

Home Testing for Proper Hearing

Prior to the onset of clinical testing, Dalmatian breeders had been aware that bilateral deafness was a genetic problem in Dalmatians, but it was not until the early to mid-1970's that breeders throughout the United States gradually became aware of the existence of unilateral deafness in Dals. Through observation of behavioral characteristics in some of their Dals such as a lack of directional hearing (an inability to locate the sources of sounds), breeders realized that perhaps deafness was more of a problem than they had originally thought.

Out of necessity, breeders had developed a variety of home testing procedures to identify bilaterally deaf puppies. One of the easiest tests was to condition pups to respond to a specific sound, or "chow call" when "mom" arrived back in the litter box after a relief outside. The "chow call" could be a whistle, a tongue clicking, a chirping sound, or just calling out "puppy, puppy, puppy" in a singsong voice. This "chow call" was also used when weaning began and solid food was presented to the pups by the breeder. Once the puppies associated the sound with food, each puppy was taken individually to a different room and allowed to explore the new environment. When his attention was fully diverted from the breeder, the familiar "chow call" noise was made. A hearing puppy would immediately throw up his head and come for the food he associated with the noise. Any puppy who continued his exploration without responding to the noise would be marked for further testing. A continued lack of response, especially by the age of six weeks, indicated deafness. If an ensuing veterinary exam confirmed open ear canals and no sign of ear infection, then deafness was confirmed and the affected pup was humanely euthanized.

A soft whistle is an excellent "conditioner," but care must be taken not to combine a whistle with the test of holding a pup up, facing away from you, and lightly whistling. The pup may detect the movement of air and wiggle his ear, thus giving a false impression of hearing response. (If a soft whistle is used, this can later be transferred to field or obedience work with a mechanical whistle – puppies conditioned to associate the whistle with food will continue to respond positively by coming to the owner.)

When doing home testing, care should be taken not to confuse a puppy's response to motion or vibration with a response to sound. Banging on a pan is not a reliable indicator of hearing response – affected puppies rapidly learn to compensate for their defect by becoming more observant of motion, temperature change, and vibrations in their environment. Dropping a pan on the floor combines both motion and vibration. Whistling directed at an ear combines motion (of air) and temperature change.

Testing at home for *unilateral* deafness is extremely difficult and results are not 100% reliable. Keen observation, perfect timing, and developing a conditioned response in the puppy are crucial. The key to unilateral testing is to determine *directional* hearing, i.e., a sound will reach the closer ear a fraction of a second sooner than it reaches the farther ear. The brain computes the difference between the two and locates the source of the sound, or the *direction* from which it comes. Hesitancy in determining the direction of a sound source or inability to locate it at all can indicate **unilateral deafness**.

Testing should start as early as four weeks of age. One of the better tests requires four separate individuals and involves the "chow call" conditioning. The four testers sit at a table at all four parts of

the compass. For test description purposes, let's position tester #1, holding the puppy to be tested, on the west side while the breeder (or individual the puppy most relates the "chow call" to) sits directly opposite on the east side. Tester #2 is on the north side of the table, tester #3 on the south side. The breeder gives the "chow call" in a quiet tone and tester #1 releases the puppy when the puppy demonstrates a desire to go to the breeder. As the puppy heads toward the breeder, tester #2 (on the puppy's left) immediately gives the same "chow call", also in a quiet tone and *without any changes in facial expression or any physical motion*. The puppy should immediately turn his head toward tester #2 and possibly alter his course to go to that tester. This indicates the probable presence of hearing in the puppy's left ear. The procedure is repeated but with tester #3 on the south side (on the puppy's right) quietly giving the "chow call" after the breeder's call. Again, the puppy should alter his course and turn toward tester #3, indicating probable hearing on the right side.

Another test for possible unilateral deafness is the use of floor mounted stereo speakers set at a distance from each other with the puppy in between. A noise that is interesting to the puppy, such as barking, whistling, or animal sounds, is played while the tester transfers the sound from the left to the right speaker and back again. The puppy's response to locate and go to the speaker from which the sound emanates should be *immediate and correct* if not, unilateral deafness should be suspected.

Each breeder has developed his own method for testing throughout the years, but it should be emphasized that appropriate responses indicate *probable* hearing or non-hearing status. The only positive test is the properly administered BAER test with its accompanying certificate and/or a copy of the test results.

[The Dalmatian Club of America](#)

Please submit your comments, requested and suggestions to

The Dalmatian Club of America
Copyright © 1999-2012
The Dalmatian Club of America, Inc.
All Rights Reserved
Page last modified on March 8, 2012