

Bladder worm or false hydatids

(*Cysticercus tenuicollis*, *Taenia hydatigena*)

factsheet

Key messages

- Bladder worm (or false hydatids) can infect sheep causing cysts and liver damage, leading to livers being condemned at slaughter.
- If sheep have bladder worm, dogs have had access to affected sheep offal. This means there also is a risk of hydatids and sheep measles.

What is bladder worm?

Bladder worm, also known as *Cysticercus tenuicollis*, is the cystic stage of the dog tapeworm *Taenia hydatigena*. Despite a similar name, this parasite is not the same as hydatids.

The cysts form in the organs of intermediate host animals — sheep are the most commonly-infested livestock animal.

Economic impact

Bladder worms can cause sudden death in sheep and goats due to severe liver damage or secondary bacterial infection, although this degree of impact is rare.

Infected livers are condemned.

Production losses can occur due to loss of appetite, depression, weakness and loss of condition.

Parasite life cycle

The adult bladder worm (tapeworm) lives in the intestines of dogs. Worm eggs pass out of the dog in the faeces and contaminate the pasture and ground.

The eggs are resistant to damage and can blow around in the dust or be carried by water and insects. Sheep are infected by eating the eggs while grazing infested pasture.

Larvae hatch out of the eggs in the intestine and pass into the bloodstream and to the liver and then emerge into the abdominal cavity. They migrate in the liver for about four weeks, causing considerable damage.

Larvae attach to a surface in the abdominal cavity (see Figure 1), where they develop into the thin-walled bladder-like cysts, which can grow to be 5cm or more in diameter.

If a dog eats tissue containing the cysts, the cyst releases an immature tapeworm, which attaches to the wall of the small intestine where it matures and starts producing eggs within 51 days.

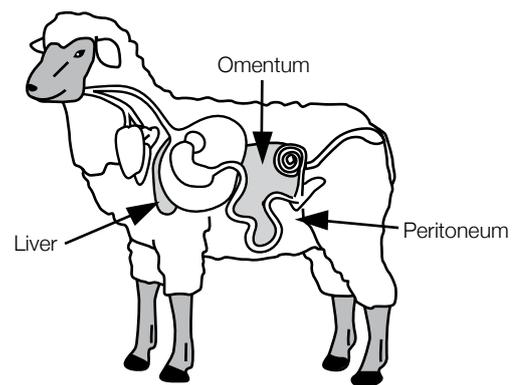


Figure 1: Cysts develop in the abdominal cavity and organs such as the liver.

Diagnosis

There are no outward signs of infection in sheep — cysts are found after slaughter or death.

The main sign of bladder worm infection is watery, balloon-like cysts of different diameters on the liver, diaphragm and abdominal organs. Cysts may be single or present in great numbers.

Heavy infections of immature *C. tenuicollis* larvae in the liver can appear similar to severe acute liver fluke with bloodied tracts.

If a bladder worm cyst is opened up at an early stage, a larva may be found. It resembles an unripe cucumber seed, about 9mm long.

Tracts in the liver become yellow with cheesy material. There may be considerable scar formation and the liver may be much enlarged.

Tapeworm segments may be seen in dog droppings. A laboratory test on dog droppings can detect eggs.

Treatment and prevention

Dogs owners should worm their animals every 30 days with a drug called praziquantel to kill any existing tapeworms.

There is no treatment for bladder worm cysts in sheep or other animals. Always feed dogs manufactured pet food — never feed offal to dogs (cooked or otherwise).

If sheep have bladder worm, dogs have had access to affected sheep offal. This means there also is a risk of hydatids and sheep measles (see related factsheets). Prevent dogs from wandering and scavenging carcasses and dispose of livestock carcasses by burial or burning.

Clean up and dispose of dog droppings and try to prevent dogs from toileting in vegetable gardens.

Always wash hands after playing, bushwalking, handling dogs and before eating or smoking.

Educate children, particularly in sheep production areas, about the dangers of tapeworm infection in their dogs. 🗣️

Note: The control measures for bladder worms will also control the tapeworm responsible for sheep measles (*Taenia ovis*), and the true hydatid tapeworm. The life cycle of each of these parasites is similar — so one convenient control measure will take care of all three parasites.



Photo: Bruce Jackson

Larval stage: The intermediate stage of the bladder worm looks like a tiny balloon (see transparent balloon at bottom right of photo).

What constitutes offal?

Offal includes any internal organ of livestock (including sheep, cattle, pigs and goats) — liver, heart, lungs, all of the digestive tract and the kidneys.

Not acceptable

Do not feed dogs any of the offal items listed above.

When farm livestock die, the optimal action is to promptly bury or burn carcasses to ensure dogs have no access to offal. If livestock are being slaughtered on farm for meat, bury or burn the offal promptly.

Acceptable

Farmers and dog owners can feed muscle meat and bones from sheep, cattle, pigs and goats to their dogs. This meat will not cause dogs to become infested with hydatid tapeworms.

However, feeding sheep muscle meat can cause dogs to get *Taenia ovis* tapeworms unless the meat is initially frozen for at least 21 days.

These tapeworms are not hydatids but will perpetuate the sheep measles cycle on the property. Worm all dogs, both working and pet dogs, regularly.

For further information:

Contact your local DPI/PWE Animal Health officer or local veterinary practitioner; or phone DPI/PWE toll free helpline on 1300 368 550.

FOR ANY SIGNS OF UNUSUAL OR SERIOUS ANIMAL DISEASE, RING THE DISEASE WATCH HOTLINE: 1800 675 888.

Acknowledgements:

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