

## **RECOMMENDATIONS FOR THE SCREENING OF NEWFOUNDLAND DOGS FOR THE PRESENCE OF GENETIC HEART DEFECTS (from the club Code Of Ethics).**

The main genetic heart conditions of concern in the Newfoundland dog are Subvalvular Aortic Stenosis (SAS) and Dilated Cardiomyopathy (DCM). SAS is present from birth, but DCM will not develop until some later time of life (anything from 18 months onward). In the absence of a DNA test for either of these diseases, clinical examination to detect presence of either disease, by a suitable qualified Veterinary Surgeon, must suffice.

**Auscultation** (Stethoscope Test) is the simplest method of screening for the presence of SAS (generally, this test is not capable of detecting DCM). However, this test is not absolutely fail safe and a proportion of dogs with mild SAS will not be identified by this method.

**Colour-flow echo-Doppler examination** (Echocardiography) is a more reliable method of diagnosis for heart defects. The anatomy of the inside of the heart can be visualised and the efficiency of contraction and speed of blood flow within the heart can be measured. As well as identifying animals with SAS, this technique will also identify those dogs which have developed signs of DCM. This test is currently the most reliable method available for diagnosis of SAS and DCM (and other heart abnormalities).

### *TO REDUCE THE PERPETUATION OF GENETIC HEART DISEASE IN NEWFOUNDLAND DOGS;*

- i. All breeding stock must be screened prior to being mated for the first time.
- ii. All animals must be at least 12 months old at the time of screening.
- iii. Prior to mating for the first time ALL breeding stock **must** have a colour-flow echo-Doppler examination performed by a Veterinary Surgeon with a Diploma in Veterinary Cardiology (DVC)\* prior to their first use at stud. **Only animals with an anatomically normal Aortic valve and a blood flow across the Aortic valve of no greater than 1.7 metres per second, and showing no evidence of any other inherited disease such as Patent Ductus Arteriosus (PDA) or Dilated Cardiomyopathy (DCM), should be considered for breeding.**
- iv. ALL OTHER NEWFOUNDLAND BREEDING STOCK  
The Newfoundland Club strongly recommends that **all other Newfoundland breeding stock**

*(brood bitches and dogs used at stud prior to March 2000) should undergo a colour-flow echo-Doppler examination performed by a Veterinary Surgeon with a Diploma in Veterinary Cardiology (DVC)\*. **Only animals with an anatomically normal Aortic valve and a blood flow across the Aortic valve of no greater than 1.7 metres per second, and showing no evidence of any other inherited disease such as Patent Ductus Arteriosus (PDA) or Dilated Cardiomyopathy (DCM), should be considered for breeding.***

- v. Alternatively, the less reliable screening method of auscultation may be employed as a first indicator of heart status. Veterinary surgeons must have either a Certificate in Veterinary Cardiology (Cert. VC) a Certificate in small animal Cardiology (Cert. SAC) or Diploma in Veterinary Cardiology (DVC).

Where a score is 1/6 or higher, examination by echocardiography is recommended to determine the cause of the murmur.

- vi As Newfoundlands that have inherited the gene for DCM may develop the disease at any point throughout their lives, it is recommended that breeding stock undergo a colour-flow echo-Doppler examination (performed by a Veterinary Surgeon with a Diploma in Veterinary Cardiology (DVC)\* every two years. ***Those animals which have developed signs of DCM since their last colour-flow echo-Doppler examination should not be bred from.***
- vii Newfoundlands which a Veterinary Cardiologist identifies as having 'equivocal' results may be considered for breeding, *provided the animal is reassessed within 2 years and any progeny are also evaluated as soon as is practicable.*

\* Colour-flow echo-Doppler examination performed by a Veterinary Surgeon with a Certificate in Veterinary Cardiology (Cert.VC) or a Certificate in Small Animal Cardiology (Cert SAC) is an acceptable alternative ONLY IF the vet has undergone further training (in echo-Doppler technique) and has been assessed and 'accredited' by the Veterinary Cardiovascular Society.

#### IV. BITCHES

1. Owners must refrain from breeding from a bitch more than twice in twenty-four months, or whelping prior to two years of age or after her seventh birthday. Nor should she be bred from for the first time over the age of five years. Only in extenuating circumstances and with Veterinary approval obtained in writing, should exceptions be made by application to the Committee.
2. No owner should breed a litter unless they have the time and facilities to devote proper care and attention to the rearing of the puppies and the well-being of the dam. No owner shall provide stud service unless they are satisfied that the owner of the bitch has such time & facilities.
3. No owner should breed a litter unless they are reasonably sure of finding suitable homes for the puppies. No puppies should leave the breeder before the age of SEVEN weeks.
4. Prospective owners of puppies should be screened for suitability, advised of breed characteristics, the need for grooming, exercise and specialised feeding as a puppy, also the advantages & disadvantages of raising and owning a Newfoundland. No puppy should be sold to a home where it will be habitually without human company.
5. Should breeders find hereditary problems occurring in their stock, they should be honest and open about it to ensure that it is not unknowingly perpetuated.