

# A case of sheared epidural catheter: where is the piece of plastic?

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- **Patient Presentation**

- During labor epidural placement, LOR obtained at 8cm
- Catheter advancement paused until LLE paresthesia resolved
- During catheter readvancement, unable to thread catheter past 15cm
- **Gentle backwards traction applied on catheter; catheter fracture noted** (Image 1)
- Needle and catheter removed as whole unit
- Although entire wire intact, distal 5cm plastic portion of catheter sheared off, concerning for retained plastic catheter fragment



**Image 1:** Sheared epidural catheter  
(photo used with patient permission)

# Management of a Sheared Epidural Catheter<sup>1</sup>

1. Inform patient; offer epidural replacement at different interspace vs. alternative analgesia options
2. Report to product manufacturer- *is catheter radio-opaque?*
3. Obtain **total spine imaging**: identify fragment and rule out cephalad catheter migration
  - Computed tomography (CT)
4. Neurosurgery Consult
  - Observation if:
    - Catheter fragment not penetrating skin nor seen intrathecally
    - Asymptomatic
  - Surgical removal if:
    - Retained *intrathecal* fragment
    - Infection
    - Catheter puncturing skin serving as portal of entry for infection
    - New onset symptoms- ex. radicular pain from nerve entrapment

# How to prevent a sheared epidural catheter? *Take Home Points*

1. **DO NOT** pull backward traction on epidural catheter while still within the needle
2. Remove the catheter and needle as a **whole unit**
3. Do not thread catheter more than **4–5 cm** in the epidural space to prevent coiling, knotting, entrapment of catheter

