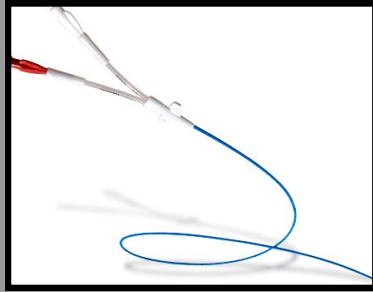


Types of Catheters

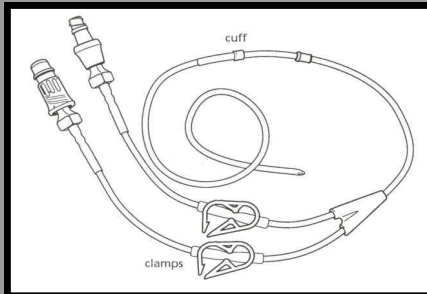
Groshong Catheter



Hickman Catheter



Broviac Catheter



PICC Line



SBS Foundation

Educational Series

Central Line Specifications



Short
Bowel
Syndrome
Foundation



Short Bowel Syndrome Foundation, Inc.
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Empowering patients to live fuller lives, creating a lifeline of hope.

Catheter Specifications

Depending on its use, the catheter is monoluminal, biluminal or triluminal, dependent on the actual number of lumens (1, 2 and 3 respectively). The line is held in place by an adhesive dressing, suture, or staple which is covered by an occlusive dressing. Regular flushing with saline or a heparin-containing solution keeps the line patent and prevents thrombosis. Certain lines may be impregnated with antibiotics, silver-containing substances (specifically silver sulfadiazine) and/

or chlorhexidine to reduce infection risk.

Total Parenteral Nutrition and the Central Line

TPN is a very concentrated nutritional formula and cannot be given through peripheral veins as it is irritating to the vein. By giving it through a central line into a large vein the TPN gets diluted quickly as there is a greater volume and flow in a central vein versus a peripheral one.



Types of Catheters

Non-Tunneled Ports

- Line fixed in place at site of insertion, with the catheter and attachments protruding directly.

Tunneled Ports

- Passed under the skin from insertion site to a separate exit site, where the catheter and its attachments emerge from underneath the skin.
- Commonly used tunneled catheters include **Hickman, Groshong & Broviac**.
- Hickman lines have a "cuff" under the skin, to prevent bacterial migration and to cause tissue ingrowth into the device for long term securement.
- **Hickman catheters**: require clamps to make sure the valve is closed
- **Groshong catheters**: have a valve that opens as fluid is withdrawn or infused, remains closed when not in use
- **Broviac catheters**: The catheter proceeds to a position just above the heart. In general, a Broviac is tunneled under the skin and brought out on the chest or thigh away from the site where it enters the vein.

PICC Line

- A **peripherally inserted central catheter**, or "**PICC**", is a central venous catheter inserted into a vein in the arm rather than a vein in the neck or chest.

Potential Complications

Catheter associated bloodstream infection

is serious, but can usually be successfully treated with antibiotics. If the infection is bad enough the line may need to be removed.

Pneumothorax (Collapsed Lung) (for central lines placed in the chest) the incidence is incumbent and occurs during insertion, higher with subclavian vein catheterization.

Thrombosis (Blood Clots) can sometimes form as a result of central line placement.

Arrhythmias may occur during the insertion process when the introducer wire comes in contact with the heart. It typically resolves when the wire is pulled back.

Remember the 4 "C"s while at home

- 1) Keep the site **COVERED**
- 2) Keep the site **CLEAN**
- 3) Keep the line **CLAMPED**
- 4) Keep the ends **CAPPED**