



# Liver fluke disease

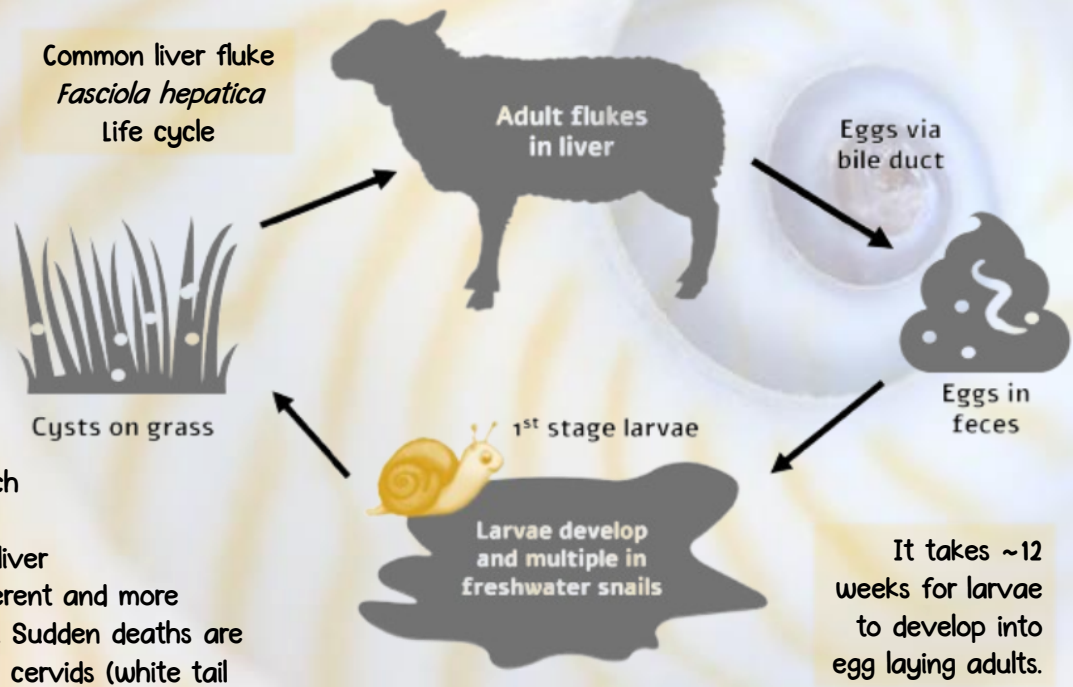
Fasciola is a flat, leaf-shaped "worm" than can infect the liver and bile ducts of sheep, goats, and other animals. Liver flukes can be a problem in low lying areas where snails are present. Liver fluke prevalence varies geographically and is not well documented in sheep/goats (in the US). At one time, liver flukes were relegated to the moister environments of the Gulf and Pacific Coasts, but a recent Beef Quality Audit showed that flukes are now in present in 26 states. Sheep, goats, and cattle are all affected by the same common liver fluke (*Fasciola hepatica*).

The liver fluke has a complex, indirect life cycle. A freshwater snail (lymnaeid) is required as an intermediate host. Since these snails only survive in moist environments, liver fluke infections are usually limited to animals that have grazed wet damp pastures. Fluke is almost always a risk in low lying perennial wet areas. Peak transmission varies somewhat by climate. On high sandy soils, liver fluke is not commonly found.

Liver fluke disease occurs in two forms: acute and chronic. Acute disease is caused by the invasion of the liver by immature liver flukes. In heavy infections, it may cause death. The chronic form is caused by the presence of adult liver flukes in the bile ducts. Signs include weight loss, weakness, anemia, and bottle jaw.

There is another liver fluke for which sheep/goats serve as intermediate hosts. It is called the deer or giant liver fluke (*Fascioloides Magna*). It is different and more deadly than the common liver fluke. Sudden deaths are more common. Like meningeal worm, cervids (white tail deer) are the definitive host for *F. Magna*.

Liver fluke disease can be hard to diagnose, since it has similar symptoms as *Haemonchus contortus* (barber pole worm). Fecal examination for eggs is currently the only diagnostic method available (in the US). A different method of fecal examination is needed to identify fluke eggs (fecal sedimentation). Eggs cannot be detected in the acute phase of infection. Nor is it possible to identify eggs of the deer fluke, since sheep/goats are usually dead-end hosts. Necropsy is often necessary for fluke diagnosis.



Albendazole (Valbazen®) is the only approved treatment for liver flukes in sheep/goats in the US. Timing of treatment is essential. Consult your veterinarian. The drug is not effective against immature flukes under 12 weeks of age. Fortunately, resistance of flukes to albendazole has not yet been reported in the US. Prevention of liver fluke disease is challenging but mostly includes fencing off wet areas and not grazing in snail habitats.



Egg

30–150 by 60–90 µm



Fluke

2 to 3 cm