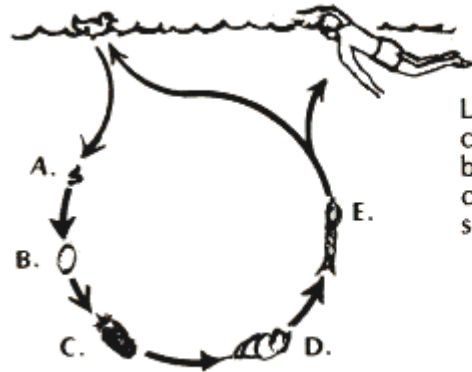


Lake Mission Viejo Association

Lake Facts & Tips:

Swimmer's Itch



Life cycle of swimmers' itch cercariae: (A) blood fluke carried by water bird; (B) egg; (C) miracidia (D) snail host; (E) cercaria seeking host.

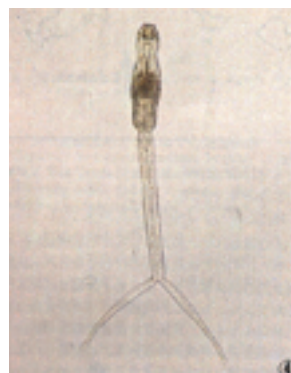
Bird defecates in water and releases the swimmer's itch organism.
It enters a specific variety of snail and matures until ready to emerge to find another bird.
...or accidentally a swimmer.

What Is Swimmer's Itch?

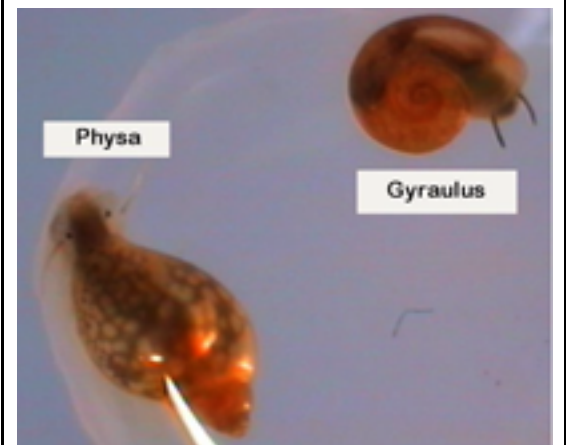
Swimmer's itch (*schistosome dermatitis*) is an allergic reaction on the skin of some swimmers to an aquatic trematode called a schistosome. At LMV, it is sporadically reported early in the swimming season from March to April or May. It is **not** parasitic, contagious or infectious to humans as it is only shared between certain birds and snails. This is a common condition common to all lakes with a population of birds and snails. Certain birds are the host to this trematode microorganism that is released into the water through the bird's feces. The microorganism then finds a certain snail in the water to act as its host for the next stage in its growth. Finally, when the time is right, the trematode is released from the snail to drift to the surface where it hopes to find another bird host. In the case of humans, it is a case of mistaken identity since we are the wrong host and the microorganism.



Birds introduce swimmer's itch to the Lake



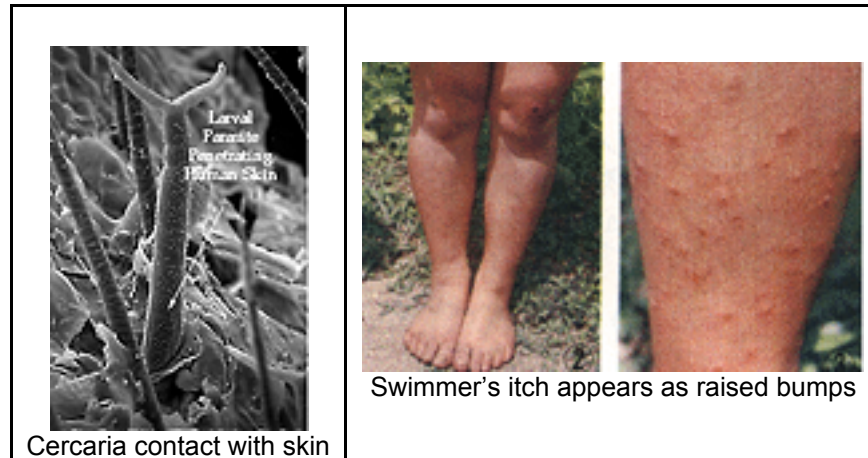
Swimmer's itch cercaria



Snail hosts

Prevention:

Although not all bathers are susceptible, precautions are advised by towel drying immediately upon exiting the water. Bathers who remain in the water for long periods of time may wish to occasionally rub exposed areas of their skin with their hands to interrupt possible contact with the organism. Indeed, we never see itch on people's faces and one guess is that it is because most people "squeegee" water off their faces frequently with their hands while swimming. Loose-fitting swimming trunks also may brush against the skin and thereby might disrupt contact with the organism there. It might be helpful to approach the problem at the skin level: Some waterproof sunscreens available today may contain insect repellents such as Citronella® that might work for some swimmers. New products are constantly coming out and it might be worth it to see what works best for you.



Treatment:

If one should contract swimmer's itch, the affected areas may be treated topically with anti-itch lotions, oatmeal baths or orally with antihistamines. Some people have reported some relief with ammonia type anti-bee sting dressings or with hydrocortisone creams. Be sure to avoid scratching them so that a secondary infection doesn't result from open skin. Itching rarely lasts more than a 2 to 4 days and the mosquito bite-like bumps don't spread and should completely disappear within a week to about 10 days.

Since birds and snails are the sources of swimmer's itch and LMVA does what we can to control their populations. But even these efforts have limited effects. Historically we have experienced swimmer's itch here annually during the spring months and have tried to control it with very mixed results. In 1984 when the Lake was relatively young and swimmer's itch was unknown in these parts, we over-dosed the Lake with copper sulfate to control snails and had near-disaster results. Not only were snails killed but also many plants and plankton were affected. Later that season the Lake experienced extremely low oxygen levels due to the increased decomposition that resulted but fortunately the Lake survived a potentially catastrophic fish kill. Gradually the Lake returned to good health, as did the snails.

We still may disinfect certain locations but gradually drift may bring in new organisms from other parts of the Lake. We try to discourage the presence of birds at the Lake and ask that you please do your part by not feeding birds while at the Lake.

When we are aware of an outbreak at LMV, we will attempt to inform bathers at the park entrance with informational flyers. Many swimmers choose to swim anyway and do not contract an itch but it is impossible to predict who will be most sensitive. Thankfully this is a short-lived phenomenon here. It is our wish to maintain a safe and enjoyable environment for all Lake users and that this advisory will help educate and minimize any

risk of discomfort. Please feel free to contact Tom Buckowski, LMVA's Lake Biologist with any concerns you may have at: (949) 770-1313 (x235)