Peripheral IV: Care at home

What is a peripheral IV?

A peripheral IV is a catheter (a very thin, flexible tube) that is inserted into a small vein in the arm, hand, leg, or foot. This is done to give fluids or medicines directly into the bloodstream. The IV is secured with tape or a type of bandage.

How should I care for the IV?

There are several things you need to do when giving IV medicines at home to prevent problems.

Preventing infection

It is very important to prevent infection, which might require removal of the IV catheter. The nurse will show you how to keep your supplies sterile, so no germs will enter the catheter and cause an infection.

Cleanliness is a must! Each time you give a medicine or flush the IV, follow these steps:

1. Prepare a clean work area by cleaning a solid surface with household cleanser (such as Lysol® or another brand) and lay a clean towel on it.

2. Clean your hands well, using one of the following methods:
   - Use an alcohol hand sanitizer (Purell® or another brand) according to directions.
   - If hands are dirty or sanitizer is not available, wash your hands with antibacterial soap for at least 15 seconds, rubbing all surfaces briskly, including under fingernails. Use a paper towel or clean hand towel to dry your hands, and then use the towel to turn off the faucet.

3. Before each time you flush or put any medicine into the IV tubing, scrub the injection cap for 30 seconds with a fresh chlorhexidine wipe, using friction. Let it dry. Do not fan or blow on it.

Checking the IV site

Before giving any medicine, always check the IV site to make sure there are no problems. Check for:
- redness
- swelling
- leaking
- pain
- tenderness

If any of the above are present, do not give the medicine. Never force medicines into the IV. If your child cries or says it hurts when the medicine is pushed in, call the home care nurse for help in problem solving. (See chart on last page).

Home Care nurses will visit twice a week, or more often if needed, to check the IV site and see how things are going.

Sometimes an IV may need to be restarted. Your child’s doctor and home care nurse will talk with you about a plan for this if needed.
Giving the medicine and flushing the IV

Depending on your child’s needs, you will follow one of these procedures:

☐ Flush with normal saline, give medicine, flush again with normal saline, then flush with heparin.

☐ Give medicine, then flush with heparin.

☐ Flush with heparin every 8 hours (no medicine needed).

Note: Every time you flush the IV with normal saline or heparin, use the “push-and-pause” method: push a little solution, then pause for 1 to 2 seconds, then push a little more, pause, and so on. This method cleans the inside of the catheter. Your home care nurse will show you how to do it.

Adjust the following steps to fit your procedure checked above.

1. Prepare the work surface (see page 1).

2. Clean your hands well (see page 1).

3. Gather supplies:
   • chlorhexidine wipes
   • normal saline syringe
   • medicine, and supplies to give it
   • heparin syringe

4. Check the labels of the normal saline and heparin syringes and any other medicines or fluids before giving them. Make sure they are the right medicines and the heparin is in the right strength.

   • A medicine is good until the expiration date. Throw it away sooner if you see sediment in it or if you question its cleanliness.

   • If you don’t have pre-filled syringes, draw up the correct amounts into separate syringes. (See the education sheet “IV medicines: Preparing at home”.)

5. Scrub the injection cap with a chlorhexidine wipe and let it dry.

6. If you have not been instructed to use normal saline, go to step 11.

7. To flush with normal saline: remove the tip cover from the normal saline syringe.

8. Twist the syringe tip into the injection cap.

9. Unclamp the catheter and slowly inject the normal saline into the catheter using the push-and-pause method.

10. When the syringe is empty, remove it from the injection cap.

11. Scrub the injection cap with a chlorhexidine wipe and let it dry.
12. Connect and give the medicine as instructed by your home care nurse.

13. After the medicine is given, disconnect it from the IV catheter.

14. Scrub the injection cap with a chlorhexidine wipe and let it dry.

15. Flush with normal saline syringe, using the push-and-pause method. Remove the syringe.

16. Scrub the injection cap with a chlorhexidine wipe and let it dry.

17. Flush with heparin syringe, using the push-and-pause method. Remove the syringe.

18. Clamp the IV catheter.

19. Put used tubing, solution containers and syringes into your regular trash, unless blood is in them. If they are soiled with blood, use a sharps container.

**Who should I call for help?**

**Call the home care nurse if:**
- fever, chills
- diarrhea or vomiting
- rash or itching
- problems with the IV, such as redness, tenderness, or swelling
- questions about treatments, medicines, or supplies

**Call 911 if:**
- trouble breathing

**Questions?**

If you have any questions, please call your home care nurse.

For more reading material about this and other health topics, please call or visit the Family Resource Center library, or visit our Web site: [www.childrensmn.org](http://www.childrensmn.org).
## Problem solving

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible cause</th>
<th>What to do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infusion will not start or infuses slowly</td>
<td>- Clamp closed</td>
<td>- Open all clamps.</td>
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<tr>
<td></td>
<td>- Kink or bend in tubing</td>
<td>- Check all tubing.</td>
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<tr>
<td></td>
<td>- Tape too tight over site</td>
<td>- Change hand or arm position.</td>
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<tr>
<td></td>
<td>- IV plugged or out of the vein</td>
<td>- Loosen any tape over IV site.</td>
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<td></td>
<td></td>
<td>- Flush IV gently with normal saline or heparin solution.</td>
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<tr>
<td></td>
<td></td>
<td>- If IV is painful, hard to flush, or continues to infuse slowly, clamp the IV and call the home care nurse.</td>
</tr>
<tr>
<td>IV site is sore, painful, reddened, swollen,</td>
<td>- IV out of vein</td>
<td>- Do not give medicine or begin infusion.</td>
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<tr>
<td>or draining</td>
<td>- Irritation of the vein</td>
<td>- Call home care nurse.</td>
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<tr>
<td></td>
<td>- Infection at site</td>
<td></td>
</tr>
<tr>
<td>Leaking fluid at injection site or at tubing</td>
<td>- Loose connections</td>
<td>- Tighten all connections.</td>
</tr>
<tr>
<td>connections</td>
<td>- Iv out of vein</td>
<td>- Change injection cap.</td>
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<td></td>
<td></td>
<td>- If leaking continues, stop the infusion and call the home care nurse.</td>
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<tr>
<td>Infusion painful to child</td>
<td>- IV out of vein</td>
<td>- Check IV site for redness or swelling (as above).</td>
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<tr>
<td></td>
<td>- Irritation of the vein</td>
<td>- Flush IV gently with normal saline or heparin solution.</td>
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<td>- If IV flushes easily, restart infusion and observe child.</td>
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<td>- If IV is hard to flush or child is uncomfortable, call the home care nurse.</td>
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<td></td>
<td>- Medicine too concentrated for child</td>
<td>- Call the home care nurse to discuss; it may be possible to dilute the medicine.</td>
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<tr>
<td>Fluid bag leaks</td>
<td>- Defective bag</td>
<td>- Discard leaking bag and replace with a new one.</td>
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<td>- Hole in bag from spike of IV tubing</td>
<td>- Call home care nurse or pharmacy to let them know that the bag was discarded.</td>
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<tr>
<td>Dressing (bandage) becomes loose or soiled</td>
<td>- Leaking IV fluid</td>
<td>- Change dressing if you have been taught how.</td>
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<tr>
<td></td>
<td>- Bathing</td>
<td>- Put tape over existing dressing or reinforce edges with tape to secure IV until it can be re-taped.</td>
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<tr>
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<td>- Accidental pull</td>
<td>- Use stockinette and/or armboard as directed.</td>
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<td>- Call home care nurse for more suggestions.</td>
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