

# Epidural Workshop

Echuca

19<sup>th</sup> May 2007

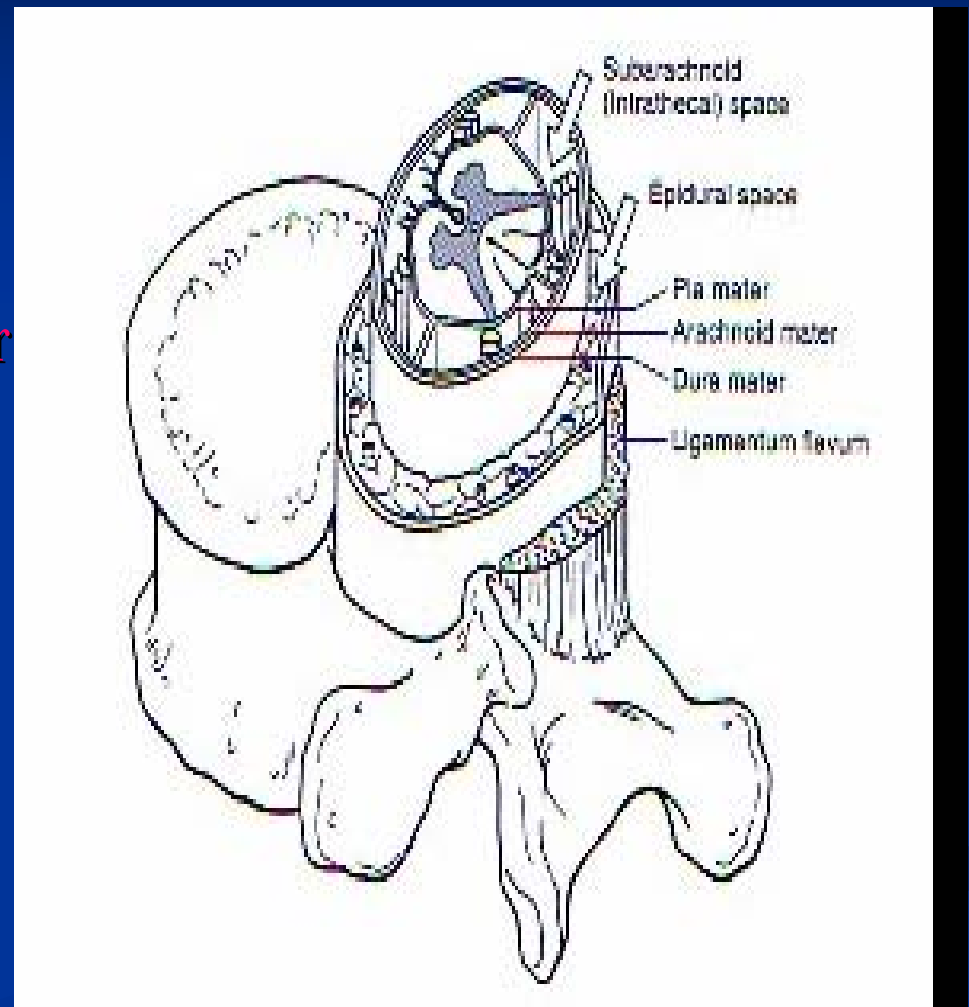
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# Anatomy

- Spinal cord and brain covered by the meninges
- Inner membrane = **pia mater**
- Middle membrane = **arachnoid**
- Outer membrane = **dura mater**



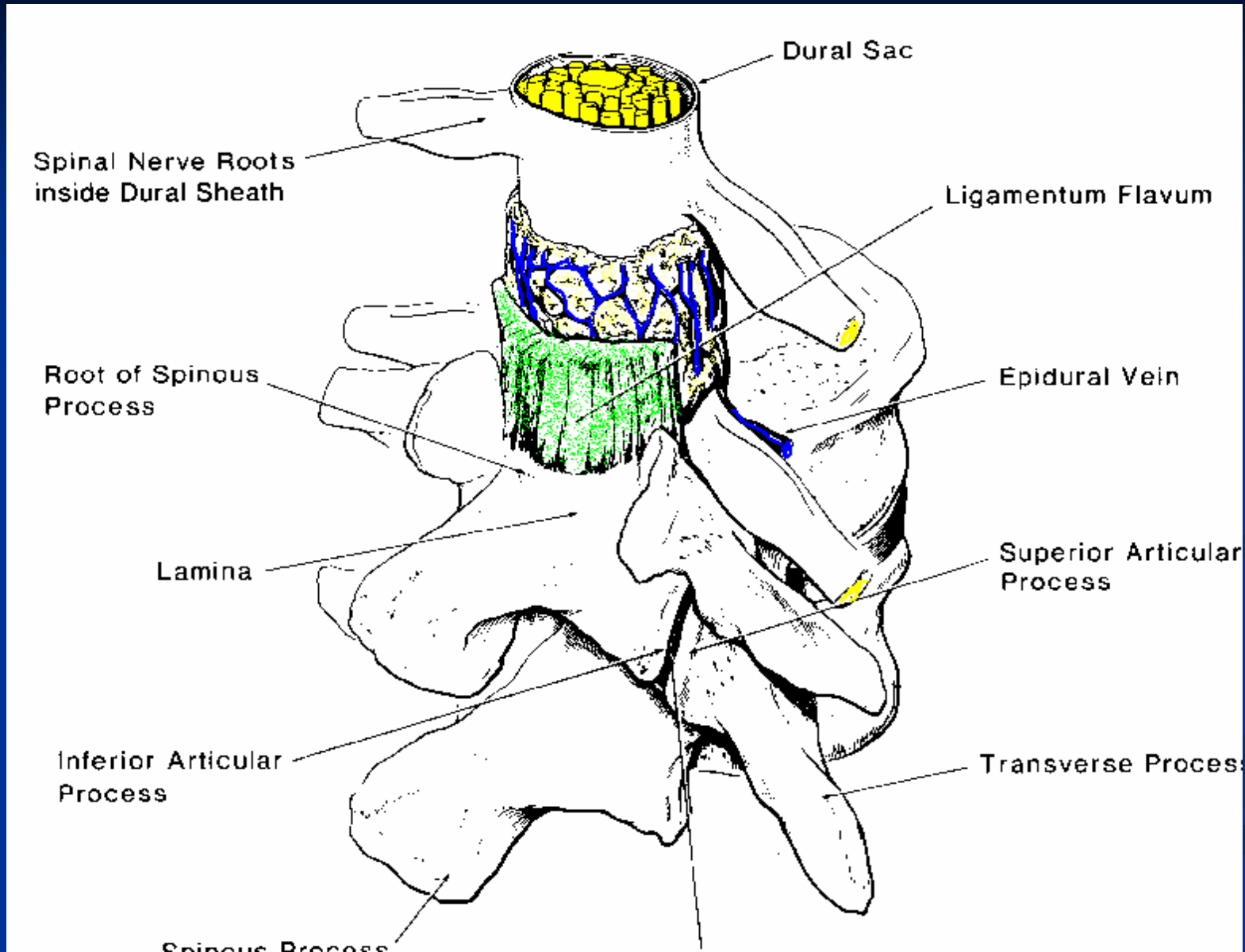
# Where is the epidural space?

- Lies between the dura mater and the bone and ligaments of the spinal canal
- It is only a potential space – it does not contain fluid
- Contains blood vessels, lymphatic vessels, nerve roots, connective tissue and fat

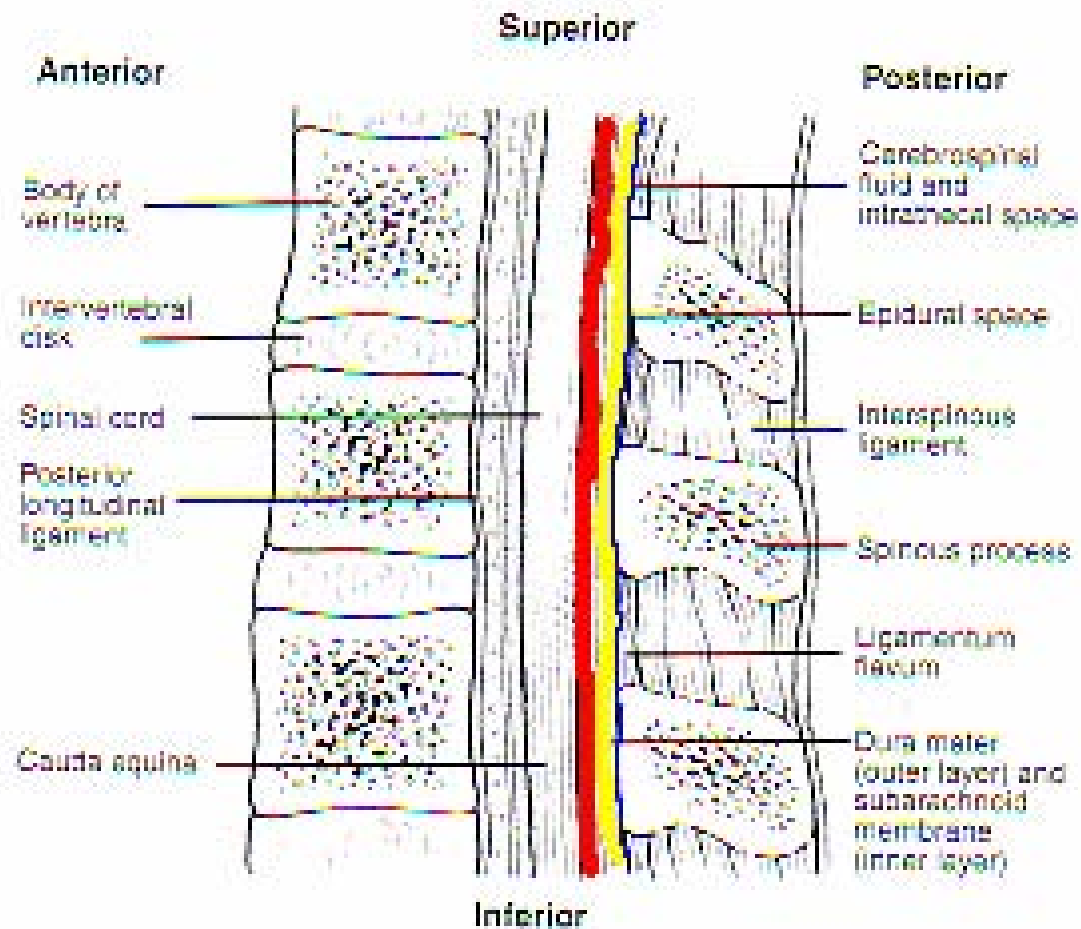
# Anatomy

- Epidural space is approximately 4 – 7cm from the skin
- The epidural space itself is 3-6mm wide
- Varying widths at different points

# SPINAL CORD



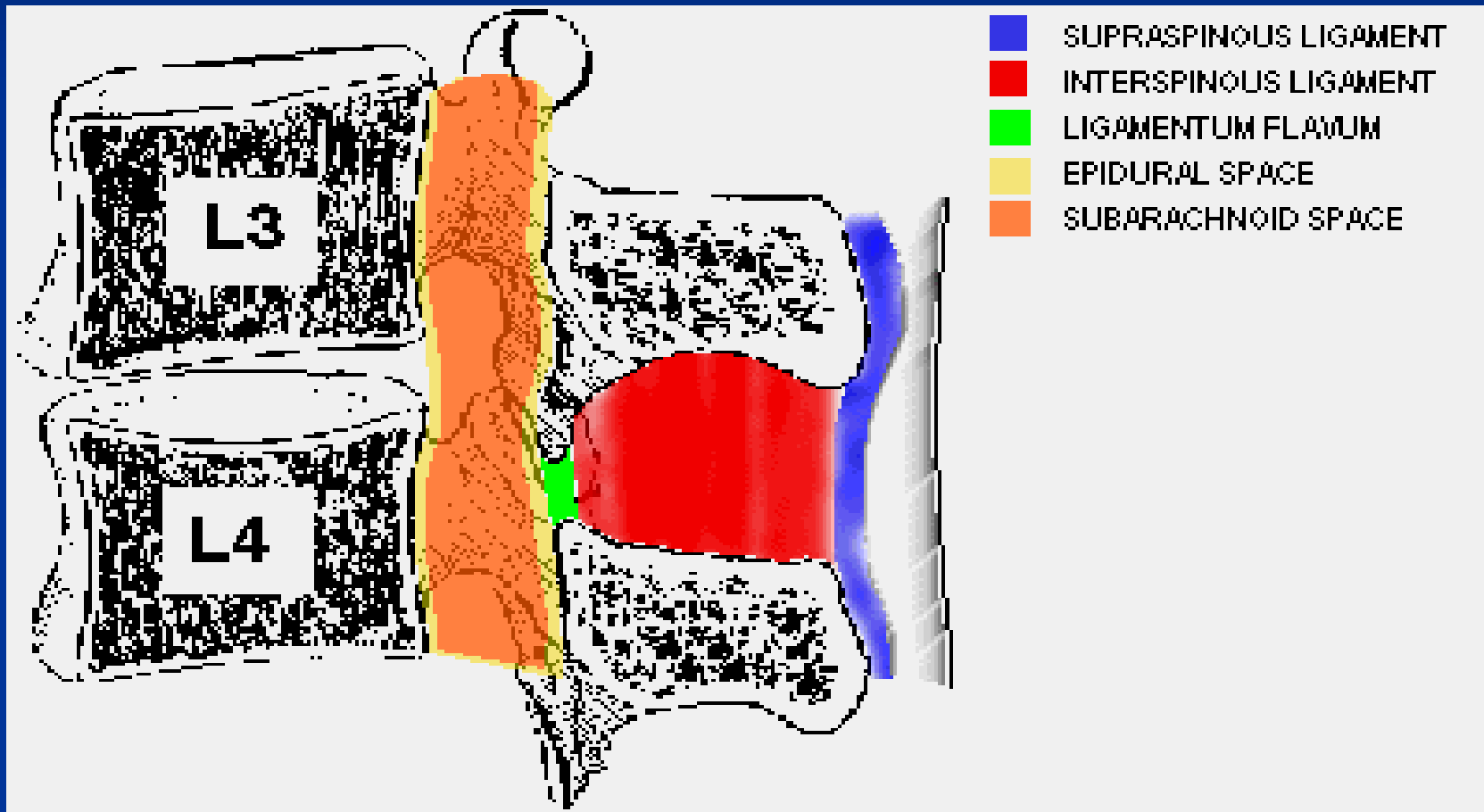
# Anatomy



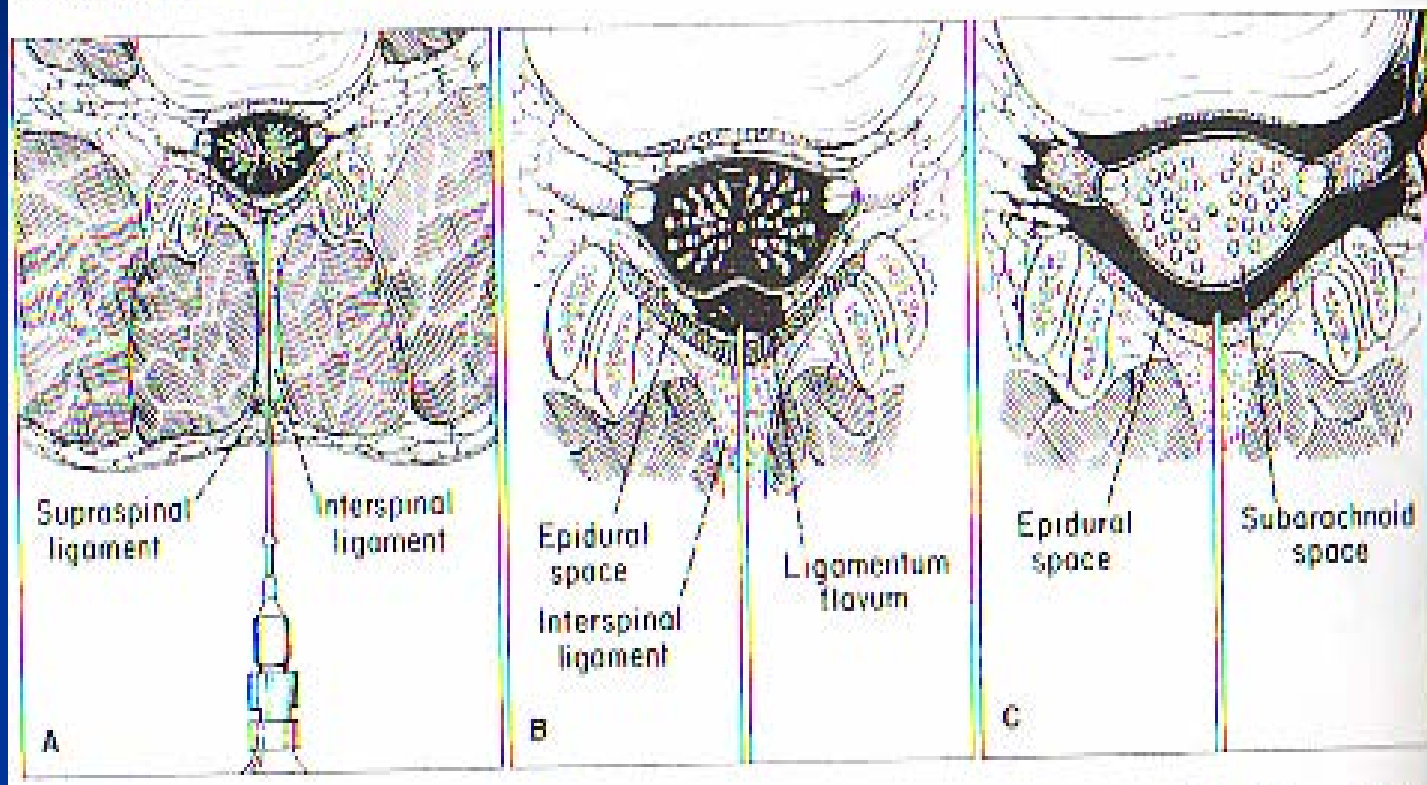
# Equipment



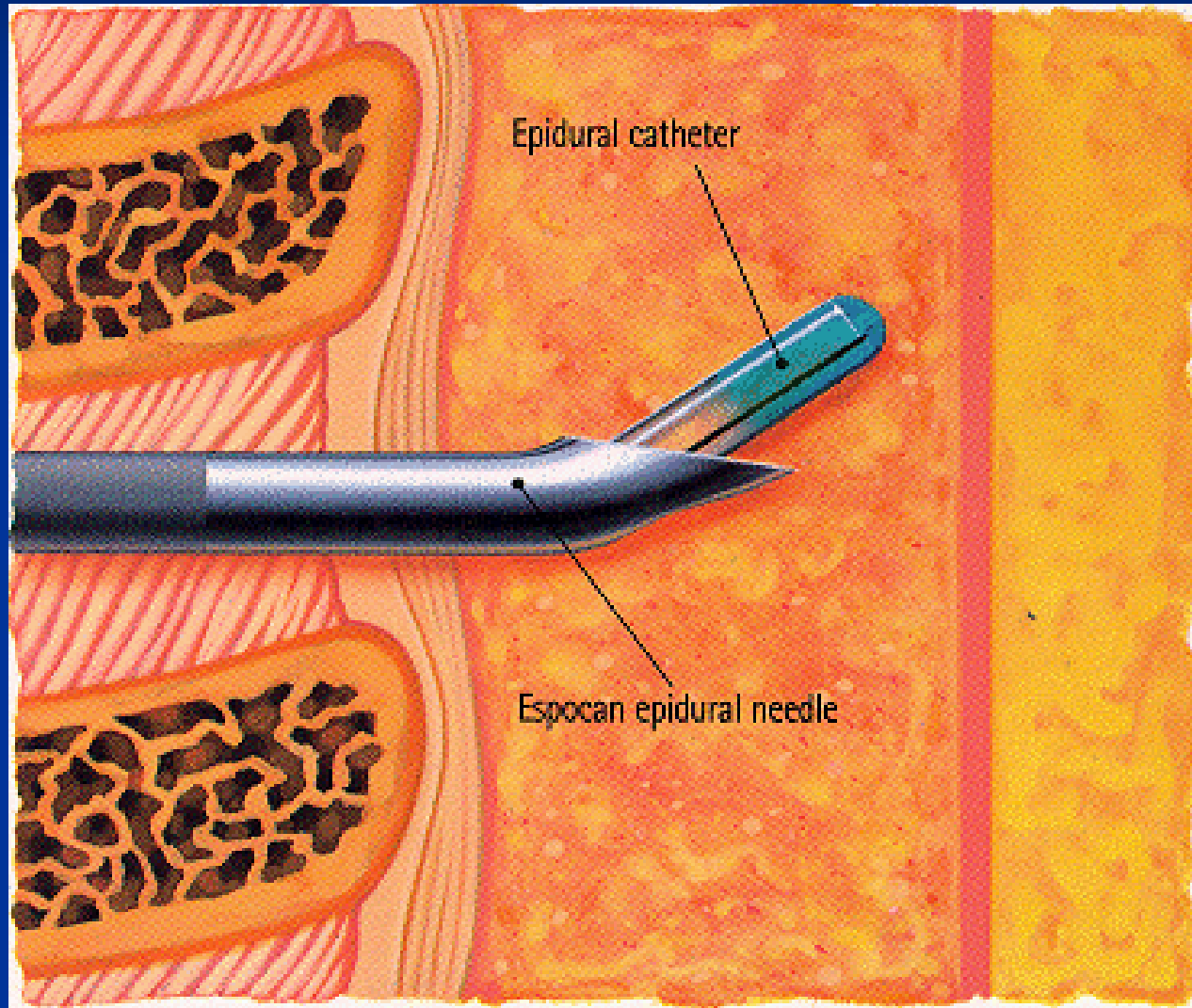
# Epidural Insertion



METHODS FOR SYMPTOMATIC CONTROL



# Catheter placement



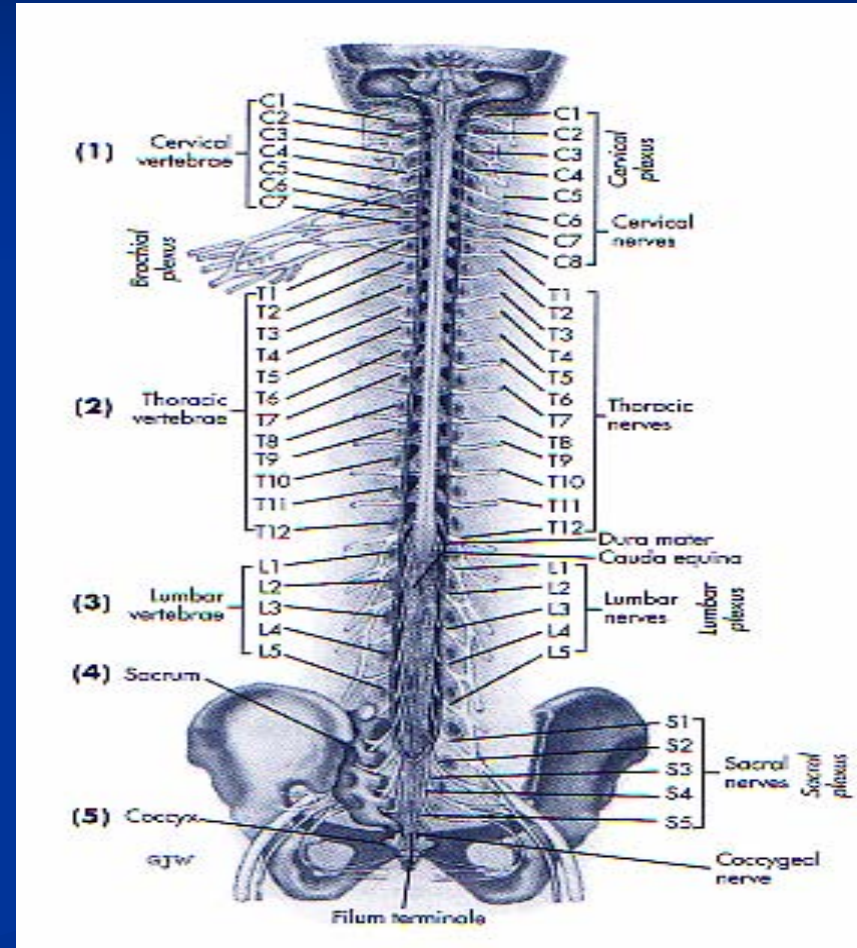
# Catheter markings



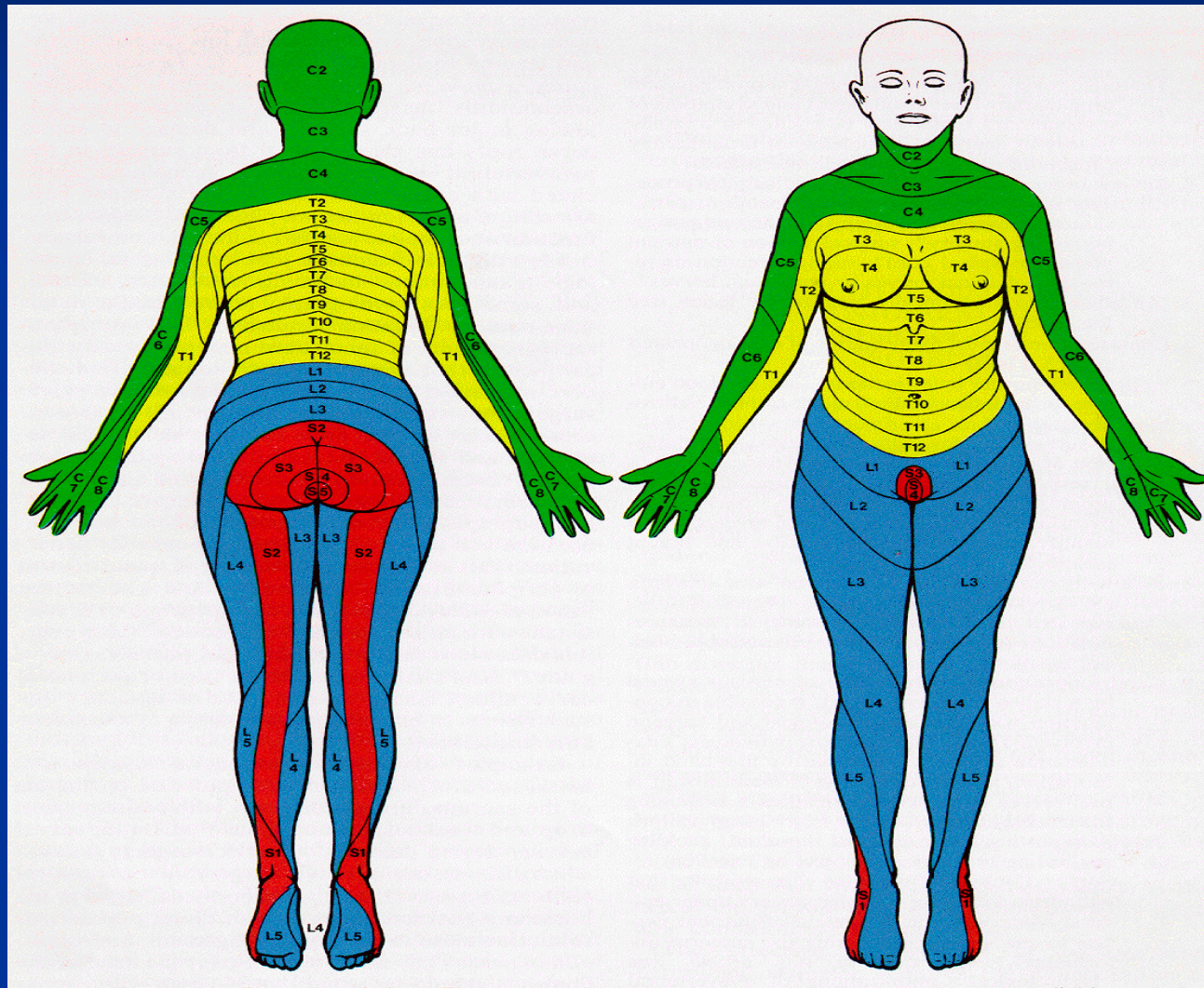
- Blue tip
- Holes are in first 2 cm
- First mark denotes 5cm
- Double band = 10cm
- Triple band = 15cm
- 1cm marks in between

# Dermatomes

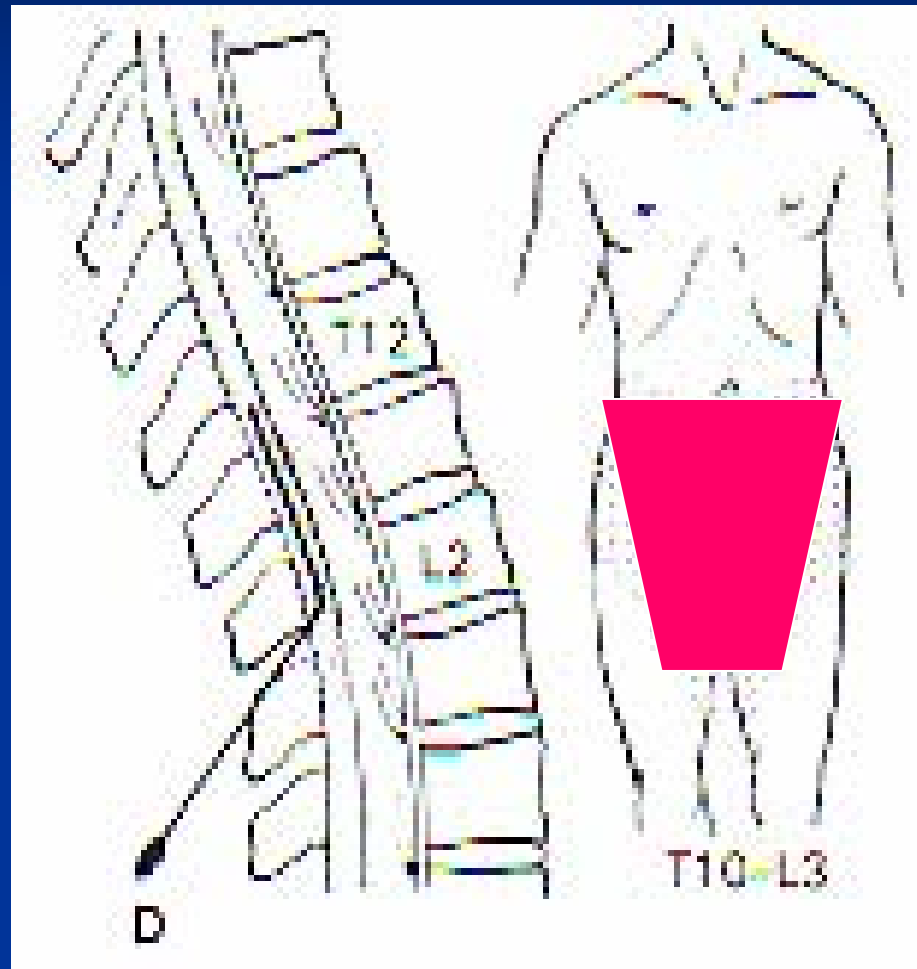
- At each vertebral body level, nerve roots exit spinal cord bilaterally
- Specific skin surface areas are innervated by a single spinal nerve or group of nerves = dermatome



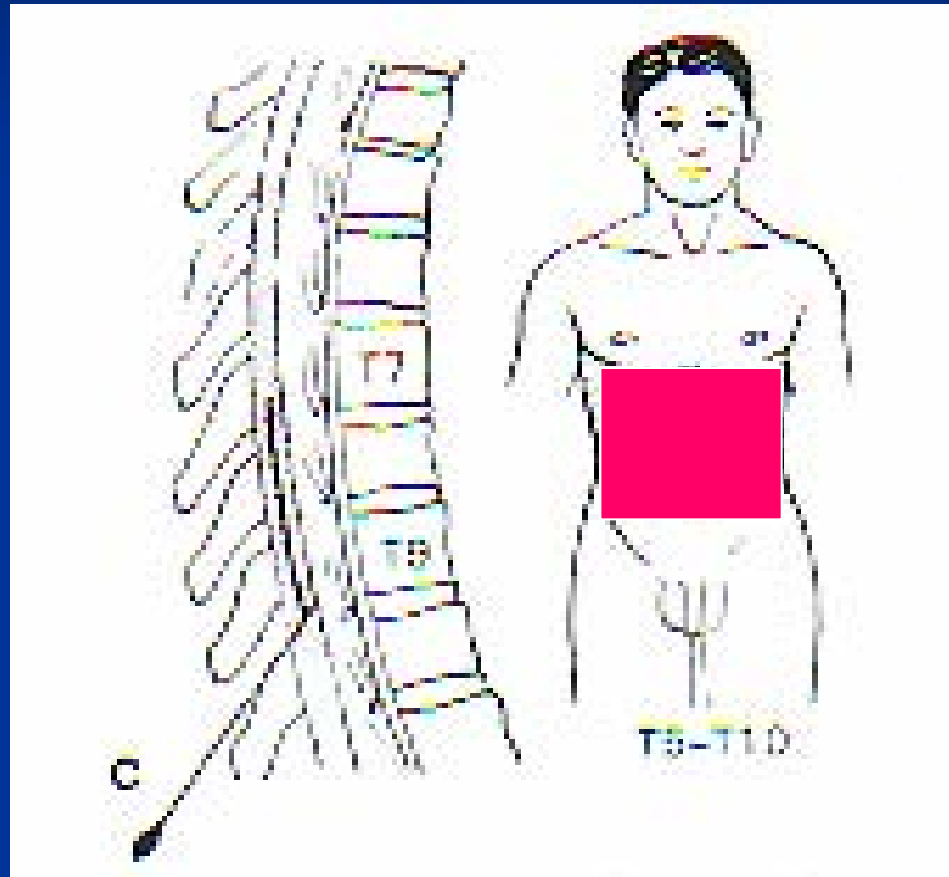
# Dermatome distribution



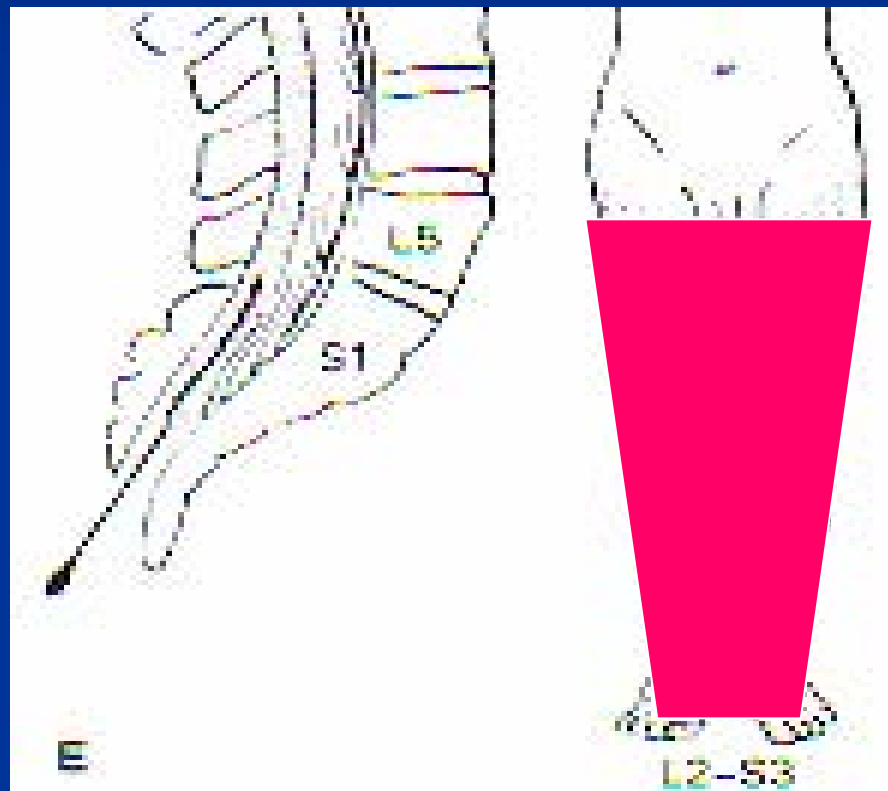
# Dermatome distribution



# Dermatome distribution



# Dermatome distribution



# Summary

- Epidural is a tiny space
- Not far from the skin
- Insertion is potentially dangerous
- Sterile conditions
- IV access prior to insertion
- Performed by an Anaesthetist
- Used in acute, chronic and palliative pain management