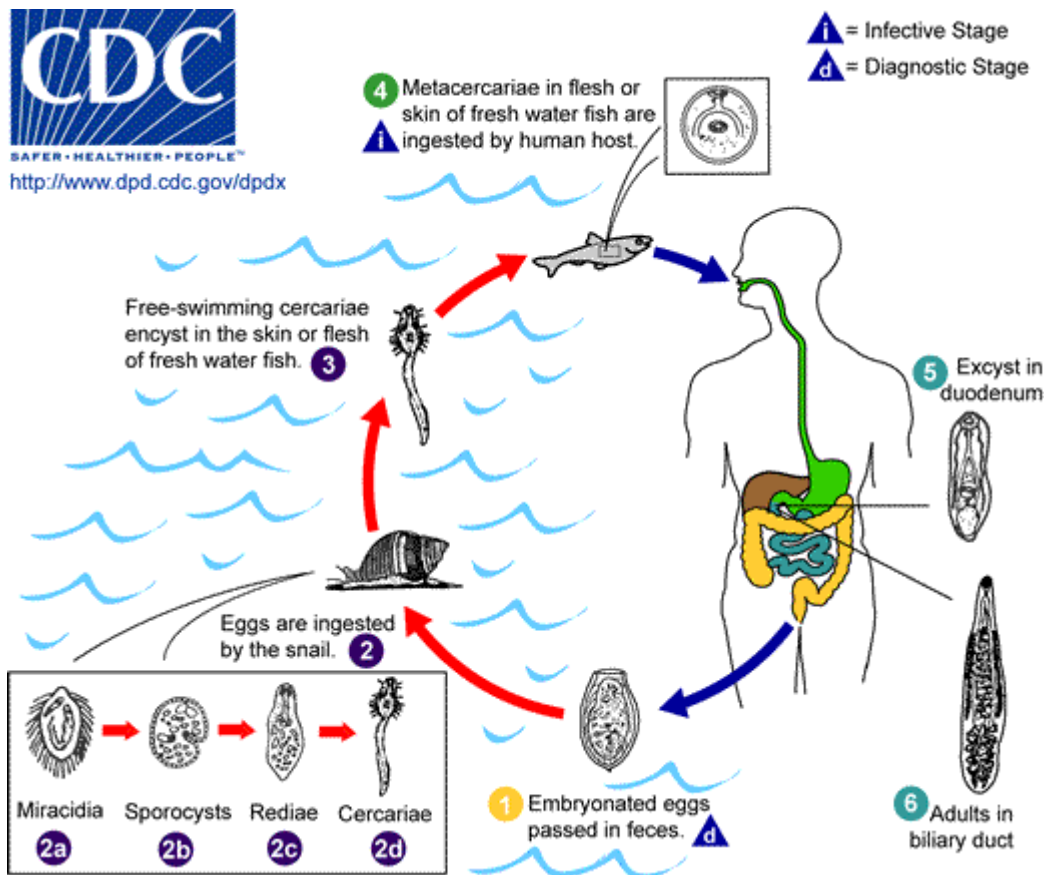


Opisthorchiasis

Causal Agent:

Trematodes (flukes) *Opisthorchis viverrini* (Southeast Asian liver fluke) and *O. felinus* (cat liver fluke).

Life Cycle:



The adult flukes deposit fully developed eggs that are passed in the feces **1**. After ingestion by a suitable snail (first intermediate host) **2**, the eggs release miracidia **2a**, which undergo in the snail several developmental stages (sporocysts **2b**, rediae **2c**, cercariae **2d**). Cercariae are released from the snail **3** and penetrate fresh water fish (second intermediate host), encysting as metacercariae in the muscles or under the scales **4**. The mammalian definitive host (cats, dogs, and various fish-eating mammals including humans) become infected by ingesting undercooked fish containing metacercariae. After ingestion, the metacercariae excyst in the duodenum **5** and ascend through the ampulla of Vater into the biliary ducts, where they attach and develop into adults, which lay eggs after 3 to 4 weeks **6**. The adult flukes (*O. viverrini*: 5 mm to 10 mm by 1 mm to 2 mm; *O. felinus*: 7 mm to 12 mm by 2 mm to 3 mm) reside in the biliary and pancreatic ducts of the mammalian host, where they attach to the mucosa.

Geographic Distribution:

O. viverrini is found mainly in northeast Thailand, Laos, and Kampuchea. *O. felineus* is found mainly in Europe and Asia, including the former Soviet Union.

Clinical Features:

Most infections are asymptomatic. In mild cases, manifestations include dyspepsia, abdominal pain, diarrhea or constipation. With infections of longer duration, the symptoms can be more severe, and hepatomegaly and malnutrition may be present. In rare cases, cholangitis, cholecystitis, and cholangiocarcinoma may develop. In addition, infections due to *O. felineus* may present an acute phase resembling Katayama fever (schistosomiasis), with fever, facial edema, lymphadenopathy, arthralgias, rash, and eosinophilia. Chronic forms of *O. felineus* infections present the same manifestations as *O. viverrini*, with in addition involvement of the pancreatic ducts.

Laboratory Diagnosis:

Diagnosis is based on microscopic identification of eggs in stool specimens. However, the eggs of *Opisthorchis* are practically indistinguishable from those of *Clonorchis*.

Treatment:

Praziquantel is the drug of choice to treat Opisthorchiasis.