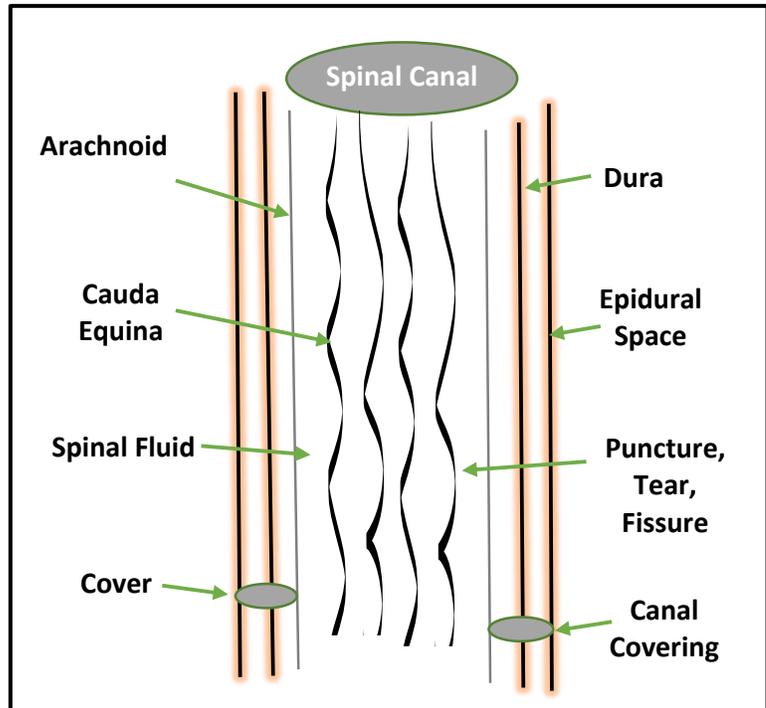


SPINAL PUNCTURE TO
ADHESIVE ARACHNOIDITIS (AA): THE PROCESS

Background:

Spinal fluid is a life-sustaining fluid that provides nutrients, protection, and removal of biologic waste from the brain and spinal canal. It is, however, a toxic irritant if it comes in contact with any tissues other than the surfaces of tissue inside the brain and spinal canal. If the surface cells of the arachnoid lining have a puncture, hole, tear, or crack spinal fluid will enter the interior of the arachnoid and cause a chemical burn (think acid on skin). Sudden pain may occur due to damage inside the arachnoid.



1. Arachnoid membrane opening (puncture, tear, fissure)

2. Spinal fluid enters interior of arachnoid membrane causing a chemical burn – pain begins

3. Inflammation develops and becomes chronic in the arachnoid

4. Inflammation spreads like cellulitis to cauda equina nerve roots. Pain and neurologic symptoms occur

5. Adhesions develop and glue cauda equina nerve roots together into clumps Attachment to the arachnoid membrane also occurs

ADHESIVE ARACHNOIDITIS RESULTS