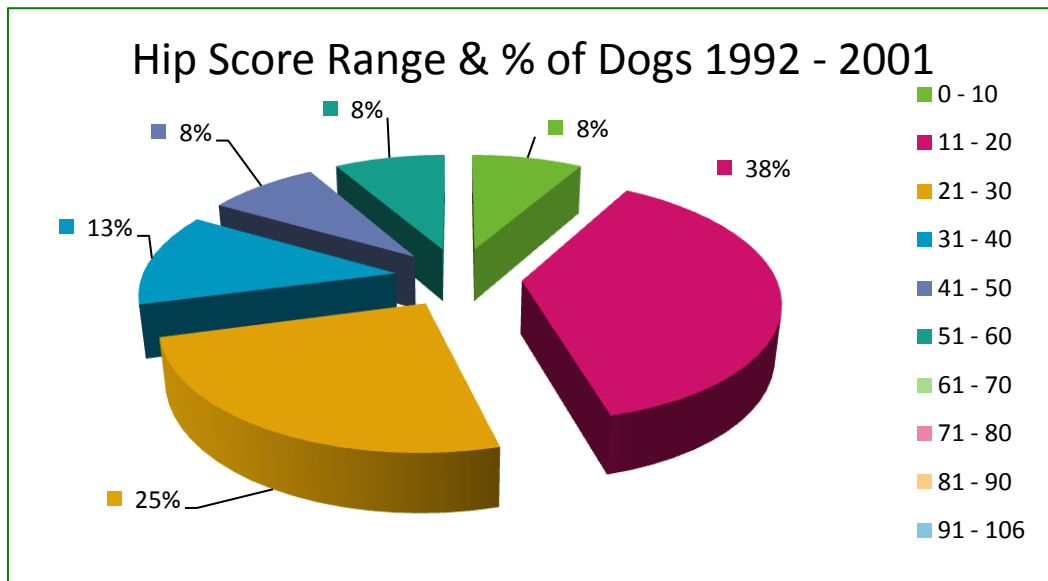


Hip Dysplasia Scheme Scores - Pie-Charts:

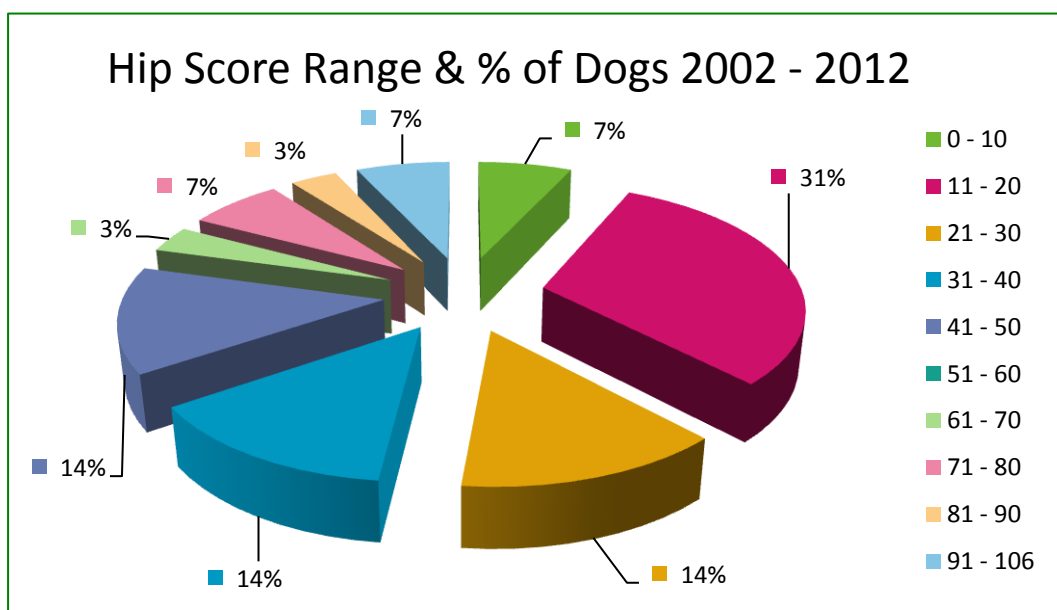
The current BVA/KC scoring scheme for hip dysplasia (HD) has been in operation since 1984 and since then over 100,000 X-rays have been assessed. Dysplasia means abnormal development, and the degree of hip dysplasia present is indicated by a score assigned to each hip. The hip score is the sum of the points awarded for each of nine aspects of the X-rays of both hip joints. The minimum hip score is 0 and the maximum is 106 (53 for each hip). The lower the score the less the degree of hip dysplasia present. An average (or mean) score is calculated for all breeds scored under the scheme and advice for breeders is to use only breeding stock with scores well below the breed mean score.

The following Pie-Charts correspond to Hip Dysplasia Scheme Scores collected from KC Records and down-loaded onto our own Databases & Spreadsheet files. The Breed Club hopes that health screening results down-loaded onto our own files will, in the future, enable us to cross-reference health screening results against, Annual Registration details, allowing us to understand or even perceive when, where, and why, issues of health may have arisen or might be likely to arise in breeding programmes.



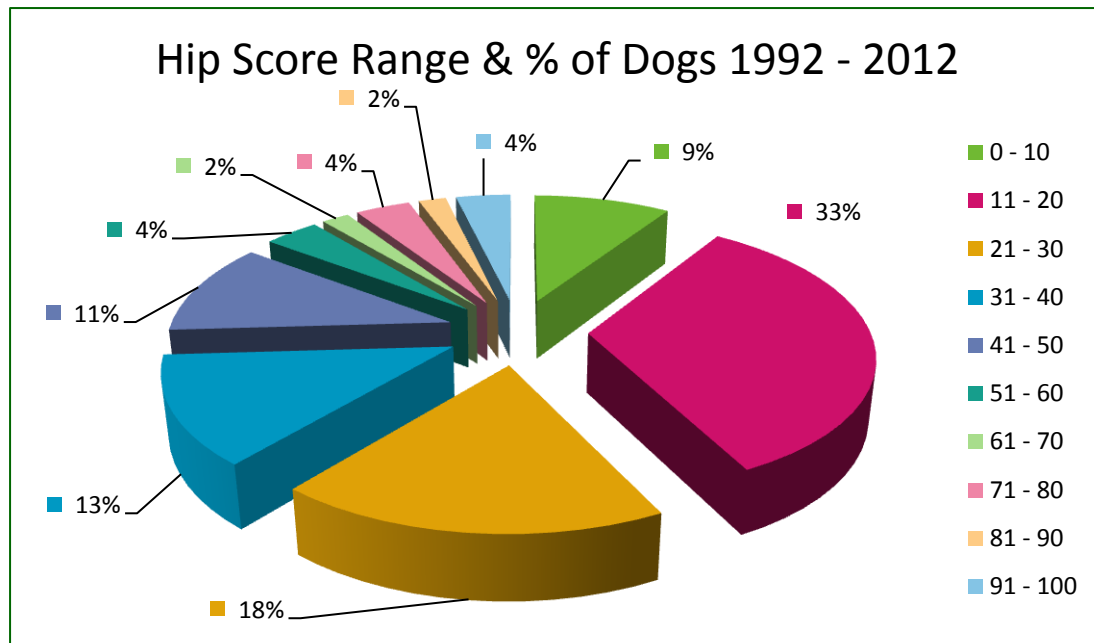
Although the hip scheme has been in operation since 1984, the first Neapolitan Mastiff hip scores submitted by the BVA to the KC, for inclusion in KC Breed Record Supplements, were recorded from 1992. The Pie-Chart above is inclusive of hip score data for the 10 year period 1992 to 2001:

Number of dogs scored: 24. Range of scores: 7-54. Breed Mean Score (BMS): 24. 5 Year BMS (98-02): 30. Median: 21.



The Pie-Chart above is inclusive of hip score data for the 11 year period 2002 to 2012:

Number of dogs scored: 30. Range of scores: 6-97. Breed Mean Score (BMS): 35. 5 Year BMS (08-12): 38. Median: 25.



The Pie-Chart above is inclusive of ALL Hip Score data for our breed - February 1992 to November 2012. Our spreadsheets have enabled us to calculate all the data for this period informing us that:

Number of dogs scored: 54. Range of scores: 6-97. Breed Mean Score (BMS): 30. 5 Year BMS: 38. Median: 23.

The Pie-Chart details the range of scores recorded and the percentage of 54 dogs whose scores fell within those ranges. Interesting to note: Percentage of dogs with hip scores falling within the 0-10 Score Range + % falling within 11-20 Range + % falling within 21-30 Range = Total **60%** of dogs Hip Scored during this period, had a Score of **less than 30**.

TNMC is hopeful that, with the continued participation of our Breed in the Hip Scheme, the percentage of scores falling below 30 will indeed increase over time.

As per the BVA Median verses Mean Hip Scores document, our Median was calculated with equal number of scores being above and falling below our middle of the road score. (26/26 respectively, with 2 being middle of the road) Our **Median** - for 54 dogs scored, has thus been calculated as **23**.

As per the Summary of the BVA Median verses Mean: It must be appreciated that selection of dogs for breeding based on hip scores is not an exact science, since environmental as well as genetic factors are involved in determining the nature of the hip joints. However, the best chance of producing offspring with good hips is to use only parents with low scores, considering the Median as the ideal cut-off rather than the mean. The BVA's advice is now revised to make selection of breeding stock easier and medians as well as the means are published.

TNMC acknowledges and salutes all enthusiasts who continue to submit their Mastini for BVA-KC Hip Scoring. Without your pro-active support of health schemes, issues of health such as hip dysplasia would remain un-checked, un-monitored, and without data for the reference purposes of our Breed Club, Breeders, the Veterinary Profession, and our Canine Governing Body, and without doubt, our Breed would suffer the consequences.

TNMC wishes to acknowledge the British Veterinary Association - BVA as source of the aforementioned documents, and we Thank the BVA for their approval of our utilisation of these documents & the information & data contained therein, here and on our Website.

Denise Bucknall. The Neapolitan Mastiff Club Secretary. Feb 2013