

Echinococcus Granulosus

Echinococcus granulosus, also known as the dog tapeworm, is a cestode that is transmitted to humans through dog feces. When its eggs are ingested, echinococcus leads to hydatid cysts in the liver, which also lead to surrounding necrosis and fibrosis. Caregivers should be careful, as if these cysts are broken, anaphylaxis can occur from the released antigens. The preferred treatments are albendazole or surgical removal of the cysts.



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Pathophysiology

Cestode (Tapeworm)

[Crest-toad with Tapeworm](#)

Echinococcus is a cestode, or tapeworm, that ranges in length from 2-7mm in length.

Ingestion of Eggs from Dog Feces

[Eggs with Dog Feces](#)

This is transmitted to humans when echinococcus eggs are ingested. These eggs are found in the feces of the definitive host, dogs. Thus, proper hygiene helps prevent spread of echinococcus granulosus.

Hydatid Cysts in Liver

[Hydro with Cyst-sisters with Liver](#)

Once infected, this infection causes slow-growing cysts to grow in the liver (rarely, the lungs, spleen and heart). These are called hydatid cysts and are filled with clear fluid containing antigens. Depending on their size, these cysts can be asymptomatic or present as an uncomfortable mass.

Fibrosis and Necrosis

[Fibrous-net and Necrosis-crow](#)

Often, due to cyst growth, the body can react with fibrosis and necrosis in the infected tissue.

Anaphylaxis if Antigens Released

[Anvil-axes when Ant-gem is Released](#)

Caregivers should be cautioned when examining and treating this infection. If cysts rupture while in the body, from surgical extraction of bodily trauma, the patient will go into anaphylactic shock and develop high fever, pruritis, edema, and breathing difficulties.

Treatment

Albendazole

[Abe-Bond](#)

Albendazole is the most common pharmacologic treatment used against echinococcus infection. It is typically combined with open surgical removal of the cysts.

Surgical Removal

Scalpel

If the cysts are in an accessible location, open surgical removal of cysts is used to treat patients infected with echinococcus.