



Naegleria fowleri in the Northern Territory

What is *Naegleria fowleri*?

Naegleria fowleri is an organism known as an amoeba that lives naturally in warm freshwater bodies and soil. It can grow in warm, stagnant water bodies including lakes, hot springs, warm water discharge from industrial plants, poorly maintained swimming pools and spas and garden hoses or sprinklers containing stagnant water. It is and has always been a naturally occurring organism in the Territory's environment.

Naegleria fowleri can enter water supply systems, and has been periodically identified within some water supply systems in the Northern Territory. **This is not a public health risk and the water is safe to drink.**

What is done when *Naegleria fowleri* is found in the public drinking water supply?

Power and Water regularly tests for *Naegleria fowleri* in the Northern Territory's water supply. Whenever the organism is detected, water systems are flushed and chlorination is increased. Chlorine is very effective in killing the organism. Further tests after chlorination are conducted to ensure that the organism has been removed.

What disease does *Naegleria fowleri* cause?

Although *Naegleria fowleri* is commonly found in the environment, it rarely causes infection and no cases have been recorded in the Northern Territory in the past ten years. Infection can result in a rare form of meningitis (inflammation of the brain and lining around the brain) called Primary Amoebic Meningoencephalitis (PAM). This disease only occurs when water contaminated with

Naegleria fowleri enters the body through the nose. Even if contaminated water does go up the nose, the chance of contracting meningitis is exceedingly small.

The disease cannot be contracted by drinking water. The disease cannot be spread by person to person contact.

What are the symptoms of *Naegleria fowleri* infection?

Symptoms of PAM include

- severe headache
- fever
- nausea
- vomiting
- sore throat
- stiff neck
- lethargy or drowsiness
- alteration in sense of smell

These symptoms usually appear within 3-7 days and the rapid progression of the infection usually results in death within 10 days.

Who is at risk?

This rare disease occurs mainly in active children and young adults. *Naegleria fowleri* is ubiquitous in warm fresh water and most cases are associated with patients having been to a swimming pool, freshwater lake, or pond a few days before the onset of symptoms.

What is the treatment?

Several antibiotics have been successfully used to kill the *Naegleria fowleri* organism in laboratory studies. However, successful antibiotic treatment of human cases has been rare. Prompt diagnosis and treatment may help.

How can it be prevented?

- Avoid jumping or diving into bodies of warm fresh water or thermal pools.
- Keep your head above water in spas, thermal pools and warm fresh water bodies.
- Ensure swimming pools and spas are adequately chlorinated and well maintained.
- Empty and clean small collapsible wading pools daily.
- Supervise children playing with hoses or sprinklers to educate and instruct them against squirting water up their noses.
- If you've been away, let bath and shower taps run for a few minutes to flush out the pipes.

Further information

For further information and advice contact your local Environmental Health Program

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Alice Springs 8955 6122

or

Centre for Disease Control.

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Katherine 8973 9049

Alice Springs 8951 7540

Tennant Creek 8962 4259

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