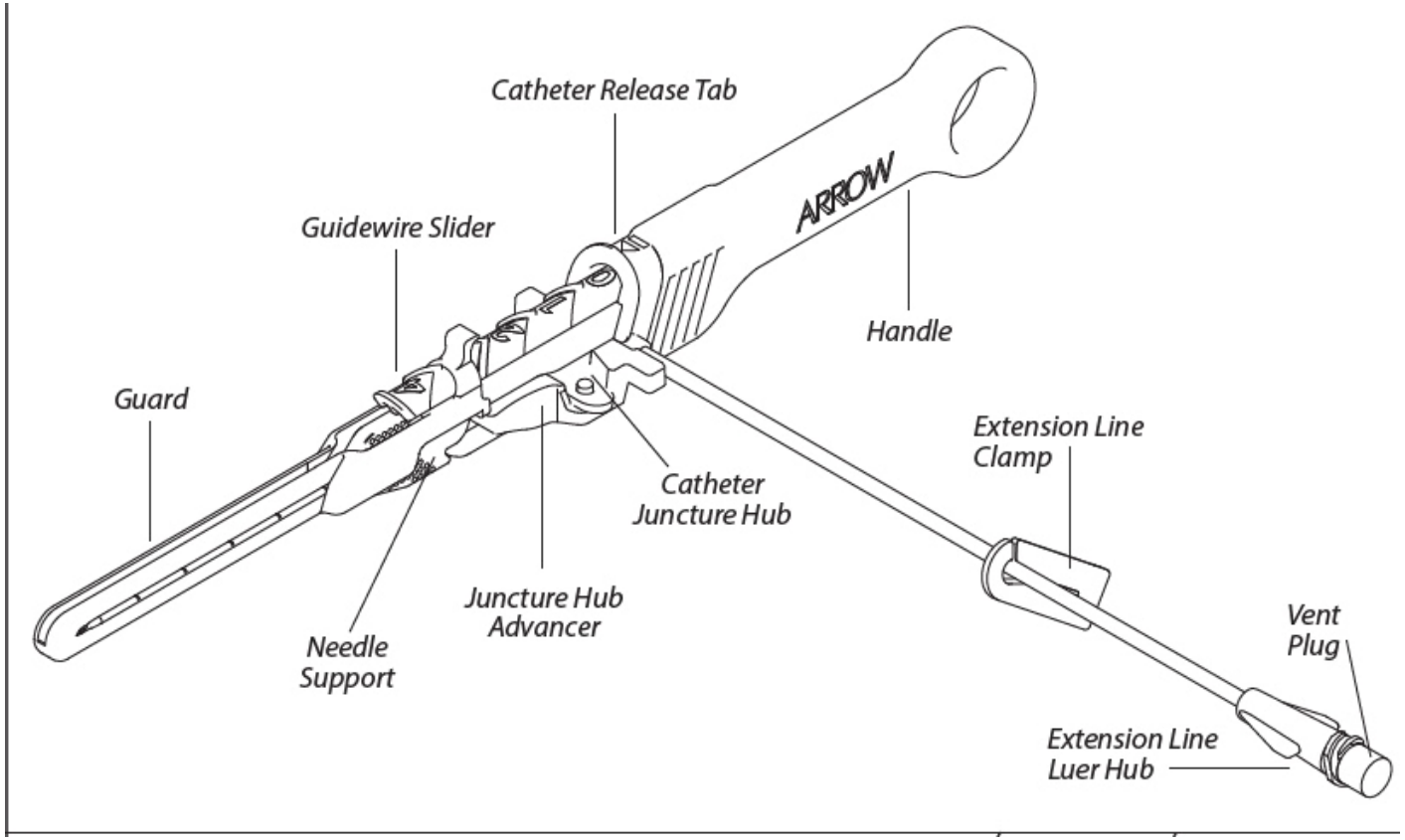


Extended Dwell Peripheral Catheters

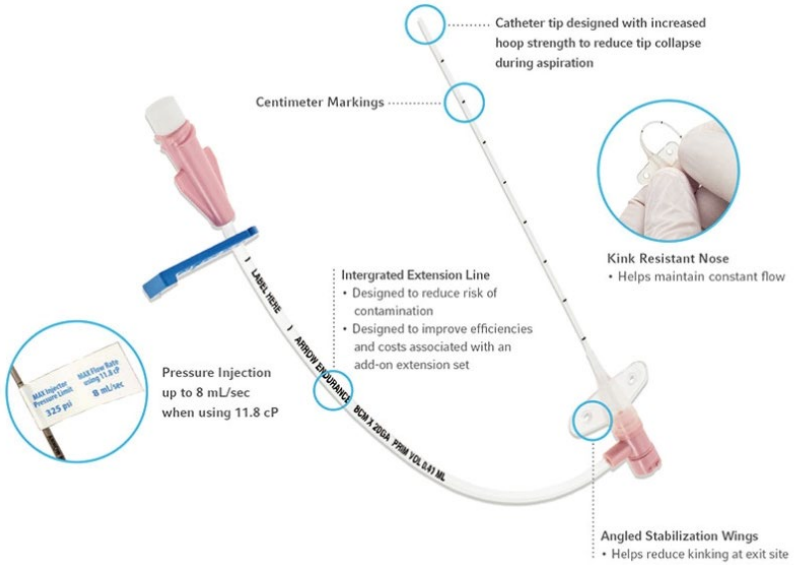
By Amanda Lizotte

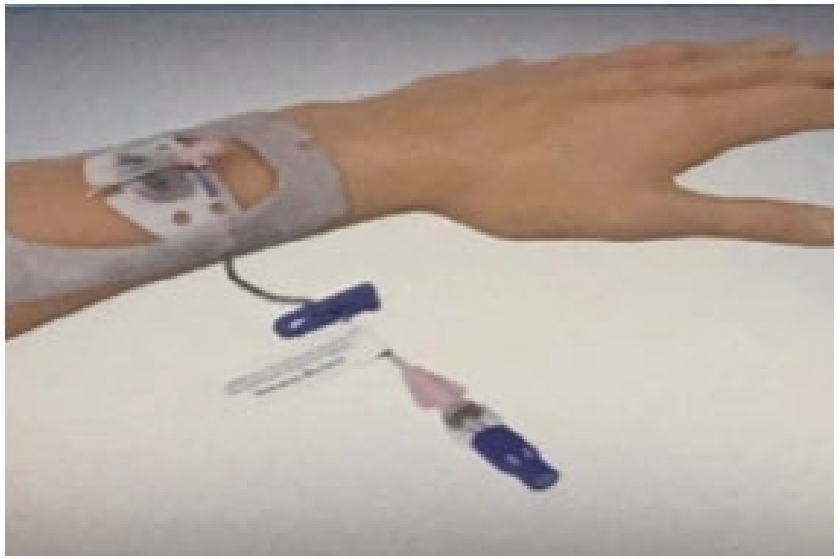
What is an Extended Dwell Peripheral Catheter (EDPC)?

- Sterile, single use peripheral intravascular device designed to permit access to the peripheral vascular system
- The catheter is intended for short term use to permit delivery of infusion therapies, infusion of blood and blood products, pressure monitoring, high pressure injection at a maximum of 325 psi, and withdrawal of blood
- Current uses:
  - Venous access
  - Arterial access
  - Pressure injection

Types of EDP Catheters

- 22 Gauge X 6cm
- 22 Gauge X 8cm
- 20 Gauge X 6cm
- 20 Gauge X 8cm
- 18 Gauge x 8cm





WHAT DOES AN EXTENDED DWELL PERIPHERAL CATHETER LOOK LIKE?

Potential Complications

- Phlebitis
- Thrombophlebitis
- Venous thrombosis
- Occlusion
- Infiltration
- Catheter embolus
- Septicemia
- Inadvertent arterial puncture
- Nerve injury
- Hematoma
- Air embolism
- Site infection
- cellulitis

Dressing Procedure

- Frequency
  - Every 2 days for gauze dressings
  - Every 7 days for transparent semi-permeable dressings(Tegaderm)
  - PRN whenever compromised by moisture, drainage, blood
- Supplies
  - Gloves- sterile & non-sterile
  - Alcohol applicator(wipe/swab)
  - Antimicrobial applicator(wipe/swab)
  - 4X5in Tegaderm
  - Steri-strips or securement device
  - Skin prep swab/wipe
  - Mask
  - Trash bag
- Procedure
  - Adhere to standard precautions
  - Explain the procedure and purpose to the patient/caregiver
    - Ask about allergies to creams/solutions
  - Prepare for procedure
    - Assemble equipment on clean surface
    - Place patient in comfortable position
  - Ensure adequate lighting
  - Remove current dressing and assess site
    - Assist patient to don mask
    - Don mask and sterile gloves
    - Support and anchor catheter tube with non-dominant hand
    - Slowly loosen transparent dressing at distal end
    - Peel dressing towards exit site, parallel to the skin
    - Inspect site for signs and symptoms of infection.
    - Remove gloves and perform hand hygiene

Dressing Procedure Cont.

- Create a Sterile Field and Cleanse site
  - Don sterile gloves
  - Prepare sterile field and prepare supplies
  - If using chlorhexidine, scrub back and forth, 30 seconds for each swab. Allow to air dry
  - Clean exit site out at least 4 inches in diameter. Allow to air dry. Do not blot. Follow with betadine swabs. Allow to dry for 2 minutes
- Apply new dressing
  - Anchor the catheter to the skin using Steri-strips, sterile tape, or securement device
  - Apply transparent permeable adhesive dressing (Tegaderm). Dressing must cover entire exit site, catheter, and extension tubing connector leaving only the injection port accessible for therapy and procedures
  - Measure arm circumference 2 inches above insertion site and record
  - Write date, time, initials on dressing
  - Discard soiled supplies in appropriate containers

Injection Port (cap) change

- Frequency:
  - Every 7 days
  - PRN for slow flushing, clog
- Supplies
  - Gloves
  - Alcohol applicator(wipe/swab)
  - Injection port
  - Prefilled saline (10mL) or heparin (5mL) syringe
  - Tape
  - Puncture proof container
  - Trash bag
- Procedure:
  - Adhere to standard precautions
  - Explain the procedure/purpose
  - Assemble equipment on a clean surface
  - Place patient in a comfortable position
  - Ensure adequate lighting
  - Remove air from prefilled syringe (saline or heparin)
  - Open protective packaging of new cap
  - Insert heparin/saline syringe into injection port
  - Slowly inject flush to prime cap and extension if used

Cap change procedure cont.

- Wrap alcohol wipe around junction until cap is removed:
  - Remove old cap
  - Clean end of catheter
  - Remove protective cover from new cap
  - Attach new pre-filled cap, twisting firmly to secure
  - Tape extension set and injection port junction
- Inject 5mL heparin solution or 10mL saline syringe, using steady pressure
- In the port has a positive pressure valve, exert positive pressure on syringe as while removing and clamping
- Remove Syringe
- Discard soiled supplies in appropriate containers

Flushing procedure

- Frequency
  - Daily if heparin is utilized
  - Twice daily without use of heparin
- Supplies
  - Gloves
  - Alcohol applicator(wipe/swab)
  - Syringe(10mL) normal saline
  - Syringe of 3-5mL of Heparin 10units/mL or as ordered
  - Tape
  - Puncture proof container
  - Trash bag
- procedure
  - Adhere to standard precautions
  - Explain procedure and purpose
  - Assemble the equipment on a clean surface close to the patient
  - Place patient in a comfortable position
  - Ensure adequate lighting
  - Prepare syringes by removing air from saline and heparin, if ordered
  - Clean cap with alcohol applicator, using friction for at least 15 seconds. Allow to air dry.
  - If medication is administered follow SASH method.

Flushing Policy Cont.

- If medication not administered, insert saline-filled syringe into cap
- Inject solution slowly using push-pause method
- Remove saline syringe from cap
- If heparin is ordered:
  - Clean cap with alcohol applicator, using friction for at least 15 seconds. Allow to air dry
  - Insert heparin-filled syringe into cap
  - Inject solution slowly using push-pause method
  - Remove syringe
- If port does not have a positive pressure adapter, before syringe is completely empty, clamp line and apply pressure on plunger while withdrawing syringe.
- Discard soiled supplies in appropriate containers

EDPC Removal

- MD order must be present
- Removal is based on:
  - Length of therapy
  - Condition of site
- Supplies
  - Mask
  - Gloves
  - Chlorohexidine swab/alcohol swab
  - Gauze
  - Tegaderm

- Procedure
  - Remove dressing according to procedure listed above
  - Cleanse area with Chlorohexidine swab or alcohol/betadine combination
  - Allow to dry for 2-5 minutes
  - Place gauze over insertion site
  - Remove catheter slowly
  - Apply digital pressure until hemostasis
  - Apply sterile occlusive dressing to remain intact for 24-48 hours
  - Measure catheter to ensure entire catheter has been removed

Blood draws from EDCP

- Before you start you must have:
  - MD order to preform line draw
  - Ability to preform line draw with strict aseptic technique and universal precautions
- Gather supplies
  - 10mL saline syringe(3)
  - Non-sterile gloves
  - Leur-lok vacutainer adapter
  - 10cc waste tube
  - Appropriate lab tubes
  - Alcohol prep pads
  - 5mL heparin flush(if required)
  - Sharps container

EDPC Blood Draw Continued

- Procedure
  - Explain procedure to patient
  - Was hands and don gloves
  - Cleanse around hub of catheter and injection cap with alcohol for 20 seconds
  - Unclamp catheter
  - Flush with 5cc of normal saline and draw back until you obtain blood return in syringe. Remove syringe and clamp line
  - Cleanse cap with alcohol for 20 seconds and attach vacutainer adapter to hub
  - Unclamp line
  - Push 10cc waste tube into vacutainer adapter, once filled remove tube and discard into sharps container
  - Push appropriate lab tubes into vacutainer holder, remove once filled
  - Clamp line
- Remove vacutainer holder
- Remove cap, cleanse hub for 20 seconds with alcohol and apply new cap
- Unclamp line
- Flush with (2) 10cc syringes of normal saline
- Flush with heparin as ordered
- Dispose of vacutainer in sharps container
- Remove gloves and wash hands
- Label tubes with name/DOB/date/time/initials
- Document procedure and lab location to which blood will be sent

Documentation

- The following should be documented in patient chart :
  - At SOC
    - Product name
    - Date of insertion
    - Anatomical location
    - Catheter gauge/length internally
    - Amount, type, frequency of flushes
    - Mid arm circumference 2 inches above insertion site
  - Weekly/PRN:
    - Dressing change/cap change
    - Mid-arm circumference 2 inches above insertion site
  - Every visit
    - Temp, pain, condition of site, blood return
    - Complications
      - Notification to MD of complications