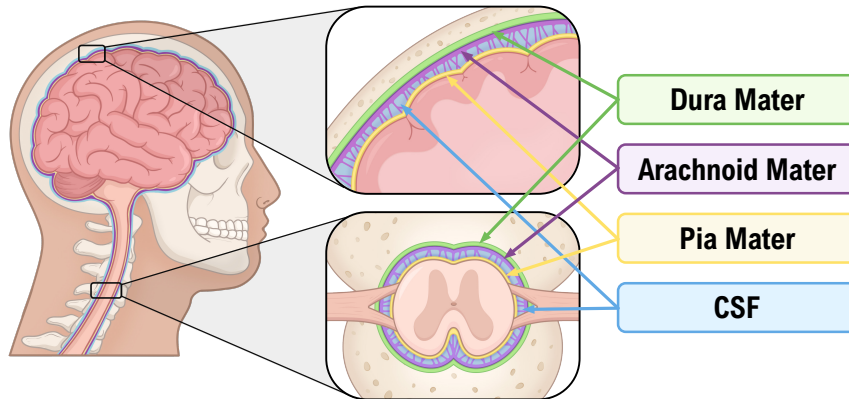


## TOPIC: INTRODUCTION TO MENINGITIS

◆ **Meningitis:** inflammation of the \_\_\_\_\_.

- *Recall:* meninges—\_\_\_ layers of membranes surrounding brain & spinal
- Circulate \_\_\_\_\_ spinal fluid (CSF).
- Inflammation: \_\_\_ pressure on underlying organs & \_\_\_\_\_ blood flow.



◆ Meningitis may be: ▸ \_\_\_\_\_. ▸ Bacterial. ▸ Fungal. ▸ Protozoan.

**Symptoms** — often in rapid progression:

Fever

Stiff neck



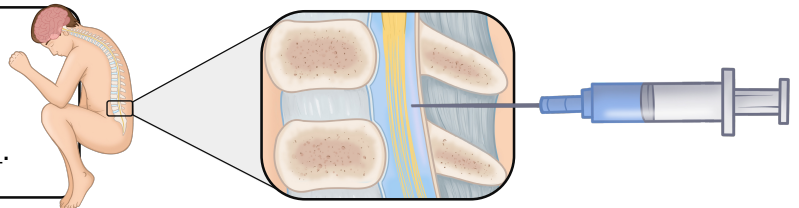
Nausea  
Vomiting



Convulsions

**Diagnosis**

- **Lumbar Puncture (spinal tap):** needle inserted between lumbar vertebrae to withdraw \_\_\_\_\_.



## **TOPIC: INTRODUCTION TO MENINGITIS**

### **PRACTICE**

When performing a lumbar puncture to test for meningitis, what is the practitioner primarily looking for?

---

- a) Evidence of inflammation of the dura mater.
- b) Evidence of bacteria within the pia mater.
- c) Evidence of microbes in the brain or spinal cord tissue.
- d) Evidence of infection in the cerebrospinal fluid.

### **PRACTICE**

Which of the following represents the correct order of the meninges and cerebrospinal fluid in most regions surrounding the brain, starting with the skull and ending with the brain or spinal cord?



---

- a) Dura mater – arachnoid mater – CSF – pia mater.
- b) Dura mater – pia mater – arachnoid mater – CSF.
- c) Dura mater – CSF – pia mater – arachnoid mater.
- d) Dura mater – CSF – arachnoid mater – pia mater.

**TOPIC: INTRODUCTION TO MENINGITIS**

**Comparing Viral and Bacterial Meningitis**

◆ *Recall:* meningitis can be viral, bacterial, fungal, or protozoan.

 <b>Viral Meningitis ( _____ Meningitis)</b>	 <b>Bacterial Meningitis</b>
<p>_____ common; _____ serious.</p> <ul style="list-style-type: none"> <li>▸ _____ fatal.</li> <li>▸ Self-limiting.</li> </ul>	<p>_____ common; _____ serious.</p> <ul style="list-style-type: none"> <li>▸ High _____ without treatment.</li> <li>▸ _____ progression.</li> </ul>
<p>Diagnostic: lumbar puncture (spinal tap).</p> <ul style="list-style-type: none"> <li>▸ _____ pressure.</li> <li>▸ _____ white blood cell count.</li> <li>- _____ CSF.</li> <li>▸ _____ glucose levels in CSF.</li> </ul>	<p>Diagnostic: lumbar puncture (spinal tap).</p> <ul style="list-style-type: none"> <li>▸ _____ pressure w/ spinal puncture.</li> <li>▸ _____ white blood cell count.</li> <li>- _____ CSF.</li> <li>▸ _____ glucose levels in CSF.</li> </ul>
<ul style="list-style-type: none"> <li>▸ _____ specific vaccines.</li> </ul>	<ul style="list-style-type: none"> <li>▸ Vaccines for _____ bacteria.</li> </ul>
<p>Supportive care.</p>	<p>_____ antibiotics.</p>

## **TOPIC: INTRODUCTION TO MENINGITIS**

### **EXAMPLE**

For each statement below, write “V” next to the statement if it applies to viral meningitis and “B” next to the statement if it applies to bacterial meningitis. If the statement applies to neither, leave the line blank.

Statements may apply to one type of meningitis, both, or neither.

---

1. Likely to resolve without intervention: \_\_\_\_\_
2. Can cause stiff neck, fever, and nausea: \_\_\_\_\_
3. CSF is likely to be under high pressure during lumbar puncture: \_\_\_\_\_
4. Is likely to cause elevated glucose levels in the CSF: \_\_\_\_\_
5. Sometimes referred to as “aseptic meningitis”: \_\_\_\_\_
6. CSF will likely be cloudy during lumbar puncture: \_\_\_\_\_

### **PRACTICE**

Following a lumbar puncture, which finding would be most likely to be present in cases of bacterial meningitis?

---

- a) Elevated glucose concentration in the CSF.
- b) Clear/non-cloudy CSF.
- c) Elevated pressure upon puncture.
- d) Lowered white blood cell count.