

ELBOW DYSPLASIA

About the Diagnosis

In dogs and cats, the elbow is the joint in the front leg (forelimb) that is closest to the chest and that points towards the dog's hind end. Elbow dysplasia is a general term which indicates a malformed elbow joint. Elbow dysplasia includes four problems that can contribute to malformation and arthritis of the elbow. All four conditions result from abnormal growth of the bones of the elbow. Elbow dysplasia is an inherited condition and may occur in one or both elbows. Elbow dysplasia is one of the most common causes of front leg limping (forelimb lameness) in large and giant breed dogs. Breeds known to have an increased occurrence are the Labrador retriever, rottweiler, golden retriever, German shepherd, Bernese mountain dog, chow chow, bearded collie, and Newfoundland. The diagnosis is most commonly made in young dogs from 8 to 18 months of age, although mild cases may not be detected until arthritis becomes apparent when the dog is older.

The four abnormalities of elbow dysplasia are listed as follows. More than one condition may be present in the same joint:

- Ununited anconeal process—a projection on the ulna, the bone at the back of the elbow, does not fuse properly to the main part of the bone.
- Osteochondritis dissecans—a defect in the cartilage of the joint due to growth abnormalities. Some of the cartilage is not attached to the underlying bone and a loose cartilage flap forms.
- Fragmented medial coronoid process—a projection of bone on the inside edge of the ulna becomes fractured due to osteochondritis.
- Incongruity—the surfaces of the elbow joint do not fit together perfectly due to bone abnormalities.

Initially, the lameness may only be detected as stiffness after rest. Later, foreleg lameness may be apparent all the time or intermittently. Exercise will usually make the lameness worse.

There is no way to tell which of these four components, if any, are present in a dog that is limping. However, it is important to determine whether elbow dysplasia is present and, if so, to what extent because the treatment approach and prognosis (outlook for return to normal) vary depending on the severity of the problem.

As a first step, a veterinary examination which includes manipulation of the elbow can localize the pain to the elbow joint. This is important because a dog limps on a leg in the exact same way whether the problem is in the shoulder, the elbow, or the paw. A series of x-rays (usually four views) of the elbow is taken to detect the exact abnormality present. Your pet usually will need to be sedated for these x-rays since careful positioning and motionlessness are required. In some cases, laboratory examination of a small amount of joint fluid may help confirm the diagnosis. Arthroscopy can also be used for diagnosis. Both elbow joints should be examined since about 50% of affected dogs have the condition in both elbows, although only one leg may appear painful at first.

Living with the Diagnosis

Weight control is important in dogs that are overweight to any degree to reduce the stress and strain on the joints.

TREATMENT

Elbow dysplasia is often compared to having a stone in one's shoe, where the stone is a fragment of bone or cartilage and the shoe is the elbow joint. For the best long-term outcome surgery is virtually always the best treatment, and in most cases, it is better to have it be performed early on (within days or weeks of the diagnosis of elbow dysplasia) in order to minimize the risk of permanent damage, scarring, or arthritis inside the joint. As an exception, some older pets with longstanding elbow dysplasia and advanced arthritis by the time the problem is attended to may not benefit from surgery, if the secondary arthritis is severe.

After surgery, your pet's activity must be severely limited for a minimum of four weeks to allow healing of the cartilage in the joint. Exercise should be limited to leash walks.

Analgesic and anti-inflammatory medications can be used for relieving pain due to elbow dysplasia and the resulting arthritis. It is essential **NOT** to use certain over-the-counter anti-inflammatory drugs. Ibuprofen (Advil, Motrin, and others), naproxen (Naprosyn, Aleve), and many others can severely damage the lining of dogs'

stomachs and are considered **TOXIC** to dogs. If your dog seems uncomfortable after surgery, talk to your veterinarian immediately.

DOs

- Restrict exercise for at least 4 weeks after surgery.
- Use analgesic medication as recommended by your veterinarian for pain.
- Check your pet's surgical incision daily for redness, swelling, or discharge.

DON'Ts

- Do not use over-the-counter human medications like anti-inflammatories without first discussing them with your veterinarian. Many of these products, which may be perfectly safe for humans, are toxic to dogs.
- Don't bathe your pet until the stitches have been removed.
- Do not let your pet lick or chew the incision.

When to Call Your Veterinarian

- If there is swelling at or drainage from the surgical incision or if your pet is licking the incision.
- Lack of appetite or vomiting may be signs of stomach irritation, which can be a side effect of anti-inflammatory pain medications.

Signs to Watch For

Foreleg lameness that becomes progressively worse in young large breed dogs.

Routine Follow-Up

- After surgery, have stitches removed in 10 to 14 days.

Additional Information

- Do not breed affected animals since elbow dysplasia is an inherited disorder.
- In puppies, rapid growth and excess feeding of highly nutritious diets may be related to the development of the joint abnormalities and must be avoided to reduce the risk of elbow dysplasia.