



- (1) Adult male and female *Ancylostoma caninum* are blood-feeders that live attached to the mucosa of the small intestine of dogs. Female hookworms may produce thousands of eggs per day after mating.
- (2) Eggs are passed out in the feces of a dog. These may be detected using a qualitative fecal floatation or enumerated using a quantitative fecal test.
- (3) In the environment/soil, temperature-dependent larval development to the infective third larval stage occurs in 5 - 10 days.
- (4) Ingested third stage larvae may migrate through the lungs, be coughed up, swallowed and develop to adults in the small intestine, or they may develop directly to adults in the small intestine. Time from infection to production of eggs can be as short as 14 days.
- (5) Third stage larvae may also penetrate intact canine and human skin. In dogs, larvae often enter between the toes and follow the same pulmonary-tracheal-intestinal pathway to become adults in the small intestine.
- (6) In humans, skin penetration causes cutaneous larva migrans.
- (7) In dogs over 3 months of age, some larvae migrate to the muscles and other organs, where they pause their development and become inactive.
- (8) These larvae may become reactivated when adults in the small intestine are eliminated by anthelmintic treatment. Reactivated larvae may migrate back to the lumen of the intestines and develop to adults. This phenomenon is called "larval leak" and must be differentiated from true resistance.
- (9) Additionally, reactivation of tissue larvae during whelping results in their migration to the mammary glands and being passed into the milk to nursing puppies.