



February 2024

**VOLUME 5** 

**ISSUE 6** 

# **Expert Excerpts**

# Heart Disease in Dogs

By Dr. Lauren Flanagan of Pepperell (MA) Veterinary Hospital

February is heart health month for humans so we will use this month to discuss heart disease in dogs. While people and dogs do share some heart conditions, we generally are not concerned with coronary artery disease in dogs. Even with elevated cholesterol, dogs rarely develop plaque leading to blockages. Strokes are far less common in dogs than they are in people. When dogs "throw clots" usually it's related to disease causing hyper-coagulability and not cardiac disease (the same is NOT true for our feline patients).

By far the most common heart related disease in dogs is mitral valve insufficiency (MVI). This is usually a degenerative condition of the heart valve that occurs as the dog ages. The leaflets of the valve thicken and cause the mitral valve (the valve that separates the left atrium from the left ventricle of the heart) to become leaky. This leakiness of the valve can occur in any of the other valves of the heart: tricuspid, aortic, and pulmonic, but it is most common in the mitral valve. Congenital defects, infections, and even trauma, can also be the source of leaky valves.

Dilated Cardiomyopathy (DCM) is a condition dogs share with people. This is a condition where the muscles of the heart become thin and weak and therefore cannot pump blood effectively throughout the body. There are many potential causes of DCM including genetics, and also nutrition. We know for some breeds there is a genetic component, and suspect it in others. As far as nutrition, it has been proven in cats that a diet deficient in the amino acid taurine will cause DCM. In some dogs we know taurine plays a role in the development of DCM, and there is suspicion that another amino acid, I-carnitine, plays a role as well. Recently there has been a discussion that grain free diets may promote DCM in dogs. The

DCM is typically seen in middle-aged to older dogs and affects more males. It most commonly affects large-breed dogs; Newfoundlands are especially at risk.

continued on page 3

# What's Inside

Who's at TNP? Available Dogs Update **Page 2** 

Recently Adopted Pages 2, 3 Expert Excerpts
Page 1

Upcoming Events Page 8

### Who's at TNP?

**Goliath** has been neutered and groomed and will soon be in Connecticut after spending some time in foster care. This handsome 3 year old was surrendered due to family hardship and is good with children, other dogs, and loves to ride in the car. Watch for updates in future newsletters and the TNP Facebook page.



TNP provided financial assistance for **Brody** to be neutered and vetted. He is still with his family while he is healing and they decide if they will keep Brody or surrender him to TNP. He needs a follow up blood test at the end of February to monitor his diagnosis of Lyme disease.

Winters are a difficult time for many and TNP continues to respond to requests for food, medical care, and grooming assistance during this time.

#### Interested in adopting from TNP?

All dogs are placed only in APPROVED homes. Email Nancy for an application: nancy@thatnewfoundlandplace.org. Home checks are also required (virtual or in person).

Keep in mind that TNP places dogs in homes that are in the best interest of the dog, but welcomes applicants to express interest in dogs through TNP Facebook posts.

# **Recently Adopted**



Ann and Andy McCann of Newfane, Vermont adopted one-year-old **Sophie** on January 5.

"Considering all the changes, I think she's adjusting well," Andy said. "Once she started using the back door, things went a lot quicker. I don't need to get up in the middle of the night." Sophie still doesn't do stairs so Andy and Ann have moved to a downstairs bedroom to be with her at night.

moved to a downstairs bedroom to be with her at night.

Sophie has become quick buddies with fellow Newf, 10-year-old Olivia, also from TNP. Olivia is very active and has been part of the family for about three years. Murphy, a 9-year-old Aussie/Shepherd mix is also part of the pack. The McCann's adopted him a couple of weeks before Sophie. Murphy is very alert; Andy remarked that nobody sneaks onto property. Two cats, Lulu and Hastur, and three mini sheep round out the full house. So



Sophie (I) & Olivia (r)

Sophie's favorite things include car rides, spending time with the other dogs, and playing in the snow. "I think snow may be a new experience," Andy said. "But she's made some snow angels, dunked her head in it, and seems to like it." At first, Sophie was hesitant to go outside but quickly realized she gets treats when she gets back in, so she's happy to go on walks and play outside.

Sophie has already had her first visit to the vet and did well. "She was calm and liked everyone," Andy said. Vet visits will be the norm for Sophie, who has Subaortic Stenosis (SAS). There is no cure, but Sophie is on beta blockers, which cause the heart to beat more slowly

#### Heart Disease in Dogs - continued from page 1

evidence suggests it's not that the diets are grain free, but rather that something about including peas and lentils promotes the development of DCM. The research is ongoing, and likely we will find there is a multi-factorial cause.

Unfortunately, you can add many other issues to the list for heart problems in dogs, including neoplasia, both primary and metastatic, viral and bacterial infections (including tick borne disease), AV block, atrial

fibrillation (sadly Newfs are prone to this), other arrhythmias or electrical conduction disturbances, fibrosis, hypertrophy (muscle thickening) often secondary to hypertension, and congenital malformations (see article on page 4 for more details).



©Shutterstock

Most patients with cardiac disease present to us with a complaint of coughing and shortness of breath. Depending on the type of heart disease we can see lethargy, pale gums, general weakness, exercise intolerance, collapse, and also sudden death. Many patients have a poor appetite as well. Our patients with MVI are generally older so when they're slowing down on walks people assume it's age. Our DCM patients can be any age exhibiting similar symptoms. Early intervention with any type of heart disease is crucial. There are many medications that can slow down or even reverse heart muscle changes in our patients in hopes of delaying the development of congestive heart failure.

Mitral valve disease is the most common form of heart disease in the dog and is responsible for 75% of canine heart disease. Unfortunately, there is no way to prevent the development of MVI. It can occur in any breed, but small dogs are predisposed. Since DCM is likely multi factorial there are things you can do to reduce risk. Some veterinarians advise owners of at risk breeds to include taurine and l-carnitine supplements in their dog's diet. There are studies that support the use of coenzyme Q-10 for

dogs with heart disease as well. Currently veterinary continued on page 4

#### Recently Adopted - continued from pg 2

and with less force as well as widen veins and arteries to improve blood flow. She will see a



Olivia (I) & Sophie (r)

cardiologist every six months to monitor her condition. The McCanns are experienced with SAS, as their Newf Mona died from the condition at just 2 years old many years ago.

The McCann's have had six Newfs prior to Sophie. They have had other dogs as well, most of which have been adopted from hardship situations. Their first Newf arrived in 1990, shortly after they bought their house. Ann used to have Golden Retrievers, but the Golden Rescue Society felt the yard and fence weren't up to par. A friend knew of a Newf that was in need of a home and Ann and Andy have been Newf owners ever since.

Ann and Andy's goal is to make Sophie happy and she already seems to be living a dream Newfie life. She lives on a quiet dirt road with flat ground for walking and a swimming stream on the property. Plus, canine friends and humans that adore her. All of it makes her heart happy.

#### **Fun Heart Fact**

Dogs are the animal with the largest heart-to-body-mass ratio at .8 percent. Almost all other animals — including elephants, mice and humans — have a .6 percent ratio.

https://news.cvm.ncsu.edu/10amazing-animal-heart-facts/

#### Heart Disease in Dogs - continued from page 3

cardiologists recommend avoiding grain free diets. If your dog is eating grain free, discuss his/her diet with your veterinarian. Together you can decide the risks vs. benefits for your individual pet. Also discuss any supplements you are considering if your dog is taking any medications because interactions can happen.

As with people, keeping your dog trim and active promotes overall good health. In patients with heart disease weight control is critical. With heart disease the heart has to work harder to pump blood throughout the body. If you add weight to this equation, it only aggravates the situation. In addition to watching their weight, most cardiologists recommend a low sodium diet for their patients. Depending on the severity of the heart disease your veterinarian may recommend a more sedentary life style for your pet. Most cardiac patients can still enjoy leisurely walks but any excessive increase in the heart rate will likely need to be avoided.

During your pet's physical your veterinarian will listen to your dog's heart. If he/she hears a murmur (indicating turbulent blood flow) or an arrhythmia, they will likely recommend chest x-rays, an electrocardiogram or ECG (which records the electrical signal from the heart), and ultimately an echocardiogram (which uses sound waves to show how blood flows through the heart and the valves) to identify the source of the abnormal heart sounds. This work up gives your veterinarian the information needed to identify the type and severity of your pet's heart disease and then make medication and diet recommendations accordingly. As mentioned previously, there are many medications that allow for an improved quality of life for dogs with heart disease. Blood work will be necessary to monitor the effects these medications may have on the body, specifically the kidneys. I usually recommend my clients learn how to take their dog's heart rate and resting respiratory rate, as well as learn to recognize a normal breathing pattern for their dog. Changes in any of these vitals could indicate a decompensation of a previously stable heart. Most dogs with heart disease certainly can go on to live a good, happy life and ultimately that's what's important!

Like humans, the incidence of heart disease in dogs increases dramatically with age.



# **More Heart Conditions in Dogs**

Heart disease is a leading cause of death not only in humans but also in animals with 7.8 million dogs – or about ten percent - in the US reported as having cardiovascular disease, according to Pet Health Network. Cardio vascular disease is a common cause of death for Newfoundlands.

In addition to mitral valve insufficiency and dilated cardiomyopathy, there are other conditions that can affect your canine family member. Heart disease is a generic term that refers to any condition that affects your dog's heart or blood vessels and interferes with their normal functions. The disease can either be congenital – present at birth and resulting from a breed's predisposition or passed down from the parents – or acquired – which develop over time and are more common. Acquired conditions result from normal wear and tear, aging, infections, toxin exposure, or nutritional factors. Overweight dogs may be at higher risk for developing more severe symptoms of heart disease.

#### More Heart Conditions in Dogs continued from page 4

#### **Congenital Types of Heart Disease in Dogs**

**Congestive Heart Failure**, a consequence of many types of heart disease, occurs when your dog's heart struggles to pump the proper amount of blood throughout the body. It can also cause increased fluid and pressure in the heart, resulting in leaking into the lungs and negatively impacting your dog's breathing. This condition can affect both sides of the heart and may take years to detect. The condition is not exclusively congenital and can be a secondary condition related to heart disease.

**Pulmonic Stenosis** is a heart defect that obstructs blood flow from the right ventricle to the pulmonary artery and can interfere with blood flow between the heart and the lungs. This defect is frequently seen in Newfoundlands and other breeds.

**Shunts** are abnormal vessels or holes in and around the heart that prevent normal blood circulation. Most cardiac shunts in dogs are congenital.

#### Symptoms of Heart Disease

- Persistent coughing
- Difficulty breathing
- Becoming tired easily (on walks or when playing)
- Weakness/collapse
- Rapid weight loss
- Diarrhea
- Blue-tinged or gray gums
- Bloated/swelling in belly
- Difficulty sleeping/ restlessness
- Fainting

These signs can also be caused by other types of health problems, so a diagnosis from your veterinarian is critical.

**Endocardial fibroelastosis** results in thickening of the membrane lining of the left atrium, left ventricle, and/or mitral valve. Though rare, it affects animals that are usually less than 6 months of age and have signs of left-sided heart failure. Signs, treatment, and outlook are similar to those for DCM.

**Atrial standstill** destroys the muscle wall of the atrium and sometimes the muscle wall of the ventricle as well, which can lead to heart failure. The condition is most common in English Springer Spaniels, Old English Sheepdogs, Shih Tzus, German Shorthaired Pointers, and mixed-breed dogs.

**Arrhythmogenic right ventricular cardiomyopathy** is almost exclusively seen in Boxers, yet is rare. It primarily affects the right side of the heart, characterized by a fibrous and fatty muscle of the right ventricle causing progressive heart failure.

**Duchenne cardiomyopathy** is associated with the X chromosome and has been reported in Golden Retrievers, Irish Terriers, Samoyeds, and Rottweilers. The disease affects not only the heart, but nerve and muscle tissue elsewhere in the body, with tissue changes usually developing by 6 to 7 months of age and decreasing in size over the next 2 years. Heart failure may develop.

**Subaortic Stenosis** (SAS), a congenital heart defect in which the area underneath the aortic valve narrows, causing a degree of blockage of the blood flow through the heart. This can lead to an enlarged heart, predisposing the dog to congestive heart failure or sudden death. It most commonly occurs in large-breed dogs.

#### Acquired Types of Heart Disease in Dogs

**Arrhythmias**– which can also be congenital - occur when the dog's electrical system does not correctly tell the heart to beat. The heart rhythm is too slow, too fast, or irregular, making it difficult for the heart to pump blood to the lungs and rest of the body.

#### More Heart Conditions in Dogs continued from page 5

**Pericardial disease** develops when excess fluid builds up in the sac surrounding the heart. It affects the dog's heartbeat and possibly compression of the heart from fluid pressure. This prevents blood from returning to the heart, and consequently being pumped out as well. The disease is most common in male, middle-aged, large- and giant-breed dogs.

**Heartworm Disease** is spread through the bites of infected mosquitos. Adult heartworms live in the dog's heart and larger blood vessels in the lungs, causing inflammation and damage and can block the flow of blood from the heart into the lungs.

**Myocarditis**, though rare, is inflammation of the heart muscle and death of the heart muscle cells. Causes include viruses (ex. parvovirus), bacteria, protozoa, certain antibiotics, and plant toxins. Mineral deficiency (ex. iron, selenium, or copper) can also result in degeneration of the heart muscle. Deficiencies of vitamin E or selenium may cause death of the heart muscle.

**Endocardium infection** is caused by bacteria carried in the blood and usually involves one of the heart valves, and sometimes the cavity's wall. The infection gradually destroys the valve, preventing it from working properly. In dogs, the aortic and mitral valves are most commonly affected. Male, middle-aged and large breeds are most likely to develop endocarditis.

#### **Heart Disease Treatments**

Since heart disease is a broad term for any condition that interferes with heart functions, treatment can be wide ranging from prescription medicines and supplements to changes in the diet to surgery. With many acquired heart diseases, your veterinarian will likely recommend an angiotensin-converting enzyme inhibitor, or ACE inhibitor, to help reduce stress on the heart by relieving pressure and blood volume.

Additional drugs may also be prescribed to help manage heart disease including beta-blockers, nitroglycerine, and digitalis. These drugs are used to reduce symptoms and improve your dog's quality of life. Diuretics manage fluid accumulation around the lungs.

More information and resources:

https://www.cvcavets.com/canine-heart-diseases/

https://www.merckvetmanual.com/dog-owners/heart-and-blood-vessel-disorders-of-dogs/ acquired-heart-and-blood-vessel-disorders-in-dogs

https://www.akcchf.org/canine-health/your-dogs-health/Heart\_Health.html

https://www.aspcapetinsurance.com/resources/heart-disease-dogs/

https://anatomage.com/top-3-facts-about-canine-dog-cardiovascular-systems/

### Monitor Your Dog's Heart Rate at Home

The veterinary clinic can be a difficult place to get an accurate heart rate for your dog. The car ride, new people and pets, and smells can result in an elevated respiratory rate.

The Resting Respiration Rate is a free app designed by Boehringer Ingelheim Vetmedica, Inc. for Apple and Android users. Owners can track their dog's resting respiration rate at home and communicate the values to their veterinarian, giving a more accurate picture of their dog's cardiovascular health.

https://www.akcchf.org/canine-health/your-dogs-health/Heart\_Health.html

# **Newfies in the White House**

With Presidents Day on February 19th let's take a look at some White House pets. All but three presidents had pets while they were in the White House, and since John Adams moved into the iconic home in 1800 at least 31 dogs have taken up residence, including four Newfoundlands.

The first Newf in the White House was Lara, owned by President James Buchanan during his 1857-1861 presidency and considered a rare breed at the time, having been a recognized breed for only about 50 years. Lara also set a record as the largest dog to live at the White House. Reportedly, she weighed 170 pounds, however, that number could be inflated and could be closer to 120 to 150. Due to her large size and her dark color, many who encountered Lara compared her to a bear, a comparison heard even today by most Newfie owners.



Lara, from *Frank Leslie's Illustrated Newspaper* 

*Frank Leslie's Illustrated Newspaper* printed a special issue in 1856 after a visit to Buchanan's home Wheatland, publishing an image and a description of Lara:

"Prominent also [on his Wheatland estate] is Mr. Buchanan's Newfoundland dog Lara; remarkable for his immense tail and his attachment to his master." The newspaper also correctly predicted that Buchanan would bring Lara with him to the White House. "This dog will hereafter become historical as a resident of the White House."

Lara gained popularity among the American public when she took up residency at the White House and was a loyal companion to Buchanan. She was known to sleep next to Buchanan, comforting and protecting him.

Three other presidents after Buchanan brought Newfies with them to the White House: Ulysses Grant brought Faithful, Rutherford B. Hayes brought Hector, and James Garfield brought Veto. While not a resident, the most recent Newfie to frequent the White House was Brumus, who was owned by Bobby Kennedy's when he was Attorney General of the United States from 1961 to 1964 under his brother, President John F. Kennedy.

Bobby Kennedy and Brumus, circa 1964

https://www.lancasterhistory.org/the-presidents-puppy/#:~:text= Newfoundlands%20became%20a%20popular%20breed,and%20James %20Garfield%20had%20Veto



### Advice from a Newfoundland

Be loyal Delight in the simple joys of a long walk Unleash your talents Hide your favorite snacks Spend time in the water Make new friends Stay close to those you love

https://www.etsy.com/au/listing/645464030/advicefrom-a-newfoundland-newfie-wood



Valentine's Day is February 14, but there are other days in February dedicated to our love for our 4 -legged family members:

• Feb. 3: Doggy Date Night, a chance to spend some quality time with that special dog – or dogs – in your life.

• Feb. 7-14: Have a Heart for Chained Dogs Week, because all dogs deserve to be in a loving home, not chained outside or in a barn.

• Feb. 20: Love Your Pet Day. While most people love their pets *every* day, this is an opportunity to show your pet how much you care. Maybe an extra treat is in order, some additional play time, or extra petting; whatever your pet would appreciate most.

### 2024 TNP Calendar of Events

That Newfoundland Place has announced the dates of events in 2024, all of which will be held rain or shine at 554 Pucker St, Coventry, Connecticut. All events are free to attend.

Open Houses - Noon to 3 PM

April 14 June 2 July 21 August 25

Meet with TNP adopters and folks interested in learning about Newfoundlands as well as TNP rescue staff and possibly some of the dogs available for adoption. Applications for adoption will be available plus lots of great information on the breed. Enjoy pizza and soft drinks. Dogs are not adopted during an Open House; they are meet and greet events only.

*The TNP Annual Reunion and Fundraiser* is tentatively scheduled for **October 6**.

All well behaved, leashed dogs are welcome to attend events, but be mindful of extreme heat.

Watch future newsletters and the TNP Facebook page for more information.



Support TNP through Amex Round-up

https://www.americanexpress.com/en-us/banking/round-up/frequently-asked-questions/

### Follow us! Support Us! Click on any of the icons below to connect to that source.



That Newfoundland Place Inc. is a nonprofit corporation organized and operated exclusively for charitable purposes. Specifically, this organization has been formed to prevent cruelty to animals. Our mission is to offer quality of life to senior dogs of various breeds, to assist in rescue, rehabilitation, and re-homing of dogs in need, with a focus on Newfoundland dogs, and to provide humane education as related to care and life quality. of animals. Cathy Derench, President Newsletter editor and publisher Joanna Dumas: joanna.l.dumas@gmail.com