



CAPE BULLMASTIFF CLUB

MAY 2017 NEWSLETTER

From the Chair: The lead article for May explains in detail about hip and elbow dysplasia in the dog. As this is a very prominent problem in the Bullmastiff and one that ALL Bullmastiff breeders must deal with at some stage I suggest time out to read it:-)

Breeders should have their breeding stock x-rayed by their Veterinarian and then graded by a SAVA Scrutineer prior to breeding at 18 months. The 'breeders' that are failing to do this are doing this magnificent breed an injustice as hip and elbow dysplasia are definitely increasing amongst the South African Bullmastiff due to insufficient care and control by the breeders.

For example - the 7 (seven) South African Rottweilers Clubs have a Breed Council with very strict controls and dogs and the owners &/or breeders that do not adhere to these controls &/or fail them - are "Red Tagged" and the dogs cannot be registered or used for breeding within an approved regime. The 'breeders' names are dispersed within the fraternity and discerning puppy buyers are advised about paying premium rates for the 'unknown'.

Is this a path for us to follow? You decide!

CANINE HIP DYSPLASIA

Part one

By Dr. Angelique Smit

With this article, I am going to try to explain some of the basics about hip dysplasia. I am also going to give some basics about genes, heritability and the environmental factors that

contribute to the development of Canine Hip Dysplasia (CHD). I would also like to explain why I, as Veterinarian, still strongly recommend radiographic hip scoring.

First allow me to give some important definitions:

Hip Dysplasia: The hip joint is a 'ball and socket' joint. In the normal anatomy of the hip joint the femur (the thigh bone) is connected to the pelvis at the hip joint. The almost spherical end of the femur head fits into the acetabulum (a concave socket located in the pelvis). The bony surfaces of the femur head and of the acetabulum are covered by cartilage. While bones provide the strength necessary to support body weight, cartilage ensures a smooth fit and a wide range of motion.

The word 'dysplasia' means abnormality of development. Hip dysplasia is a canine genetic condition in which there is a tendency towards development of hip laxity early in life. Hip dysplasia is not congenital because affected dogs are born with morphologically normal hips. The soft tissues (ligaments and joint capsule) that normally stabilize the hip joint become loose within the first few weeks of life. The consequence of this laxity is that the normally very congruent 'ball and socket' hip joint becomes much less congruent. The ball becomes flattened and deformed and the socket becomes more saucer- shaped. All dogs with hip dysplasia develop secondary osteoarthritis of the affected joint. The clear majority of affected dogs have dysplasia of both hips.



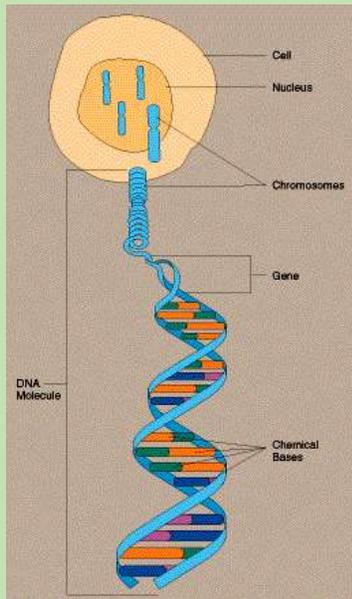
Hip dysplasia in a Labrador Retriever



Normal hips for comparison

Chromosomes and genes:

Chromosomes and DNA – Chromosomes are DNA wrapped around proteins to form an X-shaped structure. The diagram will help you see the relationship.



1. Chromosomes are found in the nucleus
2. Chromosomes are made of DNA
3. Sections of chromosomes are called genes

DNA – deoxyribonucleic acid – is the genetic code that contains all the information needed to build and maintain an organism. Each organism has a distinct number of chromosomes, in humans, every cell contains 46 chromosomes. Other organisms have different numbers, for instance, a dog has 78 chromosomes per cell.

Genotype

The genetic makeup of an individual. Genotype can refer to an organism's entire genetic makeup or the alleles at a particular locus.

Alleles

The alternate forms or varieties of a gene. The alleles for a trait occupy the same locus or position on homologous chromosomes and thus govern the same trait. However, because they are different their action may result in different expressions of that trait.

Phenotype

The observable or detectable characteristics of an individual organism – the detectable expression of a genotype. In other words – what does an organism look like?

Heritability

The degree to which a characteristic is determined by genetics or genes.

So, what about genes?

The reason I am highlighting the roles of genes in Canine Hip Dysplasia (HD) is based on a recent article posted in KUSA news, written by Carol Beuchat. The article is generally very well written, but I do have to disagree on the following statement “the genes that cause hip dysplasia have not been found”. Perhaps I should say that the genes for HD have not been found in ALL dogs, but then again they have not looked for them in ALL dogs. The majority of studies (references available) have focused on breeds like the German Shepherd Dog, Labrador Retriever, Bernese Mountain Dog, Golden Retriever, Rottweiler, Newfoundland and Irish Wolf Hounds.

There is an article published in the Canadian Veterinary Journal August 1995: the pathogenesis and diagnosis of Canine Hip Dysplasia.

A review:

The authors (Fries and Remedios) make the following statement under genetics:

“Hip Dysplasia is an inherited disease. Hip Dysplasia is a polygenic trait **caused by the interaction of hundreds of genes**, each contributing a small part to the disease. At least one pair of genes is believed to be recessive. It is an additive trait where the severity of the individuals disease is determined by the number of ‘affected’ genes present. The genotype determines the genetic blue print for the hips shape, size, anatomical relationships, musculature, innervation and a programme for its growth and re-modelling. The expression of these genes may be modified by environmental factors. Environmental factors do not cause hip dysplasia, but they determine whether the trait is manifested and to what degree”

Please just allow me to add some information from the other more recent article:

Complex disease and phenotype mapping in the domestic dog (Nat Commum 2016 Jan 22)

Hayward JJ, Castelhana MG, Oliviera MC

“ Here we undertake the largest canine genome-wide association study to date, with a panel of over 4200 dogs genotyped at 180000 markets to accelerate mapping efforts. For complex disease we identify loci significantly associated with Hip Dysplasia, Elbow Dysplasia , idiopathic Epilepsy..”

In this study for Hip Dysplasia they used 921 dogs across 69 breeds and found an association reaching genome- wide significance on chromosomes (CFA 28) in the gene CTBP2. For Elbow dysplasia they had 113 cases with 633 controls across 82 breeds and identified chromosome CFA26 and CFA1.

In another study published in Mamm Genome 2014 June 25 (5-6): 262-9, the results was
"Multiple loci associated with canine hip dysplasia in German Shepherd Dogs"

I apologize if this sounds like Greek but just from these two examples in multiple dogs, you
can see **that the genes responsible for hip dysplasia have indeed been found.**

PART TWO WILL BE CONTINUED IN THE JUNE NEWSLETTER



Dr Angelique Smit may be contacted at drangeliquesmit@gmail.com

SHOW RESULTS AND POINTS TO DATE

| | | |
|--------------------|-------------------------------------|-------|
| KUSA Disciplines: | Ch. Juohn Donna Genesis of Lorrel | = 40 |
| KUSA Conformation: | Ch. Chizelhurst Checkmate of Haaita | = 111 |
| | Ch. LaGratitude Atticus Earl | = 40 |
| | Ch. Sanniesebos Spooner | = 21 |
| | Sanniesebos Jaime | = 18 |
| | LaGratitude Boo Radley | = 5 |
| | Juohn Don El Estrado | = 5 |

12/05/2017 NTKC FCI =BOB, CACIB & 2nd in Group 2 Ch. Chizelhurst Checkmate of Haaita

13/05/2017 NTKC Ch. 1 = BOB Ch. Chizelhurst Checkmate of Haaita

13/05/2017 NTKC Ch.2 = RBOB Ch. Chizelhurst Checkmate of Haaita

26/05/2017 KUSA FCI = BOB & CACIB Ch. Chizelhurst Checkmate of Haaita

27/05/2017 KUSA Ch. 1= BOB Ch. Chizelhurst Checkmate of Haaita & 27/05/2017 KUSA
Nationals = Awarded KUSA National Bullmastiff 2017

28/05/ 2017 KUSA Winners = BOB Ch. Chizelhurst Checkmate of Haaita



**CH. CHIZELHUST CHECKMATE OF HAAITA CBA (Ex) CGC (Silver) FCI Gr (Ex) HD A1 A1 CBC
National Bullmastiff 2015 & 2016 KUSA NATIONAL BULLMASTIFF 2017**

Ch. Chizelhurst Checkmate of Haaita has become the first Bullmastiff in the South African history of the breed to qualify for Crufts – 2018



He has also, subject to KUSA confirmation, become the first South African born Bullmastiff to attain Grand Champion status.

Congratulations!

TO 'BALTO' & OWNER / TRAINER RIA STEYN

FAMILY PHOTO'S



Chuck Norris



Duke of Sir Lowry

Could be brothers 😊 but these two stunning brindle boys are from two unrelated bloodlines



As is baby Akhi – the handsome brindle baby

The brindle colouring was the original colour for the Bullmastiff with the fawn and red colours being adopted into the standard as they became popular.

BREEDERS AND FANCIERS ARE REMINDED THAT THERE IS NO SUCH COLOURING AS A 'BLACK' BULLMASTIFF

See below: 1865 – The Poacher by Richard Ansdell - the original brindle colouring



The Poacher - 1865. Richard Ansdell. 'The Keeper's righthand dealing with a poacher and his Lurcher...



You decide 😊

The Breed Standard does not specify any ratio of back ground colour to the black chevrons that form the brindle patterns, however the knowledgeable breeders work for a balance. An accepted compromise of 20% back ground colour to 80% brindle colour is a guideline.

LITTER BIN

Four pups born to Kiala Born in a Getz (HD: D1 C2 ED 2:2) & Eumali Savimbi A2 C1 ED 0:0
Contact Mariaan Gresse – Mariaan.gresse@yahoo.com

Breeders that submit the HD & ED gradings of the sire and dam may request to have their litters advertised either in the Newsletter or on the CBC webpage

ADVERT – KILAAB BULLMASTIFFS - KUSA # 167189



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INTERESTING INFO

Just how popular is the Bullmastiff?



KUSA statistics announce the following:-

In 2012 / 2013 – **292** Bullmastiffs were registered with KUSA

In 2013/2014 – **295** Bullmastiffs were registered with KUSA

In 2015/ 2016 - **323** Bullmastiffs were registered with KUSA

The Bullmastiff does not feature in the “Top Ten” of KUSA favourites. Top spot is taken by the Bulldog with **1315** registrations recorded for 2015/16. The second favourite goes to the Rottweiler with **1212** registrations recorded.

The Bullmastiff stands at # 48 with the American Kennel Club.

THE ONLY TIME YOU SHOULD EVER LOOK BACK IS TO SEE HOW FAR YOU HAVE COME

The information in this magazine is confined to its members. Statements or opinions may be expressed in this communication that are personal to the writers and do not necessarily represent the views of the Club.

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