



What is Canine Dilated Cardiomyopathy?

Canine Dilated Cardiomyopathy (DCM) is a disease of the heart muscle that afflicts Great Danes generally between one and ten years of age. DCM is a hereditary, progressive, and deadly. With DCM the heart muscle stretches and actually thins to accommodate the abnormally large, dilated heart chambers. DCM is a silent killer.

At the beginning of DCM there are no symptoms. This is called the occult stage. By the time the symptoms appear DCM has already progressed into the latter stages.

When DCM is diagnosed in the latter stage the outlook for the dog is poor with an average length of time to death of six months or less.

Signs and Symptoms of Canine Dilated Cardiomyopathy

Dizziness, Fainting, Rapid Breathing, Shortness of Breath, Coughing, Exercise Intolerance, Weight Loss, Poor Appetite, Pale Mucous Membranes in the Mouth, Cold Feet and Cold Legs

Heart Testing (Screening)

Auscultation – Having your veterinarian listen to the heart with a stethoscope to listen for abnormalities such as heart murmurs, ranging from a very faint to very loud sound that sometimes sounds like a whooshing or swishing noise. DCM in the beginning stage may or may not be accompanied by a heart murmur; therefore, auscultation cannot always detect occult DCM.

BNP (Brain Natriuretic Peptide) – Having your veterinarian draw blood and have it tested by BNP, which measures the amount of BNP hormone. BNP is made by the heart and this test will show how well the heart is functioning. Although BNP testing will not detect early stage DCM and has a higher accuracy rate when the heart is actually in failure – end stage DCM.

Echocardiogram (black and white) – Having your veterinarian perform an Echo. An Echocardiogram is a type of ultrasound test that uses high-pitched sound waves to take moving pictures of the heart. The ultrasound computer measures the heart dimensions, chambers, valves, and blood vessels in the heart.

Doppler Echocardiogram (color) – Having your veterinarian perform a Doppler Echo. The Doppler Echo shows moving pictures of heart to show how the blood flows through the heart chambers, heart valves, and blood vessels. The ultrasound computer measures the direction and speed of the blood flowing through the heart and blood vessels. The Doppler Echo is considered the gold-standard for heart testing because it shows more definition in color and because it is the most accurate way to diagnose DCM.

Mode of Inheritance for Canine Dilated Cardiomyopathy

At this time, no one really knows for certain how DCM is inherited. This is why the Canine Geneticists and Canine Cardiologists are working hard to unravel the mystery behind Canine Dilated Cardiomyopathy in the Great Dane.

X-Linked Recessive Theory

Hereditary pattern in which a recessive gene on the X chromosome results in the manifestation of characteristics in male offspring and a carrier state in female offspring

X-Linked Dominant Theory

Describes a dominant trait or disorder caused by a mutation in a gene on the X chromosome. The phenotype is expressed in heterozygous females as well as in hemizygous males (having only one X chromosome); affected males tend to have a more severe phenotype than affected females..

Autosomal Dominant Theory

Dominant inheritance means an abnormal gene from one dog is capable of causing disease even though the matching gene from the other parent is normal. The abnormal gene "dominates" the pair of genes. If just one dog has a dominant gene defect, EACH dog has a 50 percent chance of inheriting the disease.

Autosomal Recessive Theory

A genetic condition that appears only in individuals who have received two copies of an autosomal gene, one copy from each parent. The gene is on an autosome, a nonsex chromosome. The parents are carriers who have only one copy of the gene and do not exhibit the trait because the gene is recessive to its normal counterpart gene.

Tomorrow Today

The researchers are working towards finding the DCM marker gene for this disease in the Great Dane. Because when they do find the marker gene, they will be able to develop a blood test to screen dogs for this deadly, caustic, menacing disease – Canine Dilated Cardiomyopathy.

But the researchers need your help from dog owners and breeders. The scientists and researchers need DCM positive diagnosed dogs to participate in Canine DCM Research by submitting pedigrees, DNA buccal swab samples, blood samples, and tissue samples of any and all DCM affected Great Danes.

Canine Dilated Cardiomyopathy (DCM) in the Great Dane is more pervasive and widespread than any of us ever imagined. The number of Great Danes around the world who are dying from this deadly heart disease is on the increase. More and more young dogs under the age of six years old are dropping dead from heart failure. Canine DCM is being spread far and wide all over the world from one dog family to the next.

Being Proactive in Breeding and Avoiding DCM

It is important to know the dogs in the line (pedigree) of the dog which you plan to breed. This can only be accomplished by honesty and forthrightness from all persons involved.

Ask questions about the dogs behind the dog in question which you plan to breed. What age did they die? What was the cause of the dog's death? Get the full picture of the dog's family, brothers, sisters, aunts, uncles, and grandparents.

What we can do ... Come together as ONE in the Fight

We must come together as ONE in this Fight Against DCM. We can no longer afford to worry about our egos and reputations as dog breeders. We can no longer continue to finger-point and gossip-monger amongst each other.

This is the fight of our dogs' lives - for the sake of our beloved Great Danes. We must come together and work with each other in an atmosphere of openness and honesty.

Please won't you join us?



NO SHAME, NO BLAME
Helping Others, Helps All of Us
Help in the Fight Against Canine Dilated Cardiomyopathy (DCM)

DCM Great Danes on Yahoo
<http://pets.groups.yahoo.com/group/dcmgreatdanes/>

It's a Matter of the HEART