

Heartworm disease is a serious disease that affects dogs. It is caused by a parasite or worm that can grow up to 12 inches or more in length and lodges in the heart and neighbouring blood vessels.

The disease was once confined to the tropical coastal areas of North America but is now widespread throughout the United States. Every state east of the Rocky Mountains has reported cases of heartworm. In Canada the first case of heartworm was diagnosed in 1974 in a coyote that had been shot in southwestern Ontario. Afterwards a survey of blood samples of pound dogs in Windsor showed several positive results for heartworm.

At the present time the disease has been reported in most Canadian provinces with the major concentration in southwestern Ontario. Heartworm occurs primarily in dogs, but on occasion has infected both cats and humans. These cases are rare, and dogs are the main reservoir. The infection is acquired through the bite of an infected mosquito. A mosquito becomes infected by taking a blood meal from an infected dog. The mosquito then bites another dog, injecting heartworm larvae (immature heartworm). These larvae grow in the tissues near the mosquito bite for about two to three months after which time they enter the blood vessels and settle in the pulmonary veins adjacent to the heart. Five to six months after infection these heartworms begin to produce larvae which travel in the blood vessels to skin from where they can infect another mosquito when it bites the dog. This mosquito then flies off and bites another dog. This is how heartworm is transmitted from a carrier dog to a noninfected dog.

Treatment of heartworm is difficult and is hazardous in an infected dog. Fragments of dying worms can cause obstruction (emboli) in the blood vessels of the lungs causing serious complications. If a dog is already in heart failure due to heartworm disease they cannot tolerate the stress of treatment. Prevention is more practical and safer. Heartworm preventive medication is given once a month either as a chewable treat or in combination with flea medication applied to the skin. It is recommended to give heartworm preventive medication during the summer and fall months, during mosquito season and up to 30 days after the end of mosquito season. In Simcoe County, this is the six months from June 1 to Nov 1.

Before preventive medication is used it is important to ensure heartworm infection is not already present with a simple blood test. Heartworm preventive medication given to an already infected dog can cause an adverse reaction and this must be avoided. Many clinics now use an in clinic "Snap" test which allows results to be available within 10 minutes. The blood test may also be sent to an outside laboratory, with results available the next day. With regular blood testing and use of preventive medication we can keep the incidence of heartworm low in the Barrie area.