**What is Swimmer’s Itch**

Swimmer’s Itch is a skin irritation that is caused by a larval form of certain flatworms from the *Schistosomidae* family. It is a fairly common occurrence on many of the lakes in our area.

Schistosome flatworms (shown on left) are parasites with a complex life cycle (usually involving certain species of snails and waterfowl). Even though the Schistosome species found in Northern Michigan are not parasites of humans, their larvae do burrow into human skin seeking to complete their life cycle. The larvae are only 1/32 of an inch long and generally invisible to the naked eye. Since humans are not the proper host, the larvae soon die. The itching sensation is caused by an allergic reaction many people develop to the dead larvae under the skin. (See back for diagram of life cycle.)

Many species of parasitic flatworms are naturally occurring in almost all lakes. However, not all larval species cause Swimmer’s Itch. The life cycle and host requirements of those species responsible for Swimmer’s Itch differ widely, and the ecology of most is poorly understood. Swimmer’s Itch has probably been around as long as human beings. It is known to occur in at least 30 states as well as Canada, Europe, Africa, and Asia. In the United States, the problem appears to be concentrated in the Midwest region.

**What are the symptoms?**

Not all people are sensitive to Swimmer’s Itch. Some who are exposed to the larvae never develop the itch. Those who are sensitive may feel a dull prickly sensation as the larvae burrow into the skin. This may occur either while swimming or immediately after leaving the water. At each point of entry a small red spot may appear and begin to itch.

Symptoms include intermittent periods of itching that will continue for several days. Many suffering from cercarial dermatitis (Swimmer’s Itch) experience the most severe itching early in the morning. After approximately 24 hours, the reddened areas reach their largest size. The itchy, reddened, and raised areas are often confused with bites from chiggers or mosquitoes and the symptoms may be misdiagnosed as those resulting from poison ivy or stinging nettles. Chigger bites are usually located at points where clothing contacts the skin such as wrists, waist, ankles, etc. Itching is limited to points of cercarial entry and will not spread and will never develop into water blisters.

Swimmer’s itch, although extremely annoying and uncomfortable, is not a communicable or fatal condition. Over-the-counter drugs are available to reduce the symptoms of swimmer’s itch. Antihistamines can be used to help relieve the itching while topical steroid creams may help to reduce the swelling. Before taking any of these drugs, however, consult your physician or dermatologist for advice.

**Our Recommendations**

There are several means by which you can significantly reduce your chances of contracting the Swimmer’s Itch parasite.

- Since itch-causing larvae usually live in the shallows near shore, it is best to avoid this area as much as possible. This is especially important when the wind is blowing toward the shore.
- Towel off thoroughly as soon as you leave the water, and at frequent intervals. The fragile Cercaria of some species can sometimes be rubbed off before they fully penetrate the skin.
- Do not feed waterfowl! Feeding waterfowl may aggravate the problem by concentrating potential hosts in a limited area.
- If you get Swimmer’s Itch, ask your doctor or pharmacist for the best treatment available to help reduce the itching sensation.

For information on controlling Swimmer’s Itch or to report a location, visit [www.watershedcouncil.org/learn/swimmers-itch](http://www.watershedcouncil.org/learn/swimmers-itch) or [www.swimmersitch.org](http://www.swimmersitch.org)
The Life Cycle of Swimmer’s Itch

Here is the cycle that leads a parasite to enter the skin of vulnerable lake swimmers, causing a painful itch.

Flatworms become adult worms in veins that surround the intestines of certain birds and rodents. (Final Host Stage)

Female worms lay eggs that enter intestines and hatch when released into water through feces.

Eggs hatch into a free-swimming aquatic stage (Miricidia) that enter snails. They elongate into germinating sacs that produce thousands of new parasites called cercaria. (Intermediate Host Stage)

Cercaria burrow out of the snail and swim in search of a host. Rather than penetrate birds and rodents, repeating the cycle, the cercaria may encounter swimmers, penetrate their skin and die, causing swimmer’s itch.

Note: Drawings not to scale