WELCOME *To the*

2026 SYMPOSIUM

How I Do It : PD Catheter Insertion Interventional Radiology

VASA Vascular Access Society of the Americas

Access Excellence.

MAY 20-22, 2026 • HILTON SALT LAKE CITY CENTER • SALT LAKE CITY, UTAH

Learning objectives

- Review indications and patient selection for percutaneous PD catheter placement
- Discuss pre-procedural evaluation and preparation
- Demonstrate step-by-step catheter insertion technique
- Highlight technical pearls and common pitfalls

Indications and contraindications

- Indications
  - End stage renal disease
  - Acute renal injury
  - Cardiorenal syndrome
- Contraindications
  - Extensive intra-abdominal adhesions
  - Abdominal fibrosis
  - Hernia or abdominal wall defect
  - Active inflammatory bowel disease
  - Recurrent diverticulitis or abdominal infection
  - Intra-abdominal malignancy

Patient Selection

- Preprocedural imaging
- **Noncontrast CT** should be considered in patients with:
  - Prior abdominal surgery
  - Known or suspected hernia
  - Prior hernia mesh repair
  - Prior abdominal infection
- **Pre-procedural ultrasound** should be performed in clinic to:
  - Evaluate for adhesions
  - Assist in selecting the optimal catheter insertion site

Pre procedure prep

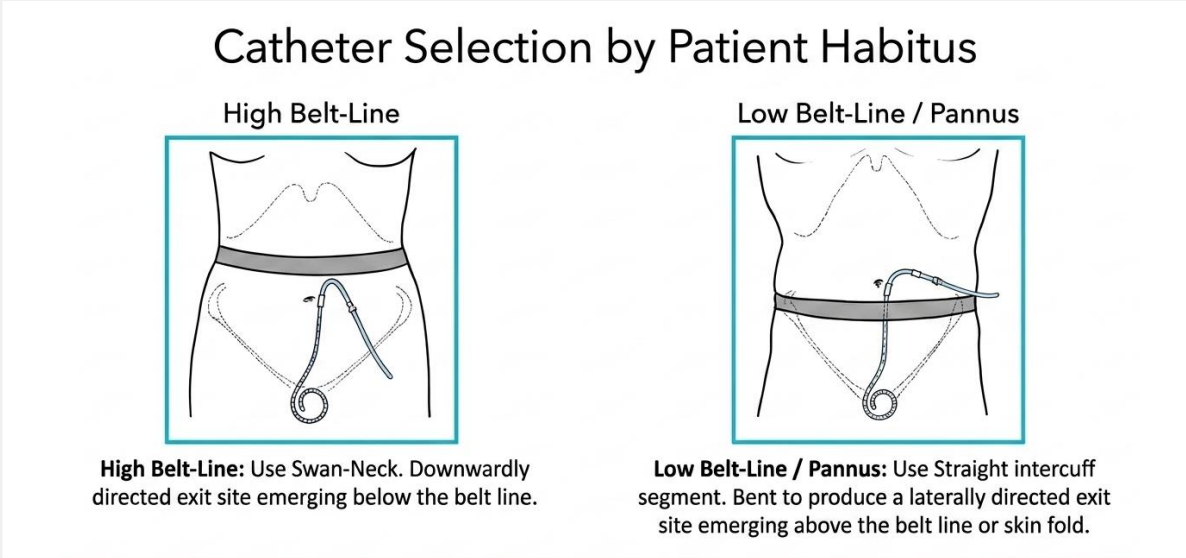
- Pre-procedure labs
  - Platelets > 50,000
  - INR < 1.5
- Bowel prep
  - ½ of standard colonoscopy prep with polyethylene glycol the day prior to the procedure to reduce bulk of stool in the colon.

Equipment & Catheter Selection

- Repeat ultrasound on the day of the procedure
  - Confirms absence of adhesions at the planned insertion site
  - Ensures no large vessels along the path of insertion.
- Catheter selection
  - Multiple catheter designs are available
  - Proceduralist should be familiar with several types

Exit Site Planning

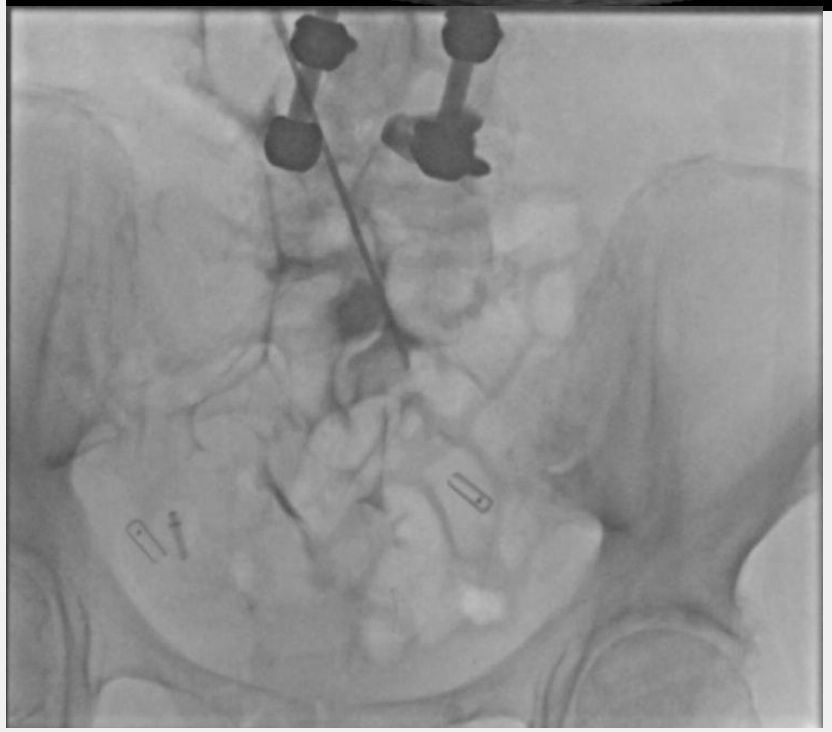
- In patients with a **high-lying beltline**, a Swan-neck catheter may be placed with:
  - A downward-directed exit site
  - Exit below the beltline
- In patients with a **low-lying beltline or redundant tissue**:
  - A more laterally directed exit site
  - Exit above the beltline
- **Optimal pelvic positioning for coiled catheters**:
  - Align the upper border of the coil with the upper border of the pubic symphysis



Peritoneal Access

- Antibiotic prophylaxis:
  - Vancomycin 1 g **or**
  - Cefazolin 1 g
- Skin marking and sterile preparation
- Moderate sedation initiated
- Local anesthesia with lidocaine
- 1.5–2 cm skin incision
- Under ultrasound guidance, needle advanced into the peritoneal cavity
- Small amount of dilute contrast injected to confirm intraperitoneal position





Catheter Placement

- Wire and catheter advanced into the pelvis
- Tract serially dilated
- Peel-away sheath placed
- Catheter advanced over a wire through a peel away sheath with tip coiling in pelvis
- Catheter tunneled to the pre-marked exit site
- Contrast injected to confirm appropriate catheter position



Testing and closure

- **Catheter Testing**
  - Instill and drain 2 liters of warmed saline
  - Confirm adequate inflow and outflow
- **Closure**
  - Incision closed with absorbable suture
  - Dermabond applied
- **No sutures placed at the catheter exit site**

Follow-Up

- Patient instructed not to shower or manipulate dressings until instructed
- Dressing care directed by PD nursing team
  - Pt. scheduled to see PD team within 24 hours of insertion.

Key takeaways

- Careful patient selection improves technical success
- Pre-procedure imaging is critical for planning
- Pre-procedural exit site planning can improve patient comfort and prevent complications down the road
- Attention to technical details can ensure adequate catheter functioning and prevent placement related complications.