

HYDATIDS

KEY MESSAGES

1. Hydatids are cysts in sheep, caused by ingestion of eggs from the dog hydatid tapeworm, *Echinococcus granulosus*.
2. It can cause serious and sometimes fatal disease in people, with children being especially vulnerable.
3. Regular monthly tape worming and removing offal from the diet of dogs can control the disease.

How is it spread?

Hydatids cysts are formed when sheep ingest hydatid eggs on pasture. These eggs can remain viable on pasture for a year. Once ingested the eggs hatch and the larvae migrate through the gut wall and travel to various organs where they form cysts. They occur most commonly in sheep but they also occur in cattle, goats, horses, kangaroos, wallabies and pigs.

The cysts are infective to dogs. Each cyst can contain many tapeworm "heads" all capable of forming an adult tapeworm if ingested by a dog. In sheep, wallabies and kangaroos most cysts are viable.

Disease picture at the abattoir

The disease is relatively uncommon but does tend to occur in pockets often associated with circulation in wildlife. In sheep affected organs are condemned.

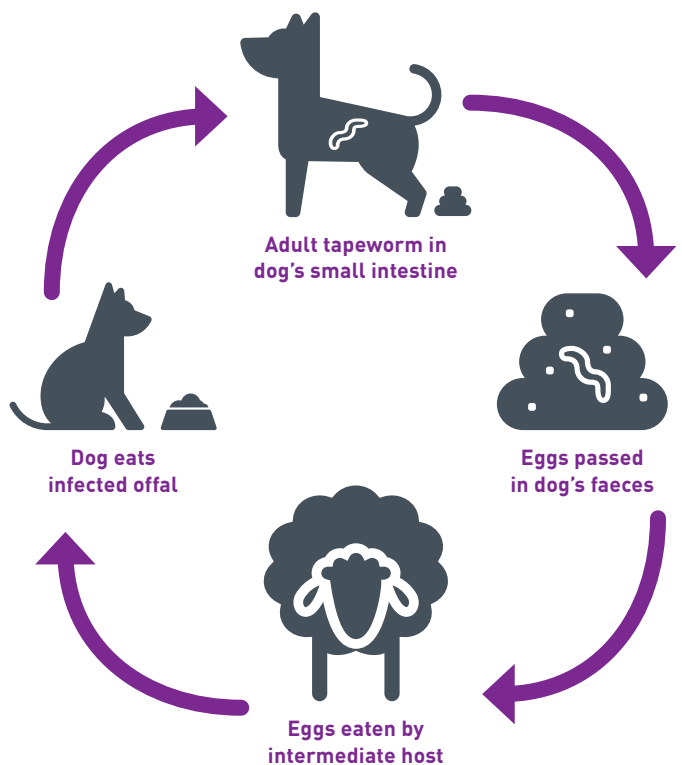
What are Hydatids?

Hydatids are the large cysts from the dog tapeworm. Their importance is due to the condemnation of organs at abattoirs and more importantly the risk to people due to the accidental ingestion of eggs.

Disease on farm

The prevalence of hydatids varies through the country, areas like Tasmania and South Australia have little or no hydatid disease while other states tend to have pockets often associated with poor control in farm dogs, wild dogs and to a lesser extent foxes.

Generally hydatids have little or no effect on sheep health or production. The hydatid tapeworm itself is very small, (~6mm) and causes no clinical signs in dogs. It is highly unlikely that you will see any evidence that your dog is infected with hydatid tapeworms.



Treatment

There is no available treatment for infected sheep. Treatment and prevention of domestic dogs becoming infested is the basis of protecting sheep and people from infection.

Hydatid disease in people

People become infested by the accidental ingestion of eggs passed by adult hydatid tapeworms in dogs. People do not become infected by eating sheep meat or offal contaminated with hydatid cysts. Human infection most commonly occurs when infested dogs are handled due to the sticky eggs being present on the dog's coat. People can also become infested through the inhalation of eggs in dust on windy days or from eggs transmitted by flies. Children are more commonly affected due to their close association with dogs and poor hygiene.

Cysts may locate in many organs in the body including the brain. The symptoms of disease in people are quite variable and depend on which organs are affected and size and number of cysts. Although not common there have been cases of sudden death due to an allergic reaction when a cyst is accidentally ruptured.

The only treatment for affected people is major surgery to remove the cysts.

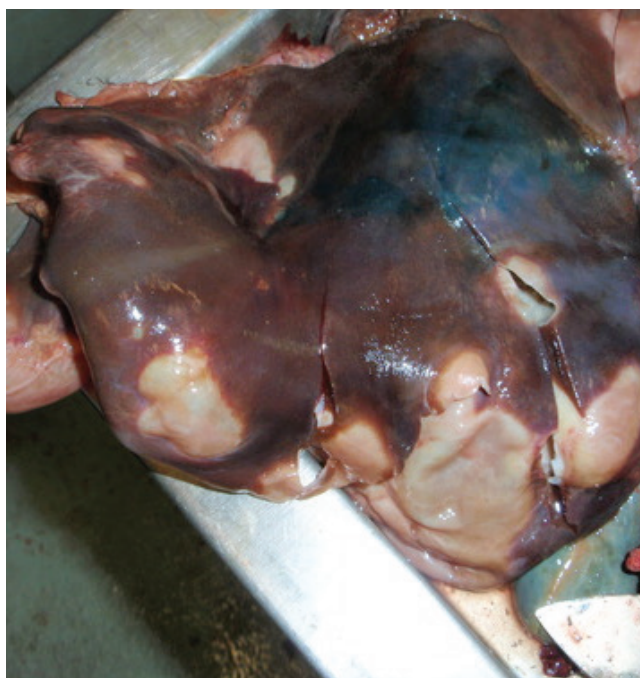


Image provided by Michelle Dennis from the OLIVER database of the Faculty of Veterinary Science, University of Sydney

Prevention

Prevention is aimed at breaking the life cycle by ensuring dogs are no longer being infested and if they do that the hydatid tapeworms are killed before they reach an egg producing stage. There are two other important tapeworms that have a sheep/dog life cycle that cause sheep measles and bladder worm in sheep. These will also be controlled by following the control program for hydatids.

- Worm all farm and house dogs, monthly with a wormer that contains the active ingredient praziquantel or a label claim for hydatid tapeworms. This also should apply to all visiting dogs with hunters or contractors.
- Feed commercial packaged dog food to dogs and don't feed or allow access to offal.
- Secure dogs at night to stop scavenging and remove sheep carcasses to remove access.
- All home killing of sheep should occur in a dog proof enclosure.

Practice good hygiene, by ensuring that everyone including children wash their hands thoroughly following contact with dogs and especially before eating.

What to expect from prevention program

If you start a control program based on management changes and monthly worming of dogs it may take a year before existing viable eggs on pasture die. Sheep remain infested for life so once the lifecycle has been broken it may take many years to turn over the flock and remove the last infested animals.

Wildlife cycles of infection do exist in some areas, due to infestation of wild dogs/dingos and kangaroos, and to a lesser extent foxes. Control of foxes and wild dogs will help reduce the level of infestation but it is more difficult to control the disease then when only farm dogs are involved in the life cycle.

Where on farm eradication is impossible due to wildlife hosts it is still essential to use preventative practices in farm dogs to minimise the chances of humans becoming infested.