Home Dental Care for Puppies

Why should I brush my pets' teeth?

Daily removal of plaque is the key to an effective oral hygiene program. Unless your dog's teeth are brushed daily, plaque will build up at the gum line. Eventually calculus forms, which further irritates the gums, and infection progresses to loosen and destroy the attachment of the adult tooth. In addition to loose teeth, infection under the gum line can spread to the liver, kidneys and heart.

How can I brush my dog's teeth?

It is usually a very easy and, if approached in an up-beat manner, fun procedure. First pick a soft bristled or finger toothbrush. A bristled toothbrush made specifically for dogs is best because they are angled to easily reach the back teeth and the bristles are quite soft. You will need enzymatic toothpaste from your veterinarian. Do not use human toothpaste because it contains detergents that should not be swallowed. Push the toothpaste down in between the bristles. This allows the paste to spend the most time next to the teeth. Approach your pet in a happy and gentle manner. Start slowly, you can use a washcloth to wipe the teeth front and back in the same manner you will be using the brush. Do this twice a day for two weeks. Couple it with something pleasant for your pet like a treat or play session. After two weeks you should introduce the toothbrush with only water on the bristles. Start brushing daily for several days. When your dog accepts this brushing, add the toothpaste.

A Comprehensive Oral Health Assessment and Treatment: COHAT

General anesthesia

- General anesthesia is required to perform a thorough oral exam and cleaning as well as obtain dental X-rays.
- Anesthetic monitoring equipment includes EKG to monitor the heart, blood pressure monitoring, pulse oximetry to monitor oxygenation and ETCO2 to monitor carbon dioxide levels.

Anesthetic safety and supportive techniques

- The use of an IV catheter allows for fluid support and rapid medication administration, if necessary.
- A Bair Hugger blanket is used during the procedure to support core body temperature, which is essential for safe anesthesia and recovery.

Full-mouth dental X-rays

- Radiographs (X-rays) are obtained to further detail the health of the teeth below the gum line and determine the extent of periodontal disease. Studies show that less than 50 percent of all dental problems in dogs and cats can be identified without dental X-rays.
- Full-mouth dental X-rays are especially important for small breed dogs and cats or those pets with a history of periodontal disease.

Dental cleaning and treatment

- A registered veterinary technician (RVT) performs the dental cleaning procedure, which includes ultrasonic and hand scaling, polishing and complete dental charting.

Oral surgery and extractions

- After the dental X-rays are reviewed by the veterinarian, recommendations for extractions or oral surgery are discussed with the owner by phone.
- All oral surgery and extractions are performed by the veterinarian.
- Pre-emptive pain control, including dental nerve blocks and systemic pain medication, allows your pet to remain comfortable during and after recovery.

What to expect after the procedure:

- Our staff will review tooth brushing and home care recommendations with you to maintain your pet's oral health.
- Most pets are sedate for the evening following a dental procedure, but will return to normal behavior the next day.
- We may recommend feeding a soft diet for a few days for pets requiring oral surgery. These pets are also sent home with pain medication and antibiotics.

Canine Heartworm Disease

What causes heartworm disease?
Heartworm disease (dirofilariasis) is a serious and potentially fatal disease in dogs. It is caused by a parasite called *Dirofilaria immitis*.

How do heartworms get into the heart?
As many as 30 species of mosquitoes can transmit heartworms. The female mosquito bites the infected dog and ingests the microfilariae during a blood meal. The microfilariae develop for 10 to 30 days and then enter the mouth of the mosquito. The microfilariae are now called infective larvae because at this stage of development, they will grow to adulthood when they enter a dog. When fully developed, the infective larvae enter the bloodstream and move to the heart and pulmonary arteries, where they grow to maturity in 4-6 months and start reproducing (the female produces millions of microfilaria), thereby completing the full life cycle. They can survive up to five years. The immature heartworms cannot complete the entire life cycle in the dog; the mosquito is required for some stages of the heartworm life cycle. The microfilaria are therefore not infective (cannot grow to adulthood) in the dog - though they do cause problems.

Where are heartworm infestations found?
Canine heartworm disease occurs all over the world. The disease is spreading and is now found in most regions of the United States and Canada, particularly where mosquitoes are prevalent.

Canine Heartworm Disease

What do heartworms do to the dog?

Adult worms: Adult worms cause disease by clogging the heart and major blood vessels leading from the heart. By clogging the blood vessels, the blood supply to the organs of the body is reduced, particularly the lungs, liver and kidneys, leading to malfunction of these organs. Most dogs infected with heartworms do not show any signs of disease for as long as two years. Unfortunately, by the time signs are seen, the disease is well advanced. The signs of heartworm disease depend on the number of adult worms present, the location of the worms, the duration the worms have been present, and the degree of damage to the heart, lungs, liver, and kidneys. The most obvious signs are: a soft, dry, chronic cough, shortness of breath, weakness, nervousness, listlessness, and loss of stamina. All of these signs are most noticeable following exercise, when some dogs may even faint. Listening to the chest with a stethoscope often reveals abnormal lung and heart sounds. In advanced cases, congestive heart failure may be apparent and the abdomen and legs will swell from fluid accumulation. There may also be evidence of weight loss, poor condition, and anemia. Severely infected dogs may die suddenly during exercise or excitement.

Microfilariae (Young worms): Microfilariae circulate throughout the body but remain primarily in the small blood vessels. Because they are as wide as the small vessels, they may block blood flow. The body cells being supplied by these vessels are deprived of the nutrients and oxygen normally supplied by the blood. The lungs and liver are primarily affected.

How is heartworm infection diagnosed?

In most cases, diagnosis of heartworm disease can be made by a blood test that can be run in the veterinary hospital or sent to a veterinary laboratory.

How can I prevent this from happening?

It is essential to begin a heartworm prevention program. Sentinel is given once a month and will prevent heartworm infection. Annual heartworm testing must be done in conjunction for a complete prevention program.

Canine Hip Dysplasia

What is hip dysplasia?

Hip dysplasia is defined as a deformity of the coxofemoral (hip) joint that occurs during the growth period. Hip dysplasia is a hereditary condition that creates a poorly fitting hip joint. As the dog walks on this joint, arthritis will eventually develop, causing pain in the joint. The degree of lameness that occurs is usually dependent upon the extent of arthritic changes in the hip joint.

Is this found in certain breeds of dogs?

Most breeds of dogs can be affected with hip dysplasia although it is predominantly seen in the larger breeds of dogs, such as the German Shepherd, St. Bernard, Labrador and Golden Retriever, Pointers, and Setters. There is equal distribution of the disease between male and female dogs. The disease is also seen frequently in chondrodysplastic breeds like Pugs, Corgis, and Boston terriers.

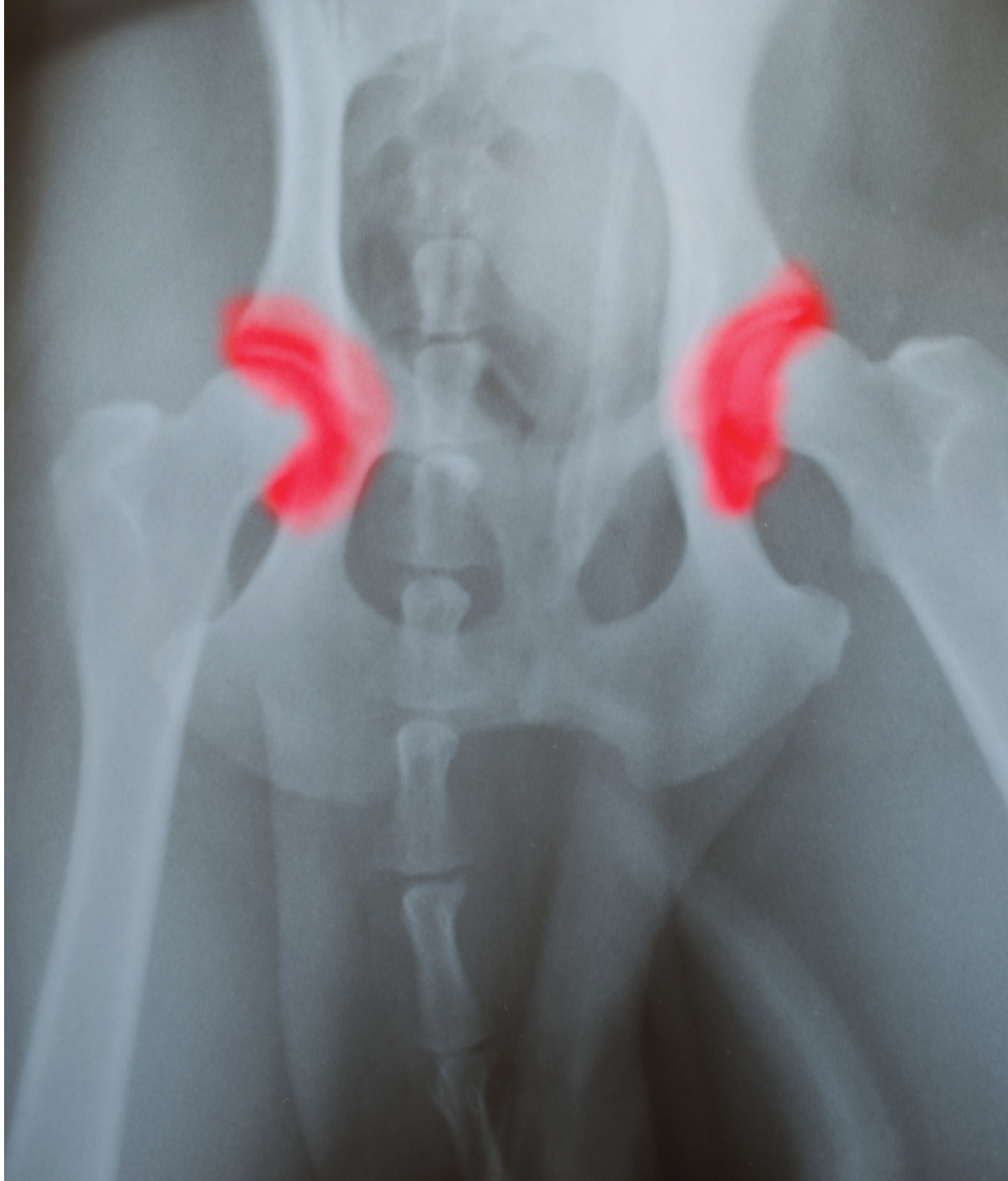
What are the clinical signs and when do they occur?

The typical clinical signs of hip dysplasia are rear leg pain, incoordination, and a reluctance to rise. Wasting of the large muscle groups in the rear limbs may eventually develop. Most owners report that the dog has had difficulty in rising from a lying position for a period of weeks or months. Lameness and pain subsequently develop. Again, the severity of signs and progression of the disease usually correlate with the extent of arthritis in the joint. Clinical signs can occur as early as 4-6 weeks of age, but most dogs manifest the disease with lameness around one to two years of age. Dogs with mild hip dysplasia and minimal arthritis may not experience pain and lameness until they reach 6-10 years of age.

Canine Hip Dysplasia

How is it diagnosed?

Tentative diagnosis of hip dysplasia is made on the basis of history, breed, and clinical signs. A large breed dog that has been slow to rise for several months is highly suspect for hip dysplasia. A dog that refuses to rise should also be considered a candidate. Because the clinical signs may mimic other diseases, final diagnosis of hip dysplasia can only be made on the basis of specific radiographic (x-ray) findings. To obtain the proper radiographs, dogs must be carefully positioned on the radiographic table. This procedure requires the use of a short-acting anesthetic. The radiographs are evaluated for abnormal shape of the hip joint and for degenerative changes (arthritis). It is recommended that all large breed dogs as well as chondrodysplastic breeds have hip radiographs around six months of age in order to get an idea of the hip structure.



Canine Hip Dysplasia

How is it treated?

The degree of clinical signs and arthritic changes in the joints determine the specific approach to therapy. Treatment of hip dysplasia may involve the use of drugs, surgery or both. The options are as follows:

1. Anti-Inflammatory Medications

Several drugs will give relief from pain. There is a very effective prescription non-steroidal pain reliever called Rimadyl that is associated with fewer side affects than other drugs. Aspirin or other non-steroidal drugs may work well in some dogs. Most have some side effects and require administration once or twice daily. Many dogs have severe stomach irritation secondary to these drugs. Unfortunately, it is not possible to predict which dogs will have side affects.

2. Nutriceutical Products

The two products that we recommend are Adequan (polysulfated glycosaminoglycans) and Dasuquin (a combination of chondroitin sulfate and glucosamine). The purpose of these products is to provide the raw materials necessary for formation of joint fluid and cartilage. There are a tremendous number of products on the market that claim to be as efficacious as Dasuquin. Dasuquin is the only product in which the manufacturer has been willing to subject it to stringent clinical studies. We know the bioavailability of this product is superior to over the counter products, therefore this is the only product that we can confidently recommend.

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3. Surgery

There are three main procedures: femoral head ostectomy (ball removal), triple pelvic osteotomy, and hip joint replacement.

- *Femoral head ostectomy* (FHO) is another choice. The hip joint is a ball and socket joint. FHO is the removal of the ball part of the joint. This gives excellent results in small dogs because a functional "false joint" forms. However, some large dogs may not form this "false joint" very well. This procedure is usually used in large dogs if arthritis is very severe, if the hip dislocates, or if the expense of the other procedures is prohibitive.
- *Triple pelvic osteotomy* is a procedure in which the pelvis is cut in three places around the hip joint. The bone is rotated to create better alignment with the femoral head (the ball). It is reattached so that the joint functions in a more normal fashion without looseness and pain. This should only be performed in a dog with no arthritic changes in the joint and is usually reserved for dogs less than one year of age.
- *Hip joint replacement* is possible, as is done in humans. A stainless steel ball and socket are attached to the pelvis and femur in place of the abnormal ones. It is an expensive procedure, but it will give many years of pain-free use of the hips.

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4. Acupuncture

While acupuncture isn't appropriate for every dog or every situation, it can safely be used to treat dogs with a variety of health conditions, especially those suffering from pain or inflammation. Dogs with arthritis, digestive problems, kidney disease, hip dysplasia, epilepsy, asthma and certain neurological disorders can all benefit from acupuncture.

Acupuncture works by stimulating certain areas of a dog’s body that contain large numbers of nerves. This can enhance blood circulation, decrease muscle spasms and cause the release of pain-relieving hormones (endorphins) in the brain.

Canine Hip Dysplasia

I am considering breeding my dog. Can anything be done to prevent hip dysplasia in the puppies?

Research has shown that the cause of hip dysplasia is related to a combination of genetic and environmental factors. The disease is known to be an inherited condition and the genetics of hip dysplasia are extremely complicated. In addition, environmental factors such as overfeeding and excessive exercise can predispose a dog (especially growing puppies) to developing hip dysplasia. Because the inheritance of the disease is so complicated, many questions remain regarding eradication of the disease.

Here are some practical suggestions:

1. Have your dog radiographed before breeding to be sure the hips are normal. If they are not, this dog should not be bred. We also recommend radiographs of the pelvis at the time of neutering to screen for hip dysplasia.
2. Consider a feeding program to slow growth. There is a growing body of evidence indicating that dogs that grow very rapidly are more likely to have hip dysplasia. Many authorities recommend feeding an adult-type food to puppies of high-risk breeds so their growth is slower. Science Diet manufactures a brand of food specifically formulated for large breed puppies and is an excellent diet to start them on. They will still reach their full genetic body size, but just not as rapidly.
3. Avoid excessive exercise in a growing puppy. Any abnormality in the structure of the hip joint is magnified if excessive running and jumping occur. It is not necessary to treat your puppy as it were handicapped, but long sessions of running or chasing thrown objects can be detrimental to joints. Consistent and moderate exercise will help build muscle mass and support the joints.