Echinococcal Disease Information, Safety and Prevention Sheet

It is important to understand the safe handling procedures to minimize your exposure to potential parasites when collecting and/or swabbing canid samples for DNA analysis. This information is also relevant for dog owners, hunters, trappers and farmers.

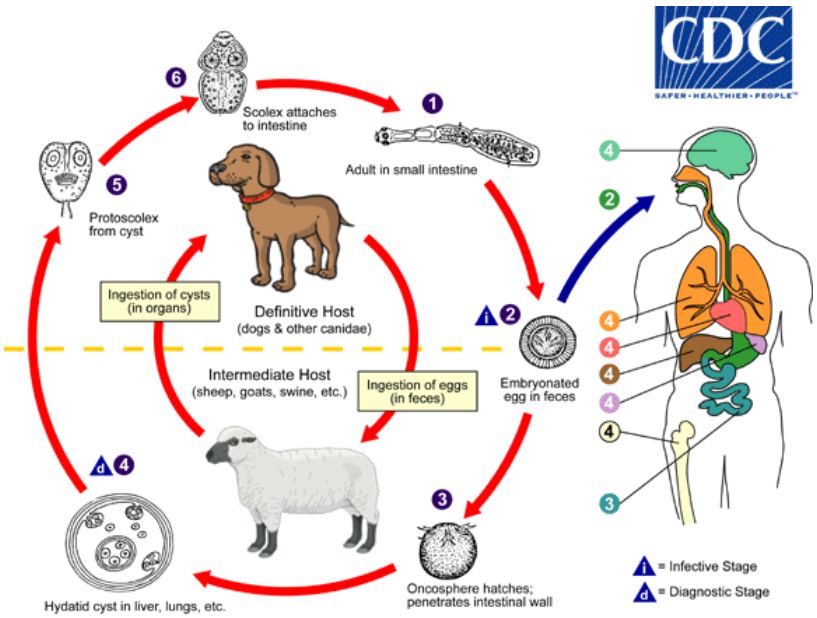
It is unlikely that you will be exposed to *Echinococcus*, or that you will contract it, but you should still be aware of the potential hazard and best practices to prevent exposure.

Cystic echinococcosis (CE; hydatid disease) is caused by an infection of *Echinococcus granulosus*, a small tapeworm found most commonly in dogs, which are the definitive host. Other hosts include deer, elk, caribou, moose, sheep, goats, cattle, and pigs (intermediate hosts). Most infected humans do not present symptoms, but CE causes harmful, slowly enlarging cysts in organs such as the liver and lungs.

Alveolar echinococcosis (AE) is caused by an infection of *Echinococcus multilocularis*. Defnitive hosts are foxes, and to a lesser extent, dogs, coyotes and wolves. AE poses a greater health threat to humans than CE, although human cases are rare. Symptoms include parasitic tumors in the liver, lungs, brain and other organs. This disease can be fatal if left untreated.

Minimize potential exposure when collecting canid samples by following these precautions:

1. Do not swab or handle old, dried or powdery scat or hair samples
2. Do not lick, sniff or eat any part of the samples (scat, urine, hair, tissue)
3. Always wear gloves when swabbing and handling all samples. Never re-use gloves – use a new pair with each scat. Discard used gloves in a bag and dispose in municipal garbage. Do not touch your face or any other part of your body with used gloves.
4. Keep your face a safe distance from the samples while collecting or swabbing.
5. Sanitize your hands after each interaction with a sample.
6. Wash your hands thoroughly with soap and water as soon as possible after handling samples.



For more information, visit

www.cdc.gov/parasites/echinococcosis/

https://www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/pathogen-safety-data-sheets-risk-assessment/echinococcus-granulosus-pathogen-safety-data-sheet.html

https://www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/pathogen-safety-data-sheets-risk-assessment/echinococcus-multilocularis.html