

How to prevent *Naegleria fowleri* infection.

Do not swim in warm, standing water, such as ponds, lakes, storm water retention areas or in areas posted "No Swimming" - Bacteria and other harmful organisms thrive in warm, standing water. These bodies of water are usually not inspected or monitored by the Florida Department of Health.

Do not dig or stir up sediments in the water.

Keep your face out of the water to avoid swallowing disease-causing germs and reduce your risk of infection by amoeba, a rare, but life-threatening condition.

Seek prompt medical attention if you become ill after swimming in freshwater.

Avoid areas with obvious algal blooms - Contact with algal blooms may cause skin rash, runny nose and burning eyes.

POTENTIALLY DANGEROUS AREAS TO SWIM



The mucky areas of ponds and lakes are the favorite places for the Amoeba to inhabit.



The bottom of lakes and ponds should not be disturbed when swimming.

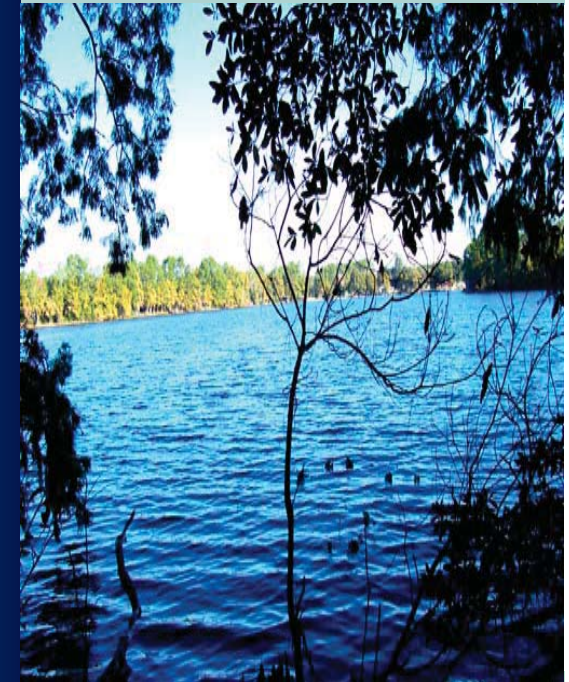
Volusia County Health Department

www.volusiahealth.com

A Guide to Safe Swimming
in Florida

Answers to your questions
about PAM
(*primary amoebic
meningoencephalitis*)

www.volusiahealth.com/eh



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The Facts about PAM - Frequently asked questions



Blue Springs State Park, DeLand, Florida, is a great place to swim. This spring is regulated by the Florida Department of Health.

What is *Naegleria*?

Naegleria is an amoeba commonly found in the environment, in water and soil. Only one species of *Naegleria* has been found to infect humans, *Naegleria fowleri*.

Where is *Naegleria* found?

Naegleria fowleri is found worldwide. Most commonly, the amoeba is found in

- Warm bodies of fresh water, such as lakes, rivers, and hot springs
- Warm water discharge from industrial plants
- Under-chlorinated swimming pools
- Soil

How common is *Naegleria* infection?

Although *Naegleria* is commonly found in the environment, infection occurs rarely.

Only 24 infections were documented in the U.S. between 1989 and 2000.

When is *Naegleria* most common?

Infection with *Naegleria* is most common during the summer months, when the water temperature is warm.

How does infection with *Naegleria* occur?

Infection with *Naegleria* occurs when the amoeba enters the body through the nose while the person is swimming underwater or diving. The amoeba then travels to the brain and spinal cord. Avoid stirring up the sediment and placing the head underwater.

Can infection be spread from person to person?

No. *Naegleria* infection cannot be spread from person to person contact.

How can I prevent an infection with *Naegleria*?

- Do not swim in fresh water areas that are not health department approved bathing places
- Avoid swimming in thermally polluted water (water around power plants)
- Hold the nose shut when jumping or diving into bodies of fresh water

Is there treatment for infection with *Naegleria*?

Several drugs are effective against *Naegleria* in the laboratory. However, although a variety of treatments have been used to treat infected persons, their effectiveness is unclear since most infections have still been fatal. Prompt diagnosis and treatment may help.

What are the signs and symptoms of *Naegleria* infection?

Infection with *Naegleria* causes the disease primary amebic meningoencephalitis (PAM), a brain inflammation, which leads to the destruction of brain tissue.

Initial signs and symptoms of PAM include headache, fever, nausea, vomiting, and stiff neck.

As the amoeba causes more extensive destruction of brain tissue this leads to confusion, lack of attention to people and surroundings, loss of balance and bodily control, seizures, hallucinations. The disease progresses rapidly and infection usually results in death within 3 to 7 days.

Can I get *Naegleria* infection from a swimming pool?

No. You cannot get *Naegleria* infection from a swimming pool as long as the pool is properly cleaned, maintained, and chlorinated.



For more information
please visit the following web sites:

www.volusiahealth.com/eh

http://www.cdc.gov/ncidod/dpd/parasites/naegleria/factsht_naegleria.htm