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*Neurology Care 7 days a Week. Because Your Brain Matters.*

# Meningitis (Bacterial and Viral)

Patient education guide · Infections · Madison Neurology LLC

## What is it?

Meningitis is inflammation of the meninges — the membranes covering the brain and spinal cord — usually from infection. Viral meningitis is the common, generally milder form; bacterial meningitis is a life-threatening emergency in which hours matter. The classic triad is fever, severe headache, and stiff neck.

## How does it happen?

Viral meningitis is most often caused by enteroviruses (summer-fall), herpesviruses, and others. Bacterial meningitis is caused by pneumococcus, meningococcus, and (in older or immunocompromised adults) listeria; these bacteria reach the meninges from the bloodstream, sinuses, or ears. Vaccines have dramatically reduced several forms.

## Common symptoms

- Fever with severe headache
- Neck stiffness — inability to touch chin to chest
- Nausea, vomiting, and light sensitivity
- Confusion, drowsiness, or seizures (concerning for brain involvement)
- In meningococcal disease: a non-blanching purple rash — a dire emergency sign

## How is it diagnosed?

Lumbar puncture (spinal tap) is the key test — spinal fluid analysis distinguishes bacterial from viral causes and identifies the organism. Blood cultures and CT (before the tap, in selected patients) support safe, rapid diagnosis. Bacterial meningitis is treated empirically before results return.

## How is it treated?

Bacterial meningitis: immediate intravenous antibiotics — started on suspicion, without waiting for confirmation — plus dexamethasone to reduce complications (hearing loss, brain injury). Viral meningitis usually needs only supportive care (fluids, pain control) and resolves over 1-2 weeks; herpes meningitis is treated with acyclovir. Close contacts of meningococcal cases receive preventive antibiotics.

## What does the future hold?

Viral meningitis: full recovery is the rule, though headache and fatigue can linger for weeks. Bacterial meningitis: with rapid treatment most survive, but 10-20% may have lasting effects (hearing loss, cognitive issues, seizures) — which is why speed and follow-up matter. Vaccination (meningococcal, pneumococcal, Hib) prevents the major bacterial forms.

## Questions patients commonly ask

### Q: How do I know if it's the dangerous kind?

A: You can't reliably tell at home — fever with severe headache and stiff neck warrants immediate emergency evaluation; the spinal tap distinguishes the types.

### Q: Is meningitis contagious?

A: The viruses causing most meningitis spread like common colds; meningococcal bacteria spread through close contact (kissing, sharing utensils) — household contacts may need preventive antibiotics.

### Q: Can I get meningitis twice?

A: Recurrent meningitis is unusual and prompts a search for an anatomical defect or immune problem.

## National support groups & resources

- **National Meningitis Association** — nmaus.org
- **American Academy of Neurology — Brain & Life patient resources** — brainandlife.org
- **Centers for Disease Control and Prevention** — cdc.gov

(Organization contact details were current at the time of compilation; please verify online.)

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