

The English Setter Association's original pilot study into deafness was carried out in 2001. Earlier this year I contacted Julia Freeman at the AHT to request an update on English Setter BAER data to date, below is her report:

"So far, we have tested 323 English Setter puppies (10 weeks old or under) and 56 individuals over 10 weeks of age (most but not all were tested as adults over one year of age, some as pre-breeding screening, but some of the younger ones were tested because the new owner was concerned there was a problem). I had a look at our puppy data (i.e. under 10 weeks of age at testing) for parental hearing status (this data was usually from complete litters), and found the following:

Of the bilaterally deaf puppies, 60% were from unknown to unknown hearing status, 20% were from normal to unknown status parents and 20% were from normal to normal hearing parents (but a very small sample size, so not sure how meaningful this is).

Of the unilaterally deaf puppies, 22.2% were from unknown to unknown hearing status, 11.1% were from normal to unknown status parents and 66.7% were from normal to normal hearing parents (again, a very small sample size....)

Of the normal hearing puppies, 10.0% were from unknown to unknown hearing status, 49.2% were from normal to unknown status parents and 40.8% were from normal to normal hearing parents (a somewhat bigger sample size this time!)

However, even with the small sample sizes, the trend seems to be for better outcomes for the offspring from known (normal) hearing status parents. I have no data from known unilateral or bilateral parents, but it is possible that any of the unknown hearing status parents could have been affected.

I looked on George Strain's website, to see if there was any up to date information regarding the English Setter data over there. The page has references dated to 2012 for other breeds, but I'm not sure quite how up to date the Setter data is, or if he's just added the more recent studies on to the bottom of the list. However, here is the link to the Breed Prevalence page on his website: <http://www.lsu.edu/deafness/incidenc.htm> if you'd like to check it out.

The English Setter Association of America has a deafness database with over 6,500 names on it, but I think this is just a list of dogs who have passed the test to gain their Canine Health Information Centre (C.H.I.C) number (they have several other tests they have to also carry out to gain this number, and I couldn't see anywhere the number who had the BAER test but failed) I'm not sure if they would have this information – the website is <http://www.esaa.com/index.html> if you haven't got this info, and the C.H.I.C. page is <http://www.esaa.com/Health/CHIC.html> “

Deafness in English Setters – BAER testing

Linda Taylor

At the AGM in 1999, it was proposed and agreed that the ESA Health Sub-committee should devise and implement a pilot study to ascertain the incidence of deafness in English Setters. This was achieved with the help of the Animal Health Trust (AHT) who suggested a basic scheme that involved testing ten litters from various bloodlines to give a preliminary estimate of the incidence of deafness in our breed. Although the ESA were refunding all of the fees for testing, there was still a very disappointing response from our members, and consequently the project has taken longer to complete than expected. In fact, only 8 of the 10 proposed litters have been tested, and only four of these have the recommended '7 or more' puppies. To enable a variety of bloodlines to be included, we have been compelled to use smaller litters than were originally planned.

The results are as follows:

8 litters (total 63 puppies)	59 normal hearing	93.65 %
	4 unilaterally deaf	6.35 %

6.35% of puppies were affected.

25% of litters had 1 or more affected puppy.

The AHT have collated all of their BAER test results for English Setter from various testing sites for 2000 and 2001. These figures are made up from adults and single puppies, and include the litter data from the ESA survey:

151 animals tested	138 normal hearing	91.4 %
	11 unilaterally deaf	7.3 %
	2 bilaterally deaf	1.3 %

From this, it seems that 8.6% of tested English Setters have defective hearing.

For comparison, listed below are the most recent results from the English Setter Association of America. These results are from litters where the hearing status of both parents is already known:

211 litters from Normal x Normal parents:

1248 puppies tested	1150 Normal hearing	92.15 %
	81 unilaterally deaf	6.49 %
	17 bilaterally deaf	1.36 %

7.85% of puppies were affected.

29.38% of litters had 1 or more affected puppy.

These levels are closely similar to our British data.

The Americans also have data from 7 litters produced by Normal x Unilateral parents:

45 puppies tested	34 Normal hearing	75.60 %
	9 unilaterally deaf	20.00 %
	2 bilaterally deaf	4.40 %

24% of puppies were affected..

57% of litters had 1 or more affected puppy.

It is clear from the American data that the incidence of both unilateral and bilateral deafness is much higher when one of the parents is unilaterally deaf, suggesting a genetic component to the condition.

For interest, the Dalmatian results for the UK in 2001 are as follows:

426 animals tested	338 Normal hearing	73.9 %
	65 unilaterally deaf	15.3 %
	23 bilaterally deaf	5.4 %

20.7% of animals were affected

As Dalmatian testing has been going on for some time, I presume that the hearing status of all parents is normal. This data indicates a much greater problem with deafness in Dalmatians than in English Setters. I have asked The Dalmatian Club for results of previous years' testing to see whether there is any evidence from their data that breeding from tested normal parents reduces the risk of producing impaired offspring.

This additional Dalmatian information, updated results from America and future data on UK Setters from the AHT will be published in subsequent newsletters.

I would like to thank Lin Sell of the English Setter Association of America and Mary Greening of the Dalmatian Club for allowing me to use their data and Julia Freeman of the Animal Health Trust for all her help and advice.