

THE Irish Wolfhound Foundation



Focus

Summer 2017

The Irish Wolfhound Foundation, Inc.

Officers and Directors

President..... Doug Marx
Vice-PresidentFrances Abrams
SecretaryMary O'Malley
TreasurerDavid Milne
DirectorMariellen Dentino, M.D.
DirectorEugenia Hunter
Director Thomas Powers
Director Richard Staudt
DirectorAudrey St Clair
DirectorPeter R. Van Brunt
Honorary DirectorMichael Fullwood
Honorary Director.....Kathy Wilson

www.iwfoundation.org

The Irish Wolfhound Foundation is a 501(c)(3) charitable organization. Your donation is tax deductible to the full amount allowed by law.

Focus

Audrey St Clair, Editor
537 Hackman Rd.
Lititz, PA 17543
thecoopersinn@aol.com
717-626-2658

Focus is a publication of The Irish Wolfhound Foundation, Inc. No portion of this newsletter may be reprinted without the express permission of the editor.



Two days old, still in the nest. Read more about Lambkins and the puppies on page 5.

It's That Time of Year!

The Irish Wolfhound Foundation's membership year starts on July 1, so if you haven't already it's time to join or renew!

With the help of our supporters, we tested hundreds of Wolfhound hearts in the last year, published our fact-filled Focus newsletter, funded rescue grants, sponsored educational seminars with top veterinary researchers, and continued our lifetime study which will follow Wolfhound subjects for their entire lives.

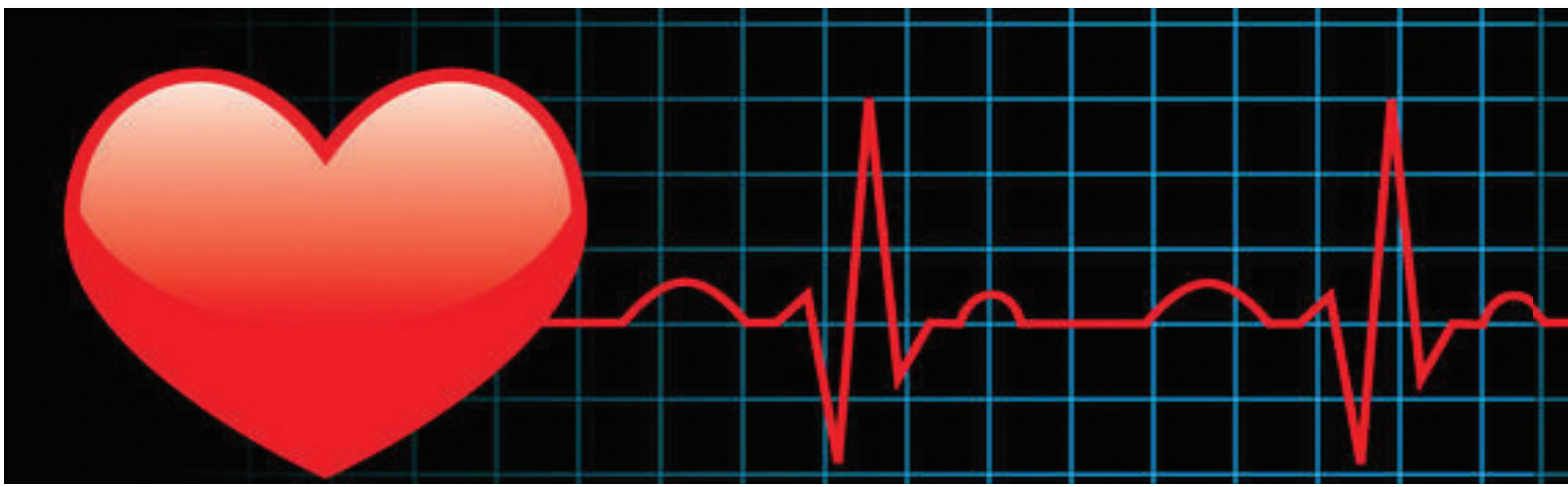
We are very proud of the contributions we make to bettering the lives of Irish Wolfhounds, and we are grateful for the support we receive. A US\$20 membership contribution will once again let you be a part of the work we do for another year.

Choose your way of joining/renewing:

Online – use the blue join or renew box on the iwfoundation.org home page

Snail Mail - send US\$20 and a completed membership form (found on Page 8) to The Irish Wolfhound Foundation, c/o David Milne, Treasurer, 150 Creek Rd, Phillipsburg, NJ 08865

The hounds thank you!



Heart Testing at the National



A Quick review of known cardiac findings:

Heart disease in the Irish Wolfhound begins with atrial fibrillation in nearly all hounds.

Atrial fib is an abnormal rhythm which may or may not be symptomatic and is detected on the EKG.

The incidence of heart disease increases with age and if your hound is normal at 3 it does not mean he will be normal at 4.

Heart disease in the IW is treatable and there is hope for good quality and length of life.

There is a small incidence of valvular disease in the IW. This cannot be detected by an EKG but can be found with auscultation (listening) by a trained cardiologist.

If a murmur is heard the hound will need an echocardiogram.

A small number of hounds develop abnormal pumping action in the heart with no rhythm change. This cannot be detected with an EKG and some prefer to have an echo done to check for this.

Cardiology Testing 2017 National:

Two board certified cardiologists attended the National Specialty this year for one sunny and one rainy day of testing.

There still appears to be confusion in testing offered.

The cardiologist listens to each dog's heart. If a murmur is heard an echocardiogram is needed.

An EKG is done- if afib is found an echo is done. The OFA paperwork has to be filled out by the cardiologist. If the owner sends in the paperwork this hound is now registered with the OFA.

The owner can check a box to enter only the general data base or to be identified.

This is required yearly.

Echo Cost Subsidized by IWF

There is still a need for data in older hounds so an Echo for any hound older than 8 will be subsidized by the IWF at a cost of \$100 to the owner.

If the hound is in atrial fibrillation or has a significant murmur the Echo will be subsidized by the IWF at a cost of \$100 to the owner.

Any owner who wishes to get an Echo for breeding stock/ family history or any other reason will be charged \$175 with the IWF covering the rest of the cost.

Auscultation by the cardiologist /EKG/ Completion of OFA paperwork is \$60.

New OFA Requirements

The ACVIM has developed these new requirements for the IW and other breeds with acquired rather than congenital heart disease. The EKG and auscultation are required yearly and the forms are available only from cardiologists. This yearly testing will make OFA statistics for cardiac disease more meaningful.

At Cardiac Testing this year 23 EKG and auscultations with OFA forms were completed.

Twenty four hounds had echocardiogram with EKG, auscultation, and OFA paperwork completed.

This is a total of 47 hounds tested.

The LCS11 Study:

The IWF has and is collecting DNA on every possible hound. DNA is stored at University of Pennsylvania. The DNA is of little value if the health and lifespan of the hound are not known.

The original follow up study of our hounds provided very needed and helpful information but was too cumbersome for participants.

A new project was launched that can be done easily on line. All that is required is a few clicks every year and an EKG which your hound needs anyway.

ANY dog is eligible for this study. A dog can enter at ANY age.

We would like to encourage puppies to enter.

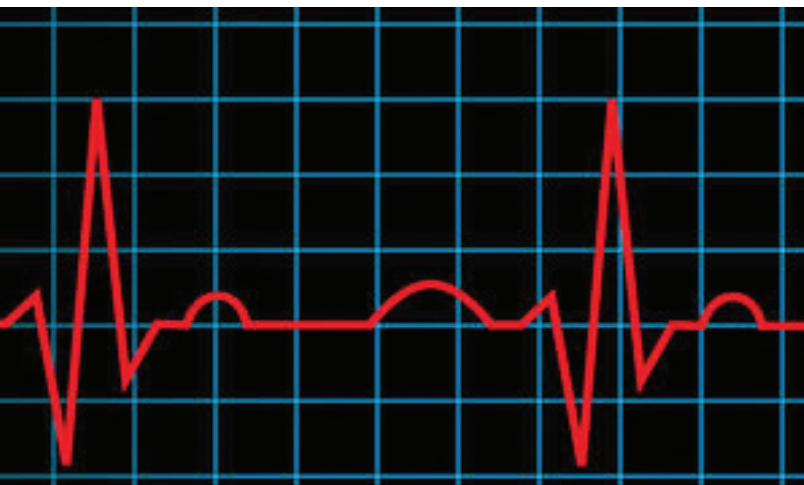
We assume our puppies are healthy but it would be good to examine the incidence of liver shunt/ congenital kidney disease/ early allergy problems etc etc.

When a puppy enters the study the EKG may be postponed until at least a year as the chance of finding a problem is very small.

At testing sponsored by the IWF every dog is asked to participate in the LCS11 follow up. The EKG is free of charge for dogs only participating in the LCS11.

Because the EKG does not detect valvular disease each hound was encouraged to participate in auscultation by the cardiologists and enter the OFA data base.





Weakness in the Rear Limbs

submitted by Melanie Mercer, DVM

In any giant breed dog, the inability to rise, stand, and walk is often a death sentence and disability in the rear end is the third most frequent cause of death in Irish Wolfhounds. In the past few years, we've made significant progress in understanding the progression of heart disease. There are clinical trials for, and improvements in, the treatment of both heart disease in our breed and in osteosarcoma. But rear end weakness, also known as "down in the rear," is not a large part of our collective consciousness. Often, this is simply assumed to be a sign of old age. One important reason for this is that there is not one single condition, with a single cause and a single treatment protocol, associated with this problem. There are MANY conditions that can lead to weakness in the rear limbs of dogs.

The causes of this problem fall into two main groups: those in which pain prevents normal movement and those in which weakness rather than pain is the underlying issue. And while not a primary cause of the inability to ambulate well, obesity can compound each and every one of these problems. It can be the factor that takes an individual from having problems that are manageable to one who is going to be euthanized because his owner can no longer provide care.

The following is an overview of many of the causes that lead to the inability to rise, stand, and walk well:

Conditions that cause pain-

Degenerative osteoarthritis: Immune mediated arthritis is very rare in dogs, so when we refer to arthritis, we are referring to the "wear and tear" type conditions of osteoarthritis. Anyone who has personal experience with an arthritic joint can attest that this can cause a low grade constant pain, but may also cause more intense intermittent pain. It can occur in any joint, but in dogs, it most commonly affects the hips, the knees, the elbows, and to a lesser extent, the shoulders.

There are a variety of changes that occur inside an arthritic joint. Inflammation occurs in the structures inside the joint, changing and decreasing the effectiveness of the joint fluid and its ability to lubricate the joint. At the same time, inherent instability prompts the body to compensate, by laying down new tissues around the joint in an attempt to make the joint more stable, leading to the knobby appearance and feel of affected joints.

Hips- It is common to refer to all arthritis in the hips as dysplasia, but this is not technically correct. Dysplasia refers to abnormal growth or development, and in the case of hip dysplasia specifically refers to the

genetic tendency to have poorly constructed joints. Dysplasia speeds the wear and tear on a joint but is really separate from the arthritis which develops. This is also true for elbow dysplasia. Dysplasia can lead to a more severe arthritis at a younger age than would develop otherwise, but not all arthritis is the result of an inherent abnormality in the joint structure. Injuries also increase the risk and severity of arthritis that later develops in a joint.

Hip pain is a very common cause for a dog to have trouble standing and the one most often assumed by veterinarians. When the hips hurt, over time the dog bears more of his weight on the front legs by shifting the way he stands and walks. Eventually this leads to a decrease in the muscle mass of the hind legs and an increase in the muscles of the forelegs and shoulders. This may give the dog a general appearance that can remind you of a bison; very muscular in front with loss of mass in the rear half of the body.

Arthritis in the hips generally produces pain when the leg is extended behind the dog and this can be used to begin differentiate pain in this location from other pain or weakness in the rear legs. Radiographic changes may not correlate well with physical pain experienced by the dog. Some individuals have horrible looking radiographic films and relatively little pain and others exhibit great clinical pain with much less radiographic evidence of arthritis.

Elbows- Elbow dysplasia is a more common condition in our breed than has been commonly realized and can cause significant lameness in puppies as early as 5 months of age. It often occurs in both elbows, and since a dog can't limp on both front legs at the same time, it may go unrecognized. Arthritis in the elbows eventually leads to palpably thickened and knobby joints, is commonly found in older wolfhounds, and is a significant cause of difficulty in rising.

Shoulders- Arthritis in the shoulder is most often due to a previous OCD lesion. Osteochondritis Dissecans leads to abnormally thick cartilage on the surface of the head of the humerus, or upper arm bone, between 4 and 7 months of age. Forces that would not damage normal articular cartilage may lead to the formation of a cartilage flap inside the joint. Early surgery to remove this flap may decrease the changes inside the joint as the dog ages, but some degree of arthritis is almost inevitable. This problem often occurs in both shoulders. Early in the course of OCD, pain can be elicited by straightening the leg and raising the foot, extend-

(Continued on page 4)

Weakness (Continued from page 3)

ing the shoulder forward.

Stifle- More commonly referred to as the knee, this is one of the most common sites of arthritis. Anterior, or Cranial, Cruciate Ligament tears, both complete and partial, cause a sudden onset of severe lameness. Injury to this structure causes the joint to be very unstable and over time leads to very obvious bony changes that are easy to feel on palpation.

Intervertebral Disc Disease (IVDD): Changes in the cartilage pads between the vertebrae, the bones of the spinal column, can lead to pressure being placed on the spinal cord itself. The earliest sign of this condition is pain, though it can lead to weakness or paralysis in some circumstances. When it occurs in the back, or lumbar spine, it may cause the dog to stand or walk with the spine arched. Muscle spasms may occur as he tries to shift and alleviate the forces causing the pain.

“Wobblers Syndrome”: Also known as cervical instability, this is an instability of the joints of the spinal column in the neck which leads to the production of both soft connective tissue and bone in an attempt to add stability. This may cause pressure on the spinal cord, causing pain and some degree of neurologic dysfunction, including weakness and balance problems. While technically affecting the front half of the dog, this condition can prevent the dog from standing and walking normally and may be confused with rear end problems.

Spondylosis: Effectively, this is arthritis of the joints of the spine, and bony changes may press on the spinal cord causing symptoms similar to IVDD even though the discs are normal.

Cauda Equina Syndrome: Also known as Lumbosacral Syndrome, this occurs when any disease process alters the spinal canal or the blood vessels in this region, resulting in damage to the end of the spine and the nerves that come off it. Signs are usually insidious and slowly progressive. The dog may exhibit difficulty in rising, reluctance to jump or play, decreased tail wagging or ataxia. As compression of nerve roots continues, the pelvic limbs often become weaker and eventually incontinence (fecal and/or urinary) may occur.

Conditions that cause weakness

These conditions generally into three categories: neuromuscular, cardiopulmonary, and metabolic conditions. Neuromuscular conditions can be caused by a lesion or disease process of the spinal cord, the peripheral nerves or the connection of the nerves to the muscle tissue. Neurologic symptoms are not caused by pain, but by the inability of nerve impulses to pass normally from the muscle to the brain or back. The dog may not know where its feet and legs are in relationship to the body or the ground, causing balance problems, may be unable to place the feet normally on the floor, or may be unable to recognize when its feet are placed abnormally. These are known as proprioception deficits. Abnormal nerve impulses also causes weakness, known as paresis, or, in more serious cases, paralysis, the inability to move the limbs.

Degenerative myelopathy: This is a slowly progressive degeneration of the spinal cord. Early signs include difficulty in rising or noticeable swaying in the dog’s gait. This may be confused with hip dysplasia and other causes of hindlimb weakness, however hip dysplasia is not associated with neurological deficits and DM is not associated with pain. You may hear scuffing of the toe nails of the rear feet or see dragging of the rear limbs while walking, with abnormal wear of the nails. The rear limbs may cross over each other even before obvious hindlimb weakness is seen. Progressively, the signs become more severe and eventually affect the forelegs if the dog is not euthanized. There is no effective treatment for this condition and definitive diagnosis cannot be made without post mortem testing. This has not yet definitively been diagnosed in wolfhounds.

Intervertebral Disc Disease, “Wobblers Syndrome”, and Cauda Equina Syndrome: As noted above, these conditions are often painful, but may also causes neurologic symptoms. Affected individuals usually have difficulty when trying to stand and may have proprioceptive deficits.

Neoplasia: Any tumor of the spinal cord or growth that presses on the spinal cord or brain may cause neurologic problems. These are usu-

ally slowly progressive.

Myasthenia Gravis: This is an autoimmune disease affecting the connection between the nerves and the muscle cells. The production of antibodies destroy the acetylcholine receptors on the muscles, stopping messages from reaching the muscle cells. It causes muscular weakness and excessive fatigability and has been associated with the development of megaesophagus in adult dogs. It has been diagnosed in wolfhounds.

Cardiopulmonary conditions, those diseases of the heart or lungs that compromise the blood flow, blood pressure, heart rate, total blood volume, or amount of oxygen carried in the blood stream and reaching the muscles, can be seen clinically as a dog who is “exercise intolerant,” unable to perform normal physical activity due to the abnormal medical condition. Treatment for underlying disease may significantly improve the dog’s quality of life. These conditions may include:

Cardiomyopathy which compromises the cardiac output of blood

Arrhythmias that affect the ultimate blood flow to the body

Bradycardias (low heart rates) that decrease total cardiac output

Valvular disease that can lead to congestive heart failure and low cardiac output

Hemorrhage from splenic tumors that can chronically decrease oxygen carrying capacity

Other disease conditions affecting the whole body may cause general muscle weakness that can impair the dog’s ability to get around. Hypoadrenocorticism (low levels of hormones produced by the adrenal glands, also known as Addison’s disease) causes generalized weakness, as does Hyperadrenocorticism (high levels of adrenal hormones, also known as Cushing’s disease). Diabetes can cause weakness, though other signs such as increased urination and water intake are usually noted first.

Electrolytes imbalances can cause generalized muscle weakness. Both high and low potassium levels, as well as high and low calcium levels, can cause muscle weakness. Chronic kidney disease, some cancers, and any systemic disease that affects the acid/base balance of the body can cause this. Some nutritional deficiencies can cause significant calcium imbalances over long periods of time. And excessively low levels of vitamin D and Thiamine (Vitamin B12) can cause muscle weaknesses

What you need to know:

It is important for us to differentiate between the causes of difficulty rising, standing, and walking. Some conditions may be preventable. Early diagnosis of other conditions may allow for the correction of the underlying problem, or slowing of the progression of disease processes. This allows a potentially longer life span, and improved quality of life. Recognition of those conditions that have genetic components allows for breeding decisions that decrease the numbers of dogs affected. Definitive diagnosis also allows for treatment of underlying systemic diseases, possibly alleviating symptoms entirely.

If you have a dog who is having difficulties with a “weak rear”:

Look at its overall health and do not simply assume it has arthritis.

Have basic testing done to rule out the systemic problems that cause weakness.

Have heart and lung function evaluated.

Have a neurologic exam performed.

Try to localize and pain that may be the underlying cause.

Before your dog has any symptoms:

Maintain your wolfhound at a healthy. Any extra weight is likely to increase the severity of symptoms seen in any of the causes listed above.

Make an active effort, while your dog is young and healthy, to build muscle and improve cardiovascular function with regular long walks or hikes and “physical therapy” style exercise.

Continue to have annual cardiac screenings performed.

Know the difference between the signs of pain and of neurologic dysfunction.

If you feel your wolfhound is showing signs of “getting old,” do not assume there is no other cause. Old age is not a disease and some symptoms we attribute to aging are really signs of early chronic disease conditions.

Lambkins and the Puppies

Frances Abrams

I've been told I was missed at the National this year so I thought I would fill you in on what I was doing while the rest of you were enjoying the mud. I was not sleeping a whole lot. I'm still not.

Trish, as usual, exceeded expectations (Just give me three or four nice puppies) by presenting us with 10, 6 girls, 4 boys.

As promised Mary Ellen and Mariellen and Rebecca were all present at birth. Fortunately my vet suggested a C-section after little action on the due date. The uterine horns had twisted around and the babies were trapped. So, everyone pitched in and all the puppies survived. Trish had a more difficult surgery but she, too, got through and immediately started taking on her responsibilities for the critters that had suddenly appeared on her mattress. For 2-3 days Mariellen, Mary Ellen and I rotated shifts keeping the mandatory 24 hour attendance on puppies.

Then my help went home. Trish was an excellent mother, ready for feeding and cleaning puppies around the clock. The problem was that she could doze contentedly while I was petrified to sleep or leave her for a moment lest she somehow crush or suffocate one of these tiny babies.

My solution was a "bedroom" for the puppies. I don't have a whelping box so I padded the floor of my large walk in closet and provided a heat lamp and Lambkins. Lambkins was a gift from their "godmother" Mariellen. She was not only an excellent and safe surrogate mother while I catnapped, fed the other dogs, and took an occasional shower, but she provided a great illustration of the growth of an Irish Wolfhound puppy.



May 24th, a month old. Kids are okay for Blue but Orange still loves Lambkins.



May 9th A week and a half, stacking up for Lambkins, yeah, there are still ten, they just didn't all get in the picture. They have taken over the entire closet at this point.

When Green went on his great adventure (a car ride to the vet's office), Lambkin went along. There was not a peep from the crate. I figured it was the bone I had given him that was keeping him quiet but he was asleep on top of Lambkins when I opened the door of the crate.

Lambkins is still there in the background but the puppies have taken to the outdoors. They have picnics in the grass, play in the tunnel, climb mountains and explore the depths beneath the deck. They come home to sleep and nap but Lambkins often gets shoved to the side and seems to be more frequently needing a trip to the washing machine. I've even found them trying to take Lambkins out for a walk. He is still a little awkward to carry.

Canine Influenza Virus (CIV)

One of the newest threats to our hounds is the Canine Influenza Virus (CIV). There are actually two forms of CIV, the H3N8 strain, which has been around since at least 2005, and the H3N2 strain, which was first reported outside of Asia in 2015.

The symptoms of a CIV infection resemble those of "kennel cough". Dogs infected with CIV develop a persistent cough and may develop a thick nasal discharge and fever (often 104-105°F). Other signs can include lethargy, eye discharge and reduced appetite. Canine influenza infections can cause mild to severe symptoms in dogs. Some dogs may show no symptoms at all but are still able to spread the disease.

Most dogs recover within 2-3 weeks. However, some dogs may develop secondary bacterial infections which may lead to more severe illness and pneumonia. This is the biggest risk for Irish Wolfhounds. Like

any pneumonia in our breed, symptoms should be treated promptly and aggressively with broad spectrum antibiotics.

There are laboratory tests for both strains, however, there no quick clinical tests so symptoms should be treated without waiting for the outcome of tests.

Dogs infected with CIV are highly contagious and almost all dogs exposed to CIV will become infected. The majority (80%) of infected dogs develop symptoms. The disease itself is rarely lethal but secondary infections are common and can be fatal.

While dogs with H3N8 are contagious for a relatively short period of time, dogs with H3N2 canine influenza should be isolated for at least 21 days and, since it may not be possible to immediately determine the strain

(Continued on Page 6)

This and That

Cannot Get Away From Ticks

With all their joys, spring and summer also bring ticks and tick borne disease for hounds and humans. There has been either increases in the actual incidence or in the diagnosis of these problems in the past several years.

The Canine Health Foundation has offered several new grants for research into better diagnosis and treatment of tick borne disease. Some of these projects will get funding from the IWF and the IWCA.

There is great variation in treatment recommendations, especially if relapse occurs after completed treatment, and one study will review all the literature and hope to offer veterinarians better treatment advice.

OFA Quarterly Report

The OFA Quarterly Report from Jan-3-31-17 has been released.

Hips x-rayed in 28 Iws.

Elbows x-rayed in 24.

Thyroid tested in 4.

ACA (revised testing for acquired cardiac disease) 6.

Eyes tested in 16.

Degenerative Myelopathy tested for in 1.

The OFA data overall shows 4.8% of IWS tested have hip dysplasia.

12.9% have elbow dysplasia (however only .7% have severe grade 3).

1.7% reported with heart disease.

These numbers are impossible to interpret.

If getting these tests owners can help by putting data in the statistical data base. This can be done without identifying the individual dog.

It would be very helpful to know if 4.8% incidence of hip dysplasia is real? And elbows? How big a problem do we have?

Genetic Help

There are so many genetic studies going on and the knowledge gained at this point can often offer no practical help. However in some cases real help may be coming....

Boxers have a severe inherited rhythm problem that has been found to be caused by a mutation on the striatum gene.

If a dog gets 2 copies of this mutation he will have severe disease and likely sudden death.

If a dog gets one copy of the mutation and one normal gene he may be normal OR have

severe disease. Dr Kate Meur has been able to identify a genetic difference in these 2 populations. It may be associative and not causative but may offer a way to help owners know which dogs will develop severe disease.

Osteosarcoma Vaccine

While the laborious task of identifying genetic markers in osteosarcoma continues some progress is being made identifying treatments that may be well tolerated and offer hope for prolonged survival.

Despite amputation and chemotherapy most hounds with osteosarcoma succumb to metastatic disease within a year.

It has long been known that hounds who developed an infection had improved survival time.

This and other findings have indicated that osteosarcoma is a cancer amenable to immune therapy.

The first studies using a vaccine to generate cytotoxic immune cells to target osteosarcoma cells involved only dogs that had amputation plus standard chemotherapy. The vaccine has also been studied in dogs without amputation. These studies are now closed.

There is news that this vaccine may be released for use by oncology veterinarians in the near future. The cost and restrictions of use have not yet been released. Should it be available for use in combination with other therapy there can hopefully be new possibilities for afflicted hounds.

Radiation plus Immunotherapy

Radiation also increases immune effects. With palliative radiation to reduce pain the median survival is 4 to 6 months.

There is a recent report on 10 dogs treated with radiation plus immunotherapy

The radiation was given on 2 consecutive days.

This was followed by immunotherapy every 3 weeks for 8 treatments.

Lameness improved in 7 dogs

After 8 doses of immunotherapy 5 showed minimal progression of disease.

4 dogs developed pulmonary mets.

4 dogs had pathological fractures.

The median time to progression of disease was 204 days.

The median survival was 285 days (compared to 180 days radiation alone).

Quality of life was reported good for these dogs. It is not clear when this will be widely available.

Cost of this treatment not yet available.

Radiation plus Bisphosphonates

The combination of radiation therapy followed by Bisphosphonates (usually intravenous but could be oral treatment) is also being widely used with some decrease in local symptoms and prolonged survival. Adding immune therapy to this may provide hounds with even better chances for prolonged survival.

Some practical Help?

The wish of owners is well tolerated treatment that has reported benefit and is within financial and geographical reach. There are indications this is beginning to happen as more combination trials are announced, more novel therapies developed and experience with immunotherapy continues.

Borzoi Holter Project

Although Borzoi have little known heart disease there is concern that there may be a significant incidence of sudden death.

The Borzoi Club of America has started a project to learn the incidence of VPCs in the breed. The club has rented holter monitors.

Owners will place the holters. All participating hounds will be followed for their lifetime to learn if VPCs may also predict cardiomyopathy in Borzoi.

The Borzoi Club of America has notified all AKC confirmation judges not to penalize for the small areas of missing coat and explained the project in the communication.

Review of Heart Testing in UK

The IW Health Committee has a recent review posted.

They also emphasize atrial fibrillation is the hallmark of IW cardiomyopathy.

They have not published further details of the cardiomyopathy but have reported the onset of atrial fibrillation is 5.5 years (the same as in the U.S. Data) and that not all hounds with heart disease die from cardiac failure.

They also report a familial disease with increasing incidence as the hound ages.

To help owners test they have divided their country into 10 areas. They are offering subsidized testing on 2 weekend days in different areas for dogs that do not attend dog shows. They plan to expand this testing as demand grows and staff can be acquired.

They emphasize that cardiac disease in the wolfhound is treatable and that a single testing is not enough- all hounds not just breeding stock will benefit.

Influenza (Continued from page 5)

of the virus, conservative treatment is recommended.

Influenza viruses do not usually survive in the environment beyond 48 hours and are inactivated or killed by commonly used disinfectants so hand washing and good sanitation can help reduce the spread of disease.

There is now a bivalent vaccine for both the H3N8 and H3N2 strains of canine influenza virus. The CIV vaccination is a "lifestyle" vaccination, recommended for dogs at risk of exposure due to exposure to other dogs – such as boarding, dog shows, training classes and visiting dog parks. However, because of the serious risk of secondary infection in our breed, it is recommended that most wolfhounds be either vaccinated or protected from exposure.

Additional Resources:

For general information:

<https://www.avma.org/public/PetCare/Pages/CanineInfluenza.aspx>

<https://www.avma.org/KB/Resources/FAQs/Pages/Control-of-Canine-Influenza-in-Dogs.aspx>

For information on clinical testing:

<https://ahdc.vet.cornell.edu/news/civ.cfm>

For information on vaccines:

<http://www.doginfluenza.com/>

The Irish Wolfhound Foundation gratefully acknowledges contributions from the following supporters

Frances Abrams
IMO: MB Kinsella-Topping, Jim Lotz, Nancy Aiken, Janet Souza, IW's: Tabitha, Celia, Tallberg, Trish's baby "Little John", our Jack, Chimay, Teddy, Onyx...

Bethany Allsop

Jean and Jerry Ault

Mindy Ballinger
IMO: MB Kinsella-Topping

Gloria Barrick

Patricia H Berkovitz

Gretchen Bernardi

Risha & David Berzins
IMO: MB Kinsella-Topping, the greatest friend to all hounds and people.

Jill Bryson
IMO: Mo & Deb Aiken's Tana, Walk and Mary Perry's Crosby, Kathy & Stu Dykstra's veteran IMO: MB Kinsella-Topping, Michael Moore's mother & Frances Abrams' Tallberg.

David Bristow

Donna S Brown
IHO: Frances IMO: Little John

Phyllis Buck

Ann F Burke

Pamela Burke

Frances S Butler
IMO: Spider and Murtagh

Candy Canzoneri
Celebrating Finn the Wolfhound: Therapy Dog, Beloved Dude

Caring Canines, c/o Aleta Shelton
IMO: Barbara Findlay

Chester Valley Kennel Club, Inc.

Frank & Mary Christian
IMO: Nancy King Aiken

Mary Hagarty Colombo

Christine Davis
IMO: MB Kinsella-Topping In loving memory of Stilton (03/17/11 - 06/09/16)

Mariellen Dentino
IMO: Celia Abrams & MB Kinsella-Topping

Dee DePorto
IMO: McKenna Cottrell

Vivian F Dickson

Donna Drake

Kathleen R Dykstra
IMO: MB Kinsella

Judith M Erskine

Yusoon & Kevin Feeney

Gayle Fikentscher

Patricia F First
IMO: MB Kinsella-Topping

John E Fitzgerald

Pat A Fostvedt-Oxendale

Jack I Freund

Carol Gabriel

Michael J Gallagher
IMO: Pat Lysinger-Patty

Oscar & MB Garcia

Ylva Ghazal

Sheila Gill

Julie Glenn
IMO: MB Kinsella-Topping

Ally Goodrich

Connie Gordon
Connie, Mary, Trish- IMO: MB Kinsella-Topping

Great Lakes Irish Wolfhound Association
IMO: MB Kinsella-Topping

Barabra Hilbish

Shari Irick

Irish Wolfhound Association of America

Michael Moore & Sheri Johnson
In Loving Memory of Margaret Richards

Robert D Johnson

Richard Kallus MD

Roni Kaluza & Randy Valenti

Ed & Linda Karmanna
IMO: Don Ward

Kay F Kater

Rita A Kelley

Cindy Kieler

Kneller Family Foundation

Susan Kretzmer

Ellen Kroll
IMO: MB Kinsella-Topping

Randi L Kutschinski

Margaret M LaRosa

Nancy Latton
IMO: MB Kinsella-Topping

Karen & Steve LeVan
In Fond Memory of Gypsy, Ellie & amp; Zelda. You are missed!

Mindy Levin
IMO: MB Kinsella-Topping, You will be missed!

Jim Lincoln

Maria Lubera
In memory and love for MB Kinsella-Topping

Sherry Mayo
In Loving Memory of GCH Rumon Has It By Irish Stardust

Susan McGreevy

Sharon & Amber McKay-Bennett
IMO: Our Grandmother, Geri Gavin

David & Margie Milne

Jean & Harry Minnier
IMO: MB Kinsella-Topping

Claire Morrison
IMO: Mary B Kinsella-Topping. You are missed!

William Mulheron

Mary Myl
IMO: Declan Managan

Dagmar Neilsen
In loving memory of Oscar Garcia

Linda Nuss

Mary & Margaret O'Brien
IMO: Marilyn Crozier and Dooley

Mary O'Malley
IMO: The one and only MB Kinsella-Topping

Claire M Parker

Barbara Patterson
IMO: MB Kinsella-Topping

Mary Perry
IMO: MB Kinsella-Topping IMO: Crosby IMO: Mr and Mrs Moore

Jeanie Pitzenberger
IMO: MB Kinsella-Topping

Plainfield Kennel Club
IHO: Eileen B Flanagan-in recognition of 20 years of service.

Potomac Valley Irish Wolfhound Club
IHO: Peter Van Brunt

Peter & Florence Prawl

Rose Mary Pries
IMO: MB Kinsella-Topping IMO: Sunkist

Christina Rappel
In Loving Memory of MB Kinsella-Topping from the Rappel Family

Dawn Reinke

Alex Riva

Leslie Rothermal
IMO: Finn, with love from Leslie and Furg

Kim & Austin Schaffter

John Schmidt

Sharon Schneidman

Carole P Silverthorne
IMO: Sarah Dohren's Ri

Connie Smalley

Judy Snyder

South Counties Irish Wolfhound Fanciers Society

Patricia Storkel
IMO: Nancy King Aiken & Janet Souza

Ellen Straw
IMO: Kieran

Kathy Welling
IMO: MB Kinsella-Topping

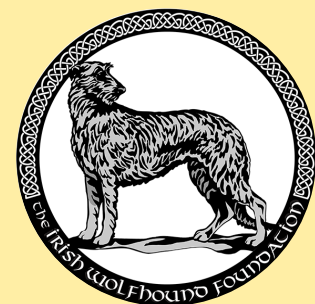
Anne C Williams

Howard B Wittels

Stephen M Wolk MD

Zazzle Inc

Lynn and Gale
IHO: Oscar's love of the breed and his special boy, Battle.



The Irish Wolfhound Foundation, Inc.

Focus
537 Hack man Rd.
Lititz, PA 17543

Change Service Requested



The Irish Wolfhound Foundation
www.iwfoundation.org

2017-2018 IWF Membership

Member name(s) and address:

Name(s):	
Street Address:	
City:	
State:	
Postal Code:	
Country (if outside US):	
Phone (optional):	

Please supply us with your email address so we can spend less money on postage and more on our mission in future:

Payment information (US dollars only, please):

Dues donation:	\$20.00
Additional tax-deductible donation:	
Total enclosed:	

Please complete and return to:

The Irish Wolfhound Foundation
David Milne, Treasurer
150 Creek Rd
Phillipsburg, NJ 08865

Alternatively, you may remit payment using our online Gift Shop at
<http://www.iwfgiftshop.com/minsc/index.php>.

