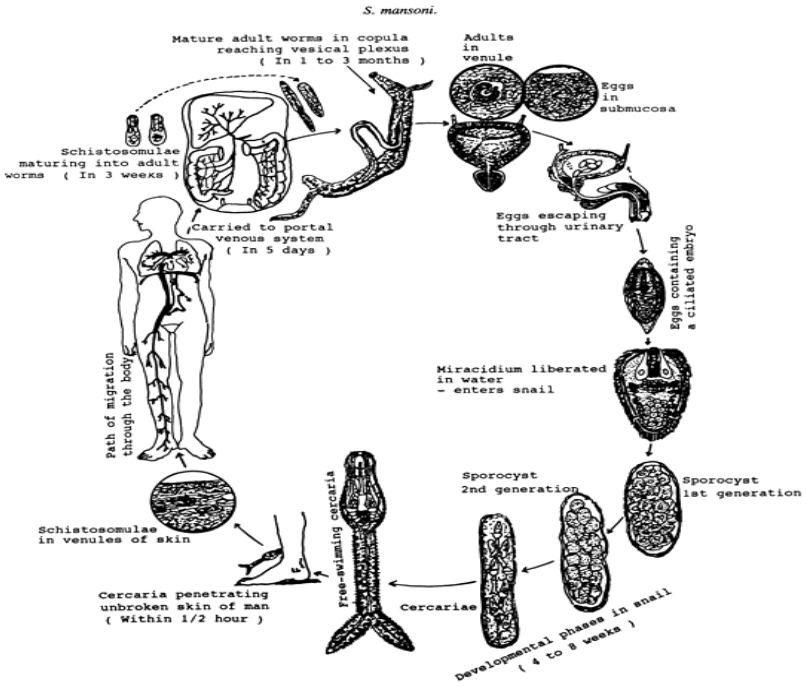
BILHARZIA (also known as Schistosomiasis "swimmers itch" or "Snail fever")

Cause/Description

Bilharzia is a parasitic infection caused by *Schistosoma* flukes (flatworms) that have complex life cycles involving specific freshwater snail species as intermediate hosts. Infected snails release large numbers of minute, free-swimming larvae (cercariae) that are capable of penetrating the skin of the human host. Even brief exposure to contaminated fresh water, through activities such as wading, swimming, or bathing, can result in infection. Human schistosomiasis cannot be acquired by contact with salt water (oceans or seas).



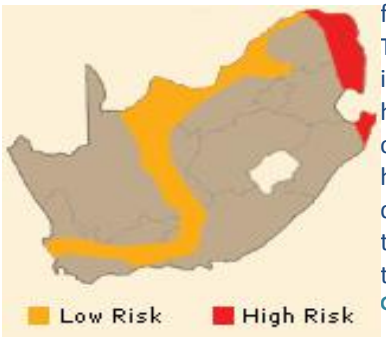
The life cycle of Schitosomiasis Mansoni (intestinal Bilharzia)

5 Types Schistosomiasis

- ***Schistosoma haematobium:*** It is a major agent of schistosomiasis. More specifically, it is associated with urinary schistosomiasis. It can enter the wall of the urinary bladder causing bloody urine.
- ***Schistosoma mansoni*** and ***Schistosoma intercalatum*** cause intestinal schistosomiasis. *Schistosoma mansoni* is a significant parasite of humans.
- ***Schistosoma japonicum*** and ***Schistosoma mekongi*** cause Asian intestinal schistosomiasis.

Area of risk

Bilharzia is found mainly in the eastern half of South Africa and especially on the lowveld (coastal plain). Always check with locals about the high-risk areas. Exposure to bilharzia is a health hazard for persons who travel to endemic areas (see map below). Those at greatest risk are travellers who wade, swim, or bathe in fresh water in areas where sanitation is poor and the snail hosts are present. Note that the prevalence of bilharzia is changing rapidly. On the other hand, the spread of bilharzia has increased in sub-Saharan Africa, and water resource development projects and population movements have led to the introduction of Schistosomiasis into regions and countries that were not endemic previously.



Geographic distribution of Schistosomiasis

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Symptoms

The first symptoms of this disease are a slight rash around a concentrated area where the parasitic worm entered through the skin. Two to twelve weeks later fever, diarrhea, cough or rash may develop. Watch out for abdominal pain. Long-term problems with the bladder, kidneys, bowel, lungs or liver can occur if not treated properly. Diagnosis of infection is usually confirmed by serological studies or by finding eggs during microscopic examination of stool or urine samples. The eggs can be found as soon as 6-8 weeks after exposure but are not always detectable.

Treatment

There is treatment for bilharzias and safe and effective drugs are available for the treatment of this disease. You will be given pills to take for 1 – 2 days, after which you will need to check up with your doctor.

Prevention

- Travelers should be advised to avoid wading, swimming or other fresh-water contact in endemic countries. Untreated piped water coming directly from canals, lakes, rivers, streams or springs may contain cercariae. see the picture below:

- Heating bathing water to 50°C for 5 minutes or filtering water with fine-mesh filters can eliminate the risk of infection.
- If such measures are not feasible, allow bathing water to stand for 2 days because cercariae rarely remain infective longer than 24 hours. Swimming in adequately chlorinated swimming pools is virtually always safe, even in endemic countries.
- Vigorous towel drying after accidental exposure to water has been suggested as a way to remove cercariae in the process of skin penetration, however, this may prevent only some infections and should not be recommended to travellers as a preventive measure
- Application of an astringent (drying agent), such as rubbing alcohol to the skin immediately after swimming may also help to reduce fluke penetration

Association with drinking water

There is no direct link between Bilharzia and drinking tap water. A person gets bilharzia when his/her skin comes into contact with contaminated fresh water. Rand Water purifies the water by means of a conventional purification process, resulting in water that is safe to drink and meets the SANS 0241 water quality specifications.

#Endemic= In biology, when something is **endemic**, it is unique to its own place or region, in other words (restricted to a particular area)

Visit **www.reservior.co.za** for further information on water quality in your area.

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