

## Naegleria Fowleri

*Naegleria fowleri* is a protozoan parasite that can lead to rapidly fatal meningoencephalitis in those infected. It is typically contracted from swimming in freshwater lakes, and then invades and attacks the brain and CNS after penetrating the cribriform plate. Diagnosis can be made when amoebas are found in the CNS, and treatment is started with amphotericin B, however there are few survivors.



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### Pathophysiology

#### Protozoa

##### [Propeller-protozoa](#)

The parasite, *Naegleria fowleri*, is a protozoan.

#### Rapidly Fatal Meningoencephalitis

##### [Rapid Death of Men-in-jewels with Brain-in-flames](#)

Those who contract *Naegleria fowleri* develop a rapidly fatal meningoencephalitis, hence the nickname "brain-eating amoeba."

#### Swimming in Freshwater Lakes

##### [Swimming in Lake](#)

This protozoan is typically found in warm bodies of fresh water (ponds, lakes, rivers, hot springs). It can also be found in soil and poorly or unchlorinated swimming pools.

#### Travels through Cribriform Plate

##### [Traveling through Crib Plate](#)

Once in the nasopharynx, *Naegleria fowleri* attacks the brain and CNS after traveling through the cribriform plate.

### Diagnosis

#### Amoebas in CSF

##### [Amoeba in Brain-Spine-Fluid](#)

Diagnosis of *Naegleria fowleri* infection is made with lumbar puncture, after examining the CSF. After extracting a CSF sample, a flagellation test confirms *Naegleria* amoeboid presence.

### Treatment

#### Amphotericin B

##### [Amphibian-terminator with \(B\) Bee](#)

Patients who are found to be infected by *Naegleria fowleri* are treated with Amphotericin B.

**Death is Still Common**

**Grim Reaper**

Survival after infection is rare, and there is a 95% fatality rate in diagnosed patients.