



# Vibrio Vulnificus Infection

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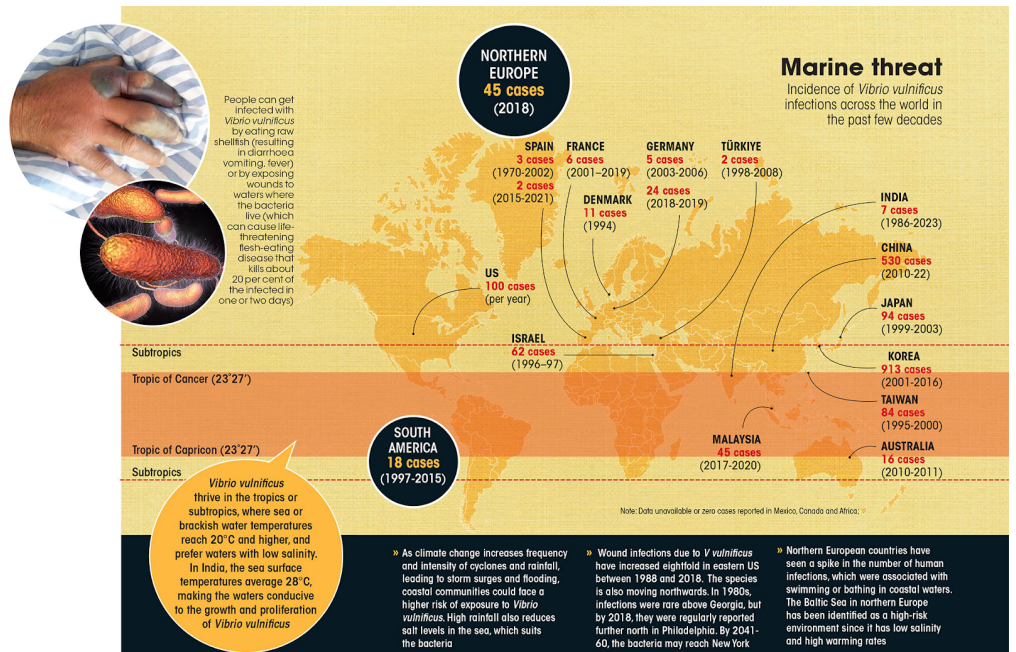
## Why in News?

In recent years, India has been grappling with a growing concern related to ***Vibrio vulnificus* infections**, a deadly [bacteria found in marine environments](#).

- Despite its potential threat, this **pathogen remains largely underreported in India**.

## What is Vibrio Vulnificus?

- **About:**
  - ***Vibrio vulnificus* is a bacterium** that can cause severe infections in humans. It can result from **eating undercooked seafood, especially oysters, which may contain the bacteria**.
- **Carriers:**
  - It is typically contracted through two main routes: **consuming infected raw shellfish and exposing wounds to contaminated waters**.
    - It spreads through marine organisms like **fish like eel, derbio, tilapia, trout, and shrimp**.
    - The first case in marine organisms was **documented in Japanese eel in 1975**. The **first case of V vulnificus in humans** was recorded in **1976 in the US**.
      - The pathogen **arrived in Spain through imported eels in 1985**.
    - In 2018, India documented an outbreak of **V vulnificus in a tilapia farm in Kerala**.
      - Originally from Africa and West Asia, **tilapia** is one of the **most traded food fish globally**.
- **Symptoms:**
  - Symptoms of V. vulnificus infection include **diarrhea, vomiting, fever**, and, in severe cases, **flesh-eating diseases** that can be fatal within days.
- **Environmental Factors Favoring V. vulnificus in India:**
  - This **bacterium thrives in warm waters above 20°C**. India's average sea surface temperature of **28°C** provides a perfect habitat.
    - **Climate change**, with increased rainfall and reduced coastal salinity, further supports the growth of V. vulnificus.
- **Consequences:**
  - V. vulnificus infections have a **high mortality rate, ranging from 15% to 50%**, even with prompt diagnosis and treatment.
  - Vulnerable populations, such as **those with chronic liver disease, cancer, chronic kidney disease, and diabetes**, are at increased risk.
  - Infections can lead to **limb amputations (surgical removal of part of the body, such as an arm or leg)**, making them a significant health concern.
- **The Global Spread:** [//](#)



### ■ Measures to Mitigate *V. vulnificus* Risk:

- **Healthcare Awareness:** Ensure that healthcare professionals in coastal areas are aware of *V. vulnificus* risks and test patients with relevant symptoms.
- **Predictive Tools:** Researchers are developing risk-warning tools using satellite-based sensors to monitor sea surface temperature and phytoplankton levels, which are associated with increased *V. vulnificus* infections.
- **Learning from Seasonal Consumption in Japan:** In Japan, bivalves like oysters and mussels are consumed only in winter, avoiding the summer when bacteria levels are high. This practice significantly reduces infection risk.

PDF Reference URL: <https://www.drishtias.com/printpdf/vibrio-vulnificus-infection>