: 8.30 a.m. Registration/coffee Start time 9 a.m. SHARP	
SATURDAY 14 OCTOBER 2017	SUNDAY 15 OCTOBER 2017
9:00- 11:00 a.m. Block A Seminar #1	9:00- 11:00 a.m. BLOCK E Seminar #5
Break	Break
11:15-12:30 BLOCK B Seminar #2 Hands-on	11:15-12:30 BLOCK F Seminar #6 Hands-On
Lunch	Lunch
1:30- 3:30 BLOCK C Seminar #3 Group Panel	1:30- 3:30 BLOCK G Seminar #7 Group Panel
Break	Break
3:45-5:00 BLOCK D Seminar #4	3:45-5:00 BLOCK H Seminar #8



CARE

CANINE ADVANTAGE RESOURCES & EDUCATION 2017

CONFERENCE INFORMATION

OCTOBER 14 & 15 2017

Anders Rosell:

A Graphic Designer and Art Director by profession, Anders is a world-renowned top breeder of Standard and Miniature Poodles under the prefix 'Avatar'. Anders has been involved with Poodles since the mid 70's and bred and owned many Top and BIS winners. As a small scale breeder Avatar has bred champions in 20 different countries all over the world. The Avatar dogs are to be found behind top winners all over the globe. At prestigious shows such as the PCA (Poodle Club of America National Show) his dogs have produced BIS, BIS puppy, BIS Veteran, 3 different Winners Dog, many Award of Merit winners as well as BIS Stud dog and BIS Brood bitch. Anders is the only European Standard Poodle breeder who has bred/owned four generations of American Top Producers. Six different stud dogs bred or owned by Avatar have produced Group winners in North America only. He has also bred and owned World Winners in Europe, Junior World Winners, Veteran World Winners, Dog Of The Year Winner in Australia, as well as Top Poodle Bitch in Canada. Anders is also a licensed grooming judge and has judged at competitions such as Intergroom in America, the Oster Invitational Tournament in Germany, Groomania in Belgium, Artero International Championship in Spain, Scandinavian Master Groom in Sweden. As an educator he has held many grooming seminars and workshops for Poodles, which includes countries such as the U.S, Canada, England, Australia, Russia, Israel, Scandinavia as well as numerous countries all over Europe. He used to be the co-owner and publisher of the famous breed magazines The Scandinavian Poodle Magazine and Scandinavian Sighthounds – The Journal. Anders is currently living and working in Malaga, Spain.

Dr. Christine Scruggs MDV:

Christine started her kennel Tivin in between college and veterinary school, however her relationship with poodles started in childhood as her mother also bred poodles under the prefix Tiva.

Christine breeds for the total dog, as she does compete in performance events as well as conformation. As a veterinarian, she is intimately familiar with the health challenges faced by the breed. One of her areas of expertise is canine reproduction. Christine is also the author of multiple articles published in various journals.

Natalie Green Tessier:

Natalie has had standard poodles since 1987 and bred her first litter in 2006. Learning about the state of the narrow gene pool and health issues in standard poodles inspired her to look for unusual pedigrees and get involved seriously in an effort to preserve this historic breed. Natalie is one of the founding members of the Standard Poodle Project, and acted as an advisor to Dr Niels Pederson of the UC Davis Veterinary Genetics Lab. More recently, she designed a program and software which analyzes the data of hundreds to thousands of dogs in the database with information gleaned from the aforementioned study to help breeders choose the best mate choice (genetically, for maximum diversity) for a number of breeds facing bottlenecks including Akitas, English Bulldogs, Dobermans & Havanese.

Jac Harbour:

Jac has been breeding Standard poodles conformation, obedience and field titled Standard Poodles as well as family companions, therapy dogs and service dogs under the pre-fix Tudorose since 1972. She has bred some of the most diverse standard poodles in the gene pool today, many service dogs and hunting dogs, and has been a mentor to many. Since 2009 she has been a partner in Trainer's To The Rescue LLC. Jac founded hearing ear dogs & developed special skills dogs both now under the umbrella of the Lions Foundation of Canada. Among numerous awards she has been awarded include Woman of the Year and the Commemorative Medal for the 125th anniversary of the Confederation of Canada in recognition of significant contribution to compatriots, community and to Canada 1991.

Many Extras are still coming up:

Myra Savant Harris is CONFIRMED!!!

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\$10 coupon discount for all VGL testing.

CGN testing is confirmed for sure! Tester Elizabeth Baribault

Seasonal Allergies

By Dr. Becker

Seasonal allergies can affect your pet's entire body, from head to tail. And they can affect your pet's behavior, too, making him irritable or snappish.

Seasonal allergies can make your pet's life miserable

"Is Your Pet's Itching and Scratching From Seasonal Allergies? Here's How to Tell..."

Unlike humans who typically suffer only with respiratory symptoms when they have seasonal allergies, dogs and cats can experience other symptoms as well, like inflamed ears, runny eyes, skin irritation and overall itchiness. Now you can zero in to the root cause of your pet's misery and help keep allergies from spiraling out of control.

According to a recent survey, over half of pet owners don't realize seasonal allergies can make their dog or cat feel miserable – just like them.

And that's unfortunate...

Allergies are extremely common among both cats and dogs today. In fact, it's one of the top reasons for my patients' visits. You know how allergies can make you feel, but do you know how your pet experiences them? The symptoms may not always be the same as yours.

You may notice a red chin or swollen paws, watery or blood-shot eyes, a runny nose, or coughing and sneezing in your pet. But you're also likely to see a whole different set of symptoms...

Unlike humans who typically suffer with respiratory symptoms when they have seasonal allergies, with dogs and cats, allergies can show up as skin irritation, itchiness and inflammation.

When affected by allergies, your pet's skin can become very itchy. She may start scratching excessively, and even bite or chew at areas on her body. Your pet may lose hair, develop rashes, hives, open sores or "hot spots," or inflamed ears, especially with dogs. Ears and feet are often affected.

If you find your pet rubbing herself against any surface she can find – including her face against the carpet – it may be her desperate attempt to relieve the miserable itchiness!

"How Do I Know If My Pet's Symptoms Are From Seasonal Allergies?"

Your pet's symptoms can result from one, or both, types of allergies:

- 1_ Food allergies
- 2_ Environmental or seasonal allergies

In my practice, I find that many cats and dogs suffer from both types. And most of the pets I see show signs of environmental allergies that last from spring through fall.

To help figure out if your pet's symptoms may be from seasonal allergies, these 3 questions can provide valuable clues:

- Do symptoms come and go, or are they constant?
- Do the symptoms look exactly the same in January as they do in July?
- Do they become better or worse as the seasons change?

When your pet's symptoms change with the seasons and don't remain the same throughout the year, chances are he's suffering with seasonal allergies.

Year-round symptoms are likely from food sensitivities or dust mites. If you suspect food allergies or sensitivities, you can find out how to get your pet tested on my Healthy Pets website. I almost always suggest to my pet patients' owners to rule out food sensitivities first.

However, because many pets suffer with both types of allergies, if you don't see significant results within 3 months on a food sensitivity trial, consider treating her for seasonal allergies, especially if the symptoms appear seasonal.

Left Untreated, Seasonal Allergies Can Turn Into a Year-Round Nightmare

When your pet encounters something he's sensitive to in his environment, his immune system launches an attack. Allergens are substances that provoke an exaggerated immune response in sensitive animals.

At a young age, the immune response may

be minimal with only mild reactions, such as itchy ears or a red tummy. A traditional veterinarian typically only provides symptomatic treatment to help provide relief.

Because nothing is done to address the root cause of the allergic response, it's almost certain your pet's symptoms will return the following year when the temperatures rise again.

Only this time – the second year – your pet's symptoms are now more severe. The itching has increased, or he's developed an ear infection or even some hot spots.

Treating the symptoms and not the root cause of your pet's allergies can be a big mistake

Again, a traditional vet treats the symptoms until the season changes and the symptoms disappear once again. Each year the symptoms worsen. Instead of going away, the reactions to the unaddressed root causes become even more intense.

Symptoms that may have previously erupted only in the warmer months, from **May to September**, are now raging year-round, creating continuous misery for your pet!

Ideally, you want to address potential root causes at the first sign of any type of allergic response. For many sensitive pets, this usually occurs between 6 and 12 months of age. Most develop their seasonal allergies within the first few years.

A traditional veterinarian might choose to give your pet steroid drugs to suppress the response to allergens. In my opinion, this isn't an appropriate action for many pets as it depresses immune function.

What's Making Your Pet Itch?

So what exactly causes your pet to feel so miserable when he has seasonal allergies?

As your pet becomes exposed to normally harmless substances in the environment, his immune system can begin to identify these substances as "hazardous."

These can include grass and weed pollens, trees, mold spores, insects, and even human personal care and cleaning and pest control products.

Allergens can be a problem for your pet when they are inhaled, ingested, or come into contact with skin, ears, or paw pads.

When your dog or cat is exposed repeatedly to any of these everyday substances, the immune system launches its attack on what's now viewed as "foreign invaders." During this attack, the immune system produces antibodies, and they, in turn, signal the release of chemicals into the bloodstream. **Histamine**, one of the major chemicals released, is largely responsible for the cascade of inflammatory events that follow.

Your pet's itchiness, irritation, redness and swelling are all a result of the release of histamine and other chemicals in your pet's body.

So how can you help your pet feel more comfortable? It comes down to three things...

Unfortunately, most traditional veterinarians fail to address all three of these causes for discomfort, and instead focus on only one or two, usually with drugs.

- Minimize the amount of allergens in your pet's living environment
- Help promote normal histamine production in response to allergens
- Help the immune system normalize its response to the attack

Unfortunately, most traditional veterinarians fail to address all three of these causes for discomfort, and instead focus on only one or two, usually with drugs.

Just like a three-legged stool needs all of its legs to stand straight and sturdy, your pet needs your help with all three approaches for not only comfort, but to help prevent damage to cells and tissues.

9 Ways to Help Your Itchy, Allergic Pet

There are multiple ways you can help your seasonally allergic pet. Since allergens can easily stick to paws and hair, the first two recommendations may be especially important:

Your Pet Needs Clear Air Just as Much – If Not More – Than You! : Surprisingly, indoor air can be up to 100 times more polluted than outdoor air, and more

contaminants can lead to a greater risk of symptoms.

Chemicals in items such as home building materials and **laundry and cleaning products**, and flame retardants in furniture and mattresses can particularly affect your pet because of her smaller size.

Help protect your pet – and your entire family – from indoor air contaminants and common allergens with Air Purifiers – available in both room-size and whole home.

1_ Frequent baths can provide fast relief from itching and wash away the literally millions of allergens that collect on your pet's skin and coat. **Lavender Pet Wash** is especially formulated for pets with sensitive skin (please avoid oatmeal-based shampoos!).

2_ Foot soaks are a quick and easy way to reduce the

Cats and dogs can become sensitized to everyday substances

amount of allergens your pet tracks into your home and ingests when he grooms himself

3_ Remove your shoes upon entering your home during the warmer months to reduce allergens on floors and in carpeting.

4_ Vacuum and clean floors regularly to reduce levels of allergens in your home.

5_ Help remove allergens and other indoor air pollutants with a home or room air purifier (see sidebar)

6_ Avoid unnecessary vaccines and drugs if your pet is suffering with allergies. Your pet's immune system response is already stressed!

7_ Restrict grains in your pet's diet as they can create or worsen inflammation and gut issues. Feed your pet a species-appropriate diet – my Real Food for Healthy Dogs and Cats Cookbook shows you how to prepare a wholesome raw food diet at home for your pet.

8_ Consider giving your pet a high-quality probiotics supplement like Complete Probiotics for Pets to help maintain a healthy balance of gut bacteria

9_ Add Krill Oil and Coconut Oil to your pet's diet to help promote a normal inflammatory response.

Reducing allergens in your pet's environment – especially indoors – is a good first step. And so is addressing your pet's diet and gut health. Relief for allergic pets often begins in the gut as an imbalance in gastrointestinal bacteria is often why seasonal allergies worsen each year!

Why the Ideal Seasonal Support for Your Pet Isn't to Get Rid of Every Last Allergen

If your mission is to eliminate every single allergen from your pet's environment – or to keep your pet away from all potential allergens, you're in for a surprise.

Reduce them, yes. But with outdoor seasonal allergens, you can't control their source. Potential allergens will always exist around your pet, no matter what you do. Rather, a much better goal is to support your pet's functional immune response.

You want your pet to be able to handle allergens with a normal immune response.

That's why I don't agree with the traditional veterinary approach to treating seasonal allergies with drugs. Steroids turn off your pet's immune system rather than support its normal, healthy function.

And here's something many pet owners don't realize...

When your veterinarian places your pet on steroids for

seasonal allergies as the only treatment plan, he will probably need to remain on them, intermittently, for life!

As you might imagine, a forever-suppressed immune system isn't likely to serve your pet well over his or her lifetime.

At the same time, if your pet is suffering with seasonal allergies, you don't want to stimulate your pet's immune function. His immune system is already on "overdrive!" Instead of turning off or stimulating your pet's immune response, you want to support healthy normal immune function to help it "re-balance itself" and respond normally, without cascading out of control.

I've talked about how allergies are an abnormal immune system response.

So the best way to help your pet handle allergens is to support optimal, normal immune function.

Taking the steps I've outlined above – such as avoiding unnecessary vaccines and drugs and minimizing allergens – can help support your pet's normal immune function in the face of allergens.

Certain nutrients can also help. During my nearly 20 years of practice, I've used a seasonal allergy protocol of herbs and vitamins

that have produced excellent results for my patients.

And now I've combined them into a one-of-a-kind formula called **Seasonal Support** to help:

- Support an optimally functioning immune system, allowing it to re-balance itself when confronted with environmental allergens
- Support a normal inflammatory response to potential allergens by helping to maintain normal histamine levels
- Bring greater comfort to pets during allergy season

Let me tell you about Seasonal Support's valuable herbs and vitamins...

Help support your pet's body's immune response to common seasonal allergens

Goes Straight to the Root Cause of Inflammation, Redness, and Irritation

Rather than just covering up the symptoms of seasonal allergies, these eight nutrients address the root cause of your pet's discomfort. And instead of blindly stimulating immune function, they gently coax it to re-balance itself.

Quercetin – The dietary bioflavonoid quercetin helps quell the fire of redness, irritation, and inflammation by helping to maintain normal histamine levels – a major torch for these symptoms. Quercetin also helps promote a normal inflammatory response through its potent antioxidant activity.

Bromelain – This proteolytic enzyme from the stem and fruit of pineapple increases the absorption of quercetin, making it more effective. Working together, they promote a normal inflammatory response by supporting normal prostaglandin release, another pathway by which inflammation can occur.

Vitamin C – A potent antioxidant that supports the body during trauma, and supports a normal inflammatory response while having a natural antihistamine effect. Dogs make some vitamin C, but they may not make enough to help guard against seasonal allergies. (I especially like to combine quercetin, bromelain, and vitamin C because of their synergistic effect in providing optimal support for a normal inflammatory response.)

Bee Pollen – Widely used for centuries in Traditional Chinese Medicine for its “superfood” properties, bee pollen may help desensitize your pet to allergens and help eliminate longstanding symptoms quickly.

Plant Sterols – Produced by plants, molecules like beta-sitosterol (BSS) and its glycoside BSSG have been shown in animal studies to support a normal inflammatory response and a modulating, or balancing effect on immune function in those suffering with seasonal allergies.

Butterbur Extract – Farmers once preserved butter by wrapping it in the large leaves of this marsh plant. Long

used for medicinal purposes, the extract from the plant's roots has become a favorite of mine for its ability to promote a healthy normal inflammatory response to allergens.

Stinging Nettle Leaf - Acts like butterbur in promoting a healthy normal response to allergens by helping to maintain normal levels of histamine and other pro-inflammatory chemicals. Nettle leaf may also help with skin irritation.

Cat's Claw – An herb from the highlands of the Peruvian Amazon, cat's claw has been used by natives for hundreds of years. It's become one of South America's most prescribed herbs for promoting a normal immune response to allergies.

What Could Seasonal Support Do for Your Pet?

If your pet is suffering from skin irritation or itchiness, or respiratory symptoms like a runny nose or coughing or sneezing, it's time to provide him or her with long-lasting relief that acts at the source to promote comfort and to help promote a normal immune and inflammatory response to allergens.

Band aid-approaches like using steroid drugs simply cover up the symptoms and do little to change

the cause. This failed – and potentially dangerous – approach can end up doing more harm than good. It can even doom your pet to a lifetime of steroid drugs. Seasonal Support is a pet-friendly beef liver-flavored powder that you simply give to your pet once or twice daily. When used during allergy season – I recommend getting a two to four week head start – you can give your pet lasting relief and comfort against common allergens. Why let your pet suffer when she or he doesn't need to?

If interested on discovering what **Seasonal Support** can potentially do for your pet.

See more details on Dr. Mercola site.



Bee pollen is sometimes called "nature's multivitamin"



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Bellefleet Toy Poodles

New Canadian Grand Champion

BISS MBPISS Can. & Am.GCh.

Bellefleet's Captain Morgan

(by Am.Ch. Primrose Cosmopoliton ex
Can.Ch. Bellefleet's Sugar and Spice)
Bred by Bellefleet Poodles.
Shown by Kim Wendling and Alysia Reichertz.

Dr. Joanne & Alysia Reichertz joanne@bellefleet.com
www.bellefleet.com



Bellefleet Miniature Poodles

New South African Champion

MBIS Can.& Am.GCh. Bellefleet

Don't Pass Me By

Shown her completing her South African Championship.
Handled by: Jackie Browning.

Dr. Joanne & Alysia Reichertz joanne@bellefleet.com
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BIS BISS BPIS BPISS Am CH Cnd GCH Gardenpath Concours d'Elegante aka "Ella"

Sire: Am. GCH Dacun Kaylens He's A Heartbreaker

Dam: CH Canzone Bella Nina of Gardenpath TD CD RE CGN VCX

Gardenpath Poodles is extremely proud of Ella's recent wins!

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**AOM Westminster Kennel Club
AOM American Kennel Club National Show
and another CKC All-Breed BIS**

Presented by Allison Cowie Hardie

Bred & Owned by Renee S. Koch : gardenpathpoodles.com _ Kitchener, Ontario





GCh. Ch. Miwida Cyr Aramis with Glow aka Alfie

Bred by: Sally Ciralo & Charlene Smutny

Owned by: Gloria Koolsbergen & Isabel Savard

Alfie is a natural show dog and he finished his championship career very quickly few month over a year old.

We are very proud of this young boy and now we are looking forward to see his puppies.

For more information about him or his health testing just check hip page on my website.

Thank you Allie Cowie Hardy for a great presentation !

www.poodlesglow.com



Ch. Asa's Willy Wonka Glow Factory aka Willy



Bred by: Ann Karin Larsen

Owned by: Gloria Koolsbergen

Willy has stunning looks. He finished his Canadian Championship at 7 month old and now he is competing in the USA.

On his first week-end out, he already got his first major at Livonia.

He has amazing personality and is already training in agility.

Thank you Allie Cowie Hardie for taking my boy to new horizons' professionally shown and looking great!

For more information on willy's health testing see his page

www.poodlesglow.com



Bellefleet Miniature Poodles

New Canadian Champion

Can.Ch. Bellefleet's Full Speed Ahead — "Austin"

(by Am.Can.UKC.Ch.Bellefleet Dynamic Force TP ex MBIS Am.GoldGCh. Ber.Can.Ch.Bellefleet's Living in the Fast Lane TP)

**Bred by Bellefleet Poodles.
Shown in the Bred By Exhibitor Class by Alysia Reichertz.**



Group 2nd from the Bred by Exhibitor class

Under Virginia Lyne

Dr. Joanne & Alysia Reichertz

joanne@bellefleet.com

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American GCH CH Glow Sir Pierre Frenchy Pompey

Grand Champion at 10 months old

Sire: GCH, CH Logos Raise
A Glass aka Aiden (USA).

Dam: GCH, CH Glow Blanca
Nieves aka Neige (Canada)



Pompey is registered with the CKC and AKC. He comes from a pedigree of Champions. He has great movement, he has a stunning coat and dark pigmentation. Pompey is intelligent, competitive, loyal and loves interaction. His personality and health coupled with his remarkable appearance makes for a valuable breeding option. Both his parents are Optigen Clear. All his health testing will be completed at 2 years old and will be on his website page.



GLOW
Miniature
Poodles

Owned by Jodie Roginsky and Gloria Koolsbergen
www.pompeygrandchampion.com _ (484) 707-7999

Bred by: Gloria Koolsbergen (Montreal, Canada)
www.poodlesglow.com _ (514) 295-7230

HANDLED BY:

PAUL & CHRYSAL
CLAS

CH Glicks Midwinter Magic CDX RN CGN HIC THD VC HITs aka Mango

Bred by Lisa Kimberly Glickman
Co-owner handled by Cathie Newey



Handler Cathie Newey got two HIC and HIT with Mango doing her CDX at the November trials in St Lazare, here pictured with Judge Lisa Day. In 4 runs over 2 weekend, Cathie and Mango qualified each time earning a High in Class.



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THE QUILTED HOUND
BECAUSE
IT'S ALL ABOUT
GREAT HAIR!



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Next News letter planned for July 2017,

Please I need our member's input!!!

Pictures, Interesting Articles, Health issues, Brags, Stories, Recipes, etc.

Please send input to your editor Gloria Koolsbergen

E-mail Address poodlesglow@live.com

www.poodlesglow.com

