



EMERGING RISK: *ECHINOCOCCUS MULTILOCULARIS* IN ONTARIO



Echinococcus multilocularis (EM) is also known as the fox tapeworm. Foxes, coyotes and other canids (including domestic dogs), and rarely cats, can carry adult worms in their intestinal tracts and shed the tapeworm eggs in their feces.



The eggs are usually ingested by rodents or other small mammals. They hatch in the intestine, and the larvae then migrate primarily to the liver and form budding cysts that behave like a malignant tumour. This is called **alveolar echinococcosis (AE)**. Sometimes AE occurs in dogs too.



Humans are an accidental intermediate host for EM. If a person ingests the eggs from the feces of an infected dog or wild canid, then AE can develop. The cysts grow slowly, so the clinical incubation period can be 5-15 years. **AE can be very difficult to treat** due to the invasive growth of the parasitic cysts.

FACT:

EM was known to exist in parts of central and northern Canada for decades, but until 2012 locally-acquired cases had never been detected in Ontario (people or animals)

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Since 2012, a total of 5 dogs, 2 lemurs and a chipmunk have been diagnosed with AE in Ontario. Only one dog had a history of travel outside the province

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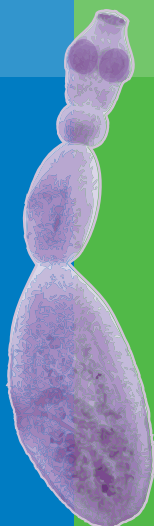
Dogs are thought to develop AE primarily by ingesting large numbers of EM eggs in the environment, which suggests that EM is likely now present in Ontario wildlife

THROUGH A UNIVERSITY OF GUELPH RESEARCH STUDY CO-SPONSORED BY OAHN AND BAYER ANIMAL HEALTH,
**FECAL SHEDDING OF EM WAS CONFIRMED IN FOXES AND COYOTES
IN PARTS OF SOUTHERN AND EASTERN ONTARIO IN 2016.**

ADDITIONAL TESTING WILL BE DONE IN 2017.

WHAT CAN VETERINARIANS DO?

- ✓ Emphasize the importance of routine fecal exams for dogs at high risk of exposure (e.g. dogs that hunt small mammals, or dogs imported from endemic areas) – but remember that the eggs can be hard to detect
- ✓ Pets shedding tapeworm eggs or at high risk of exposure should be dewormed monthly with praziquantel
- ✓ Unusual masses in the liver or elsewhere in the body should be tested to confirm they are not AE



WHAT CAN OWNERS DO?

- ✓ Don't allow pets to hunt or scavenge other animals, and don't allow hunting dogs to eat raw offal
- ✓ Pick up pet feces promptly to prevent contamination of the environment, and wash hands thoroughly when done
- ✓ If working with soil that may be contaminated with feces from dogs, cats or wild canids, wear gloves and wash hands thoroughly when done

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