

## SCHISTOSOMIASIS (bilharziasis)

**Cause:** Several species of parasitic blood flukes (trematodes), of which the most important are *Schistosoma mansoni*, *S. japonicum* and *S. haematobium*.

**Transmission:** Infection occurs in fresh water containing larval forms (cercariae) of schistosomes, which develop in snails. The free-swimming larvae penetrate the skin of individuals swimming or wading in water. Snails become infected as a result of excretion of eggs in human urine or faeces.

**Nature of the disease:** Chronic conditions in which adult flukes live for many years in the veins (mesenteric or vesical) of the host where they produce eggs, which cause damage to the organs in which they are deposited.

The symptoms depend on the main target organs affected by the different species, with *S. mansoni* and *S. japonicum* causing hepatic and intestinal signs and *S. haematobium* causing urinary dysfunction.

The larvae of some schistosomes of birds and other animals may penetrate human skin and cause a self-limiting dermatitis, "swimmers itch". These larvae are unable to develop in humans.

**Geographical distribution:** *S. mansoni* occurs in many countries of sub-Saharan Africa, in the Arabian peninsula, and in Brazil, Suriname and Venezuela.

***S. japonicum* is found in China**, in parts of Indonesia, and in the Philippines (but no longer in Japan).

*S. haematobium* is present in sub-Saharan Africa and in eastern Mediterranean areas.

**Risk for travellers:** In endemic areas, travellers are at risk while swimming or wading in fresh water.

**Prophylaxis:** None.

**Precautions:** Avoid direct contact (swimming or wading) with potentially contaminated fresh water in endemic areas. In case of accidental exposure, dry the skin vigorously to reduce penetration by cercariae.

Avoid drinking, washing, or washing clothing in water that may contain cercariae. Water can be

treated to remove or inactivate cercariae by paper filtering or use of iodine or chlorine.