Groshong® Catheter Care for Pediatrics
# Table of Contents

## Learning About the Groshong® Catheter

- Benefits ........................................................................................................................................ 2
- Placement ..................................................................................................................................... 2
- After Placement .......................................................................................................................... 3

## Caring for Your Child’s Groshong® Catheter

- Preventing Infection .................................................................................................................. 3
- Site Care for First 2 – 4 weeks ................................................................................................... 5
- Dressing Changes ....................................................................................................................... 6
- Once Your Child’s Catheter Has Healed ..................................................................................... 6
- Sensitive Skin Care ..................................................................................................................... 7
- Flushing the Catheter .................................................................................................................. 9
- Changing the needleless connector ............................................................................................ 10
- Groshong® Catheter Supply Checklist ...................................................................................... 11

## Problem Solving .......................................................................................................................... 12
Learning About the Groshong® Catheter

The Groshong® catheter is a narrow plastic-like hollow tube. It is tunneled under the skin and placed in one of the veins just under the collarbone. The catheter is placed just above the heart (see picture). The Groshong® catheter has many uses.

- Drawing blood
- Chemotherapy
- IV fluids
- Blood transfusions
- IV nutrition

Benefits

1. Comfort – Fewer needle sticks are required.
2. Safety – Secure access into your bloodstream that can be maintained as long as it is needed.
3. Independence – Many treatments can be done on an outpatient basis.

Placement

Your child’s Groshong® catheter will be placed in the operating room or Interventional Radiology. Placement often takes about 30 minutes. There is some waiting and observation time. Therefore, the entire process may take 2 – 4 hours.

Medicines may be given to help your child relax. A local anesthetic is used to numb the area where the incisions are made. The first incision is made just below the collarbone. This is where the catheter enters the large blood vessel that leads to the heart. This place is called the “entrance site.”

The entrance site will have paper “stitches” called steri-strips holding it closed. These will fall off as the site heals.

The rest of the Groshong® catheter is tunneled under the skin where the second small incision is made. This is the “exit site”, where the catheter exits the body. At the exit site, a few stitches will be placed to hold it in place until the tissue can heal. These stitches may be removed by your child’s nurse or doctor in 2 – 3 weeks.

The Groshong® catheter does not need a clamp. It has a two-way valve which prevents blood from backing up into the catheter.
After Placement

A chest x-ray will be taken to confirm proper placement.

Your child may feel some neck and/or shoulder pain and stiffness for a couple of days. Pain medicine may be ordered for your child.

It is normal to have a small amount of bleeding around the exit site for 1 – 2 days. If the bleeding increases or does not stop, contact your child’s nurse or doctor.

Check with your child’s doctor before resuming any strenuous activity.

Bathing

- Your child will be able to shower in 24 – 48 hours. Cover the Groshong® and the hub with occlusive plastic and tape. Other options are: Ziplock® bag or AquaGuard® (800-426-1042).

- The catheter should never be below the level of water in the tub while bathing.

- Swimming may not be allowed. Consult with your child’s doctor.

Caring for Your Child’s Groshong® Catheter

Preventing Infection

To prevent infection, you will need to keep the exit site and the opening to the Groshong® sterile. Your child’s nurse will show you how to do this.

- Wash your hands well. Be sure to clean under your nails. You may want to use a nail brush. Scrub your hands with soap and water for 15 – 30 seconds. Rinse well. Dry your hands with a clean towel.

- Use only tubing, IV bags, and other supplies that are sterile.

- Never let anything touch the connection end of the catheter or the end of the needleless connector that attaches to the catheter.

- Never touch the hub of the syringe.

- Always clean the top of the needleless connector with an alcohol swab using a ‘juicing’ method for 15 seconds. Allow it to air dry for 10 seconds before accessing. (Note: do not allow the end of the needleless connector to touch anything after you’ve cleaned it with an alcohol swab and before accessing with a syringe or IV line.)
• Always clean your work area with soap and water. Let it dry before setting up supplies.

• Handle gauze pads or transparent dressings only at the edges.

• Check expiration dates on your medicines and supplies.

• Always store your supplies in a dry place.

Other Helpful Points

• Never use scissors, pins, or sharp objects near your child’s catheter.

• Carry a rubber band and sterile gauze in case the cap leaks or the catheter is accidentally broken. In the event of a break, pinch off the catheter in between the break and skin. Cover the end with sterile gauze and secure with a rubber band. Call your child’s doctor immediately.

• If your child’s skin becomes irritated from tape or the dressing, ask your child’s nurse for other options, which may include skin prep.

• Keep the catheter coiled or looped and taped to the chest at all times to prevent it from being pulled out or damaged.

• A Biopatch® may be recommended for new catheters with sutures in place. Your child’s nurse will instruct you how to apply the Biopatch® around the exit side. The Biopatch® goes on with the blue side up.
Site Care for First 2 – 4 weeks
(Note: Pre-packaged dressing kits may also be provided.)

Supplies:

- 1 ChloraPrep®
- 1 roll of tape
- 1 gauze dressing or 1 transparent adhesive dressing
- exam gloves
- skin prep (optional)

Steps:

1. Prepare a clean work surface.

2. Gather supplies.

3. Wash hands well for 30 seconds.

4. Put on clean gloves.

5. Carefully remove the old dressing.

6. Inspect the exit site for signs of infection: redness, swelling, drainage, tenderness, and/or warmth. Call your child’s nurse or doctor if any of these signs are present. Also report dry skin, rash, or irritation from the dressing.

7. Remove gloves and wash hands again.

8. Put on sterile exam gloves.

9. Clean the area with alcohol swabsticks (pre-wash), only if needed for extra cleaning around stitches, etc, starting at the exit site. At first you will not be able to pick up the catheter because of the stitches. Once the stitches are removed, it will be easier to clean around the catheter.

10. Pinch the wings on the ChloraPrep® to release the liquid into the sponge pad. Do not touch the pad. Gently press the sponge against the skin near the exit site until you can see the liquid on the skin. Use a back-and-forth friction rub for 60 seconds to all skin areas being covered by the dressing. Let air dry. Do not blot, wave at, or blow-dry the area.
Dressing Changes

☐ Gauze Dressing

If a gauze dressing is used, this needs to be changed daily, and when it is loose, wet, soiled, or if any drainage is present.

- Open the sterile gauze package.
- Pick up the gauze. Be careful to touch only the very edges or the outside part that will not come in contact with the Groshong® exit site.
- Place the gauze over the exit site.
- Tape the edges of the gauze.

☐ Transparent Adhesive Dressing with Gauze

If gauze is used with a transparent dressing, the dressing needs to be changed every 3 days or more often if it is loose, wet, soiled, or if any drainage is present.

Follow the steps above for gauze dressing. Instead of tape, place the transparent dressing over the gauze.

☐ Transparent Adhesive Dressing without Gauze

Change at least every three days or sooner if it is loose, wet, soiled, or if any drainage is present. Peel the backing from the transparent dressing and apply to site. Be careful not to touch the adhesive side to anything but the exit site. Place the dressing over the catheter tube first, and then gently smooth out the rest of the dressing.

Once Your Child’s Catheter Has Healed

In about four weeks, the exit site should be well healed. The stitches will be removed. Your child’s doctor or nurse may change the cleaning routine. Instead of the Chloraprep®, the site can be cleaned with a washcloth and antimicrobial soap. Soap with a chlorhexidine base is preferred. At this point your child may not have to wear a dressing. If your child does not use a dressing, the site must be cleaned daily. If your child will continue to use a dressing, follow the cleaning/dressing routine as outlined above.

Always cover the catheter hub (see page 3) before cleaning to protect it from any water contamination.

Please follow these steps to clean the catheter site:

1. Use a liquid antimicrobial soap and a clean washcloth. Do not use a bar of soap.
2. Place the washcloth at the exit site and clean in ever larger circles moving away from the site until you are 2 inches from it. Use a clean, fresh washcloth each day.

3. Gently pat the exit site dry with a clean towel so that you don’t pull at the catheter.

4. Apply a dressing – either a transparent or gauze dressing or adhesive dressing (Band-Aid®). Some people prefer no dressing at all.

5. **Loop and secure the catheter at all times to prevent pulling, even if no dressing is used.**

**Sensitive Skin Care**

Follow these steps if skin becomes red, irritated, or has open sores.

**Supplies:**

- 1 Bottle of water-based chlorhexidine solution (Stearis 32oz CS# 1254444 or Hibiclens single use packets CS#1215001)
- 4 x 4 sterile gauze
- 1 roll of paper tape or Hytape (pink) tape
- 2 x 2 sterile gauze
- 1 small transparent adhesive dressing (optional)
- Clean and sterile gloves (if sutures are still in place)
- No-sting skin prep
- Adhesive tape remover

**Steps:**

1. Follow steps 1 – 5 above on skin care for the first 2 – 4 weeks.

2. Open 4 x 4 gauze packages. Pour chlorhexidine onto one of the sterile 4 x 4 gauze squares.

3. Put on exam gloves.

4. Gently scrub the exit site with the soaked gauze squares for 30 seconds.

5. Gently blot dry with dry sterile gauze.

6. Let air dry completely. Do not wave at or blow-dry the area.

Your child’s nurse will help you decide which dressing is best for your child.
**Gauze**

If the skin is very irritated with open sores, it should be covered with gauze, not left open to the air. When placing the gauze, make sure to either use a no-tape method (which your nurse can show you) or make sure the tape is not over the sore. Try to place gauze and tape in a different area each time the dressing is changed; use the least amount of tape that you can. This will give the skin a chance to heal.

**Transparent Adhesive Dressing**

If using a transparent dressing on sensitive skin, place it over gauze as outlined above. Each time the dressing is changed, rotate where the transparent dressing is placed on the skin. Sorbaview window dressings are also available for sensitive skin (Small Sorbaview CS# 2203484).

**Personalized Dressing Plan (if different from above)**

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Flush the Catheter

Use pre-filled saline syringes from the pharmacy. If you need to draw up your flushes, your child’s nurse will teach you how to do this.

You will need to flush your child’s catheter once a week, or after each use.

Supplies:
- A syringe with 10 mL normal saline
- Alcohol swabs
- Needleless connector every 3-7 days
- Clean gloves

Steps:

1. Wash hands for 30 seconds.

2. Put on clean gloves.

3. Clean the top of the needleless connector with an alcohol swab for 15 seconds using a ‘juicing’ method. Allow to air dry for 10 seconds before accessing. (Note: do not allow the end of the needleless connector to touch anything after you’ve cleaned it with alcohol and before accessing with a syringe or IV line.)

4. Remove the plastic cover from the syringe. Insert the syringe filled with normal saline into the valve. If the tip of the syringe touches anything other than the cleansed catheter, stop, and replace the syringe.

5. Push gently and steadily on the plunger until the syringe is empty. The Groshong® catheter should flush easily. If you feel resistance, check to see if the tubing is kinked. If there is resistance, do not force.

6. Remove the syringe and dispose of it. (If you have a Groshong® catheter with multiple ports, repeat steps to flush each port).
Changing the needleless connector

1. The needleless connector needs to be changed once or twice a week.

2. Wash hands for 30 seconds.

3. Put on clean gloves.

4. Always make sure the clamp is closed before removing the needleless connector.

5. Remove the old needleless connector from the catheter.

6. Remove the blue protective cap and screw the new needleless connector onto the end of the catheter.

![Needleless Connector Diagram](image-url)
Getting More Supplies

You will be provided with three days worth of supplies to care for the catheter. The health care team will ensure that further supplies will be arranged through the appropriate supplier.

Groshong® Catheter Supply Checklist

Use this checklist to take inventory of your home supplies. Your child’s nurse will help you figure out what you need and order refills.

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>3 DAY SUPPLY</th>
<th># ON HAND</th>
<th># NEEDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needleless (MicroClave® Clear) connector</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prefilled Saline (10u/ml) syringes</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2x2 Alcohol swabs</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ChloraPrep®</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 x 2 Gauze Sponges</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adhesive bandages (Band-Aids®)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antimicrobial (Chlorhexidine-base) Soap 32 oz</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tape 1&quot;</td>
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<td></td>
</tr>
<tr>
<td>Transparent Adhesive Dressing</td>
<td>3</td>
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</tr>
<tr>
<td>Clean gloves</td>
<td>1 box</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sterile Gloves</td>
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<td></td>
</tr>
<tr>
<td>Biopatch®</td>
<td>0-2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Problem Solving

Call your child’s doctor immediately with any of the problems listed below.

- Persistent blood in catheter tubing.
- Swelling of face, neck, chest, or arm.
- Drainage, redness, swelling, severe pain, or bleeding at the exit site.
- Fever and/or chills.
- Shaking chills right after the catheter is flushed.
- Difficulty flushing the catheter. When you try to push on the plunger, you meet resistance.
- Damage to the catheter such as a leak, hole, cut, or crack in the tubing. See Helpful Points on page 4 for details.
- The Groshong® catheter is accidentally pulled out. Apply pressure with gauze to the exit and entrance sites and shown in picture on page 2.

Who to call for questions or problems

8:00 a.m. -4:30 p.m. on weekdays call ____________________@_______________________

After 4:30 p.m. or weekends/holidays call resident/attending on call

__________________________@ ________________________________________________