## **Hip Dysplasia Facts**

An Official German Shepherd Dog Federation of South Africa Publication By Frikkie van Kraayenburg BSc(Genetics) and MSc(Mammalogy) Univ. of Pret.

- 1. The term Hip Dysplasia (HD) refers to a developmental abnormality within the hip joints, which may vary from insignificant to debilitating. Hence all schemes are based on a graduated scale of severity. Many old dogs have arthrosis within the hip joints which is unrelated to Hip Dysplasia, but which is often incorrectly interpreted as such.
- 2. Nearly all breeds of dogs are affected by HD. The authoritative Orthopaedic Foundation for Animals (http://www.offa.org/stats\_hip.html) lists 39 breeds of dogs with a higher incidence of HD than German Shepherd Dogs.
- 3. Only a very small proportion of German Shepherd Dogs, certainly less than 1%, develop clinical symptoms, i.e. show lameness due to HD, before old age.
- 4. There is no correlation between radiologically diagnosed HD and the development of clinical symptoms in German Shepherds. Many dogs diagnosed with even severe HD never show a day's lameness or discomfort their entire lives.
- More than 90% of young German Shepherd Dogs that fail the Federation's HD scheme due to looseness of the hip joints without accompanied arthritis, pass the scheme if they are re-examined a year later.
- 6. **HD is not necessary genetic in origin and may even be caused by you, the owner.** Some environmental causes may be due to the following:
  - a. Incorrect feeding, especially:
    - Imbalance in the Calcium: Phosphorous ratio in the food due to additives fed to especially growing dogs. For example, meat may result in too much phosphorous while conversely vitamin additives imbedded in calcium may result in the calcium part of the ratio being too high;
    - ii. Feeding foods too high in protein often result in a too high growth rate and accompanied Panosteitis (Growing Pains), either of which may lead to HD.
    - iii. Overweight due to too much and/or incorrect food.
  - b. Too much, especially forced exercise before the age of 12 months.
  - c. Physical injuries to puppies due to inter alia:
    - i. Running through a doorway and bashing a hip against a door post;
    - ii. Climbing over a fence and snagging its hips on the top;
    - iii. Wiggling through a fence constructed from vertical bars such as a swimming pool fence;
    - iv. Injury in rough play with especially older dogs;
    - v. Doing the "splits" on slippery floors and/or
    - vi. Jumping up and down furniture or high vehicles.
- 7. Misdiagnosis often incorrectly labels a dog as Dysplastic. The vast majority of diagnoses made by non-expert vets submitted to the Federation for evaluation turn out to be incorrect.
- 8. Positioning for the X-ray is critical. Incorrect positioning is the most important cause of misdiagnosis, particularly HD related to subluxation (looseness).

For many years the German Shepherd Dog Federation was the only registering authority in South Africa with a compulsory HD scheme which dogs **had to** pass before breeding. The scheme has been running since 1984. During this time, X-rays of more than 10,000 dogs have been examined.

Because of the high incidence of misdiagnoses by non-expert vets, the Federation only recognises the evaluations by its own evaluator, Prof Robert Kirberger. He is a recognised expert in the field and has been evaluating HD X-rays for more than 20 years.

Most of the above facts have emerged from studies based on the Federation's results over the last 30 years. More than 10,000 dogs have been evaluated. The author originally designed the scheme and has been closely involved with its monitoring.