



Naegleria fowleri: The Brain-Eating Amoeba

Why in News?

Recently, a person in Kerala's Alappuzha district died due to a rare infection caused by [Naegleria fowleri](#) after a week of high fever and rapid deterioration in his vitals.

What is Naegleria fowleri?

▪ About:

- Naegleria fowleri, commonly known as the "**brain-eating amoeba**," is a **single-cell organism** found in **warm freshwater environments** such as lakes, hot springs, and **poorly maintained swimming pools**.
- It is a **microscopic organism that can only be seen with a microscope**.
- The amoeba enters the body through the **nose** and can cause a **severe brain infection** known as **primary amebic meningoencephalitis (PAM)**.



▪ Spread in the Human Body:

- The amoeba is typically acquired through the **nasal passage and mouth** when a **person swims, dives, or uses contaminated water for religious rituals**.
- It then migrates through the **olfactory nerve to the brain**, leading to severe **inflammation and destruction of brain tissue**.
- Naegleria fowleri infection does **not spread from person to person**.

▪ At-risk Individuals:

- While the **human body is generally vulnerable** to Naegleria fowleri, **infections are extremely rare**.
- Certain factors can increase vulnerability, such as a **weakened immune system**, a history of nasal or sinus **issues**, or activities involving exposure to warm freshwater.

▪ Symptoms and Prognosis:

- Symptoms usually appear within a week of infection and include severe **headache, fever,**

nausea, vomiting, stiff neck, confusion, seizures, and hallucinations.

- The infection progresses rapidly and **can lead to coma and death. The chances of survival are unfortunately low.**

▪ **Treatment:**

- Treatment includes a **combination of drugs.**
- The drug **Miltefosine** has shown efficacy in killing *Naegleria fowleri* in laboratory settings and has been used successfully in the treatment of some survivors.
- Even with treatment, the **chances of surviving *Naegleria fowleri* infection remain low** with a recorded **death rate of 97 per cent.**

[Source: IE](#)

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