What is echinococcosis?
Echinococcosis is a disease caused by a microscopic tapeworm. Humans can act as hosts of this worm during its larval stage. Within humans, the tapeworm causes cystic structures in internal organs. These cysts resemble balloons filled with water. The disease takes two forms depending on which species of tapeworm is involved:
- *Echinococcus granulosus* which causes hydatid disease
- *Echinococcus multilocularis* which causes alveolar hydatid disease.

With cystic hydatid disease, the cysts are fewer in number but tend to grow larger. With alveolar hydatid disease, the cysts tend to be smaller but there are more of them. The most common organs affected are the liver, lungs, kidneys, heart, spleen, and brain. Other internal organs can also be affected, but with less frequency. The cystic structures caused by both forms of echinococcosis will grow and multiply, causing damage to the internal organs.

How is echinococcosis transmitted?
Dogs and wild canines, like foxes and wolves, are the host for the adult stage of these tapeworms. The adult parasite produces microscopic eggs. These eggs are shed in the host animal’s feces, which in turn, can contaminate the food sources of sheep, goats, buffalo, cattle, and other ruminants. Eggs hatch in the digestive system of these new hosts.

Here the eggs develop into the larval stage of the parasite. The larvae then travel to the bloodstream and settle in the internal organs, where they grow and produce the cystic structures. Dogs become infected by ingesting these cystic structures.

Can humans become infected?
Yes, humans can become infected with echinococcosis if they consume food, water, or soil contaminated with the eggs of the parasites. However, consumption of the larval stage (or cyst form) of the parasite will not lead to infection in humans. Person-to-person transmission of echinococcosis does not occur.

Can my dog or cat get echinococcosis?
Yes, your pets can become infected with echinococcosis if they consume cyst-containing organs of an infected intermediate host (such as a rodent.) Infected cats and dogs usually show no signs of disease. Routine fecal examinations are not sufficient to diagnose infection. If you are concerned that your pet may have echinococcosis (or other tapeworms), see your veterinarian.

Where is echinococcosis found?
Echinococcosis is a worldwide disease, but it is more frequent in certain areas. Cystic hydatid disease is more common in South America, Asia, North Africa, central Africa, and the Mediterranean coast of Europe. Alveolar hydatid disease is more common in northern Europe, Asia, and North America.

How can echinococcosis be prevented?
- Wash fruits and vegetables with clean water
- Make sure your dog receives treatment for tapeworms on a regular basis
- Keep your dog away from wild animals, particularly foxes and wolves

Additional Information:
- Centers for Disease Control and Prevention

This fact sheet is meant to provide basic information. For specific health concerns please contact your physician or veterinarian. Updated 2010.