



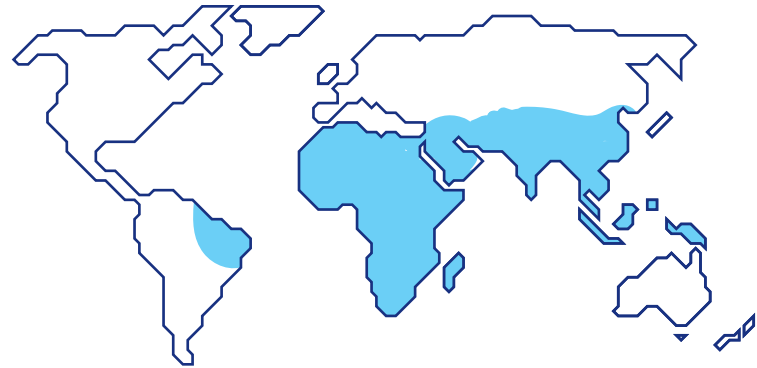
Who

The parasites that cause schistosomiasis live in certain freshwater snails. The level and frequency of skin exposure to contaminated freshwater is directly related to the risk of infection. It has been estimated that more than 200 million people are infected worldwide. Travelers may be infected following one single exposure.



What

Schistosomiasis or bilharzia is caused by *Schistosoma* blood flukes. The parasitic life cycle is complex. Infectious cercariae emerge from the snail and following freshwater exposure, they penetrate the human skin. Subsequently, the parasites migrate to the liver where they mature into adult worms. From there, they move to their final destination, depending on which species of the parasite is involved.



Where and when

The prevalence of schistosomiasis is highest in sub-Saharan Africa, but the disease may also occur in parts of South America, some South Caribbean islands, parts of the Middle East, China, the Philippines, Southeast Asia and Central Africa.

Infection tends to occur in rural areas as urban areas usually lack the freshwater conditions needed for the snail host to thrive.

Prevention

There is no effective vaccine available. Contact with freshwater can be reduced by safe water supplies and sanitation and education regarding wearing protective clothing and footwear during freshwater contact. Mass drug administration programs are applied in certain endemic areas.



Treatment

Treatment aims for the reduction of egg production by the reduction of worm load. The anthelmintic drug praziquantel is the mainstay of treatment. Treatment serves 3 purposes: reversing acute or early chronic disease, preventing complications associated with chronic infection, and preventing or treatment of neurologic disease.

Symptoms

Acute infection may especially be observed in travelers and can present with swimmer's itch and/or acute schistosomiasis syndrome (Katayama fever), a generalized hypersensitivity reaction to the parasites. Chronic disease is generally observed among individuals with ongoing exposure in endemic regions and is caused by the patient's reaction to migrating worm eggs.



In case of infection

Neurologic complications may occur, even among individuals with a relatively low burden of infection. Depending on the specific *Schistosoma* species, various organs may be involved in case of chronic disease. In the bowel, inflammation can result in ulceration and scarring. In the liver, periportal fibrosis may lead to elevated pressure in the portal vein. In the bladder, inflammation can result in polyp-like lesions and/or urinary tract obstruction.