

## HIP DYSPLASIA

Thanks to: All Creatures Animal HospitalAll Creatures Animal HospitalAll Creatures Animal HospitalAll Creatures Animal Hospital , Amelia, OH

Hip dysplasia is a skeletal defect in dogs. In hip dysplasia, the ball portion (femoral head) of the hip is not securely seated in the socket portion (acetabulum). This condition is especially common in working and sporting breeds of dogs. Certain breeds are definitely predisposed. (see chart from the Orthopedic Foundation for Animals further down this page)

Hip dysplasia is an inherited problem which is not usually present at birth. It develops within the first 6-8 months of life. The exact cause is unknown, but it is generally accepted that the condition is from the combined action of an unknown number of genes. Nutrition and environment are also believed to be contributing factors.

Concerned dog breeders and veterinarians have tried to reduce the incidence of hip dysplasia through selective breeding. X-rays has been performed on potential breeding pairs in an effort to determine the status of the hip joints. Some progress has been made toward reducing the severity and incidence of canine hip dysplasia, but progress has been slow.

Hip dysplasia is defined as a biomechanical disease. That is, the muscles do not develop and reach maturity at the same rate as the bones. Since the hip depends on muscle power to be stable, it can pull apart and trigger a series of events resulting in hip dysplasia.

If a pup is so poorly developed that it cannot walk, then the demands of the musculoskeletal support system are greater than the strength of the surrounding musculature. The muscles and ligaments are unable to maintain the needed relationship between the femoral head and the acetabulum. This results in a partial or incomplete dislocation of the femoral head. The acetabulum is unable to develop properly if the femoral head is dislocated, and is shallower than normal when the pup reaches maturity. When the femoral head is dislocated, its cartilage covering is subjected to wear and tear. This eventually leads to a miss-shaped femoral head, and osteoarthritis or degenerative joint disease.

The degree of hip dysplasia (mild, moderate, or severe) does not effect the signs exhibited by the affected dog. Signs may range from no symptoms to a pronounced disability. Symptoms can appear any time after 4 weeks of age, but are generally not detected, except in severe cases, until after 6 months of age.

Clinical signs of canine hip dysplasia include:

- Lameness after prolonged exercise

A waddling or swaying gait

Morning stiffness

Difficulty in standing up

Reluctance to move

Change in temperament

Pain when moving the hip joints.

Limping

These signs often appear worse on cold damp days.

Early clinical signs are caused by the stretching and tearing of the joint. This pain may disappear as scar tissue forms, and the puppy seems to get better. Unfortunately arthritis continues to get worse and eventually signs of pain appear again. Early treatment will slow or stop the development of arthritis.

The diagnosis of canine hip dysplasia is based upon: history, symptoms, a complete physical exam, and X-rays. X-rays are necessary to confirm hip dysplasia. They can show:

- the shape and depth of the acetabulum

the shape contour and position of the femoral head

degenerative joint disease.

### Treatment

Hip dysplasia can be treated surgically, medically, or a combination of both. There is no cure for hip dysplasia, but with appropriate veterinary care affected dogs can live long, healthy, active lives. Non-surgical treatment can include:

- enforced cage rest when the dog is experiencing discomfort

mild analgesics

anti-inflammatory drugs.

There are several surgical procedures that can be attempted in young dogs, and if the disease is not severe:

- Cutting of the femur and/or the pelvis and repositioning the joint. This is recommended for dogs 6-12 months of age only.

Cutting the pectineus muscle. This is useful in relieving pain in certain cases, but has no effect upon the progression of the disease.

Removal of the femoral head and neck. and formation of a "false joint" between the proximal femur and the pelvic musculature. Small and medium sized dogs usually do better with this procedure than larger dogs.

Total hip replacement. Although this procedure is expensive, many dogs are able to return to full activity .

### HOW PREVALENT IS HIP DYSPLASIA

Any dog can have dysplasia. But, based on test results from the Orthopedic Foundation for Animals, the highest

incidence of dysplasia is as follows: *(It should be obvious that all sizes of breeds are affected, though there is a higher incidence in some of the largest breeds.)*

1. Bulldog

Otterhound

Cumberland Spaniel

St. Bernard

Boykin Spaniel

American Bulldog

Newfoundland

Staffordshire Terrier

BullMastiff

Bloodhound

Fila Brasileiro

Chesapeake Bay REtriever

Gordon Setter

Goldon Retriever

Chow Chow

Field Spaniel

Staffordshire Bull Terrier

Rottweiler

Kuvasz

Norwegian Elkhound

Mastiff

Giant Schnauzer

Old English Sheepdog

German Shephard

Bernese Mountain Dog

English Setter

Spinone

American Pit Bull Terrier

Beagle

Welsh Corgi Pembroke

Welsh Springer Spaniel

Black and Tan Coonhound

Shih Tzu

Briard

Brittany

Greater Swill Mountain Dog

Welsh Corgi Cardigan

Bouvier Des Flandres

English Springer Spaniel

Irish Water Spaniel

Pudel Pointer

Portugese Water dog

Curley Coated Retriever

Akita

Chinese Shar Pei

Australian Cattle Dog

Airdale Terrier

Poodle

Leonberger

Komondor

Labrador Retriever

Irish Setter

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Akita

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