

Amoebic meningoencephalitis



Amoebic meningoencephalitis is an infection of the brain and the membranes covering the brain (which are called the meninges). It is caused by an amoeba (a microscopic single-celled organism) called *Naegleria fowleri*.

How amoebic meningoencephalitis is spread

The amoeba that causes the infection occurs in shallow surface waters and incorrectly maintained swimming pools, hot tubs and spas, particularly in warm climates. Swimming in salt water has not been associated with this disease.

Infection occurs when infected water enters the nose. This can happen when diving, jumping or swimming in fresh water. The amoeba then invades the brain and meninges through the nose. This is a rare disease affecting mainly young, active people. It is almost always fatal.

Signs and symptoms

Symptoms may include:

- > sore throat
- > headache and pain in the forehead
- > hallucinations (sensory experiences that are created in the mind)
- > confusion
- > nausea and vomiting
- > high fever
- > neck stiffness and pain
- > disturbances of taste and smell
- > seizures (fits).

Diagnosis

The infection is diagnosed by examining the CSF (cerebrospinal fluid: the fluid surrounding the brain and spinal cord), as the amoeba causing the infection is visible under a microscope.

Incubation period

(time between becoming infected and developing symptoms)

Usually 3 to 7 days.

Infectious period

(time during which an infected person can infect others)

Person-to-person spread does not occur.

Treatment

Swift diagnosis and treatment with specific antibiotics may be useful, but recovery is rare.

Prevention

- > Exclusion from childcare, preschool, school or work is not necessary
- > do not dive, jump or swim in warm surface waters
- > hold your nose if you need to jump into water
- > wading pools should be emptied each day
- > swimming pools and spas should be kept clean and maintained correctly
- > keep sprinklers and hoses away from noses.

For more information about maintenance of private swimming pools and spas, contact the Environmental Health Officer at your local council.

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Useful links

SA Health website – www.sahealth.sa.gov.au

- > When you have a notifiable disease
- > Naegleria fowleri (water quality)

You've Got What? 5th Edition

Communicable Disease Control Branch

Telephone: 1300 232 272 Email: HealthCommunicableDiseases@sa.gov.au

The SA Health Disclaimer for this resource is located at www.sahealth.sa.gov.au/youvegotwhat



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