

Self-Needling Your Fistula Using the Buttonhole Method

Important Points:

- Think about a buttonhole track like an earring hole.
- Your nurse will choose your buttonhole sites carefully.
 - The straightest part of your fistula will be used.
 - The arterial needle needs to be put at least 2 inches above the fistula incision (anastomosis).
 - Needle tips need to be at least 1 inch apart.
- Use the same hole, the same angle and the same direction each time you needle your fistula.
- Always use a tourniquet.
- Clean, clean, clean – make sure you clean your sites before and after removing the scabs.
- Use sharp needles to form the track. It usually takes 8 to 18 times to form a track.
- Once the track is formed, needle the track using blunt buttonhole (dull) needles. Never use sharp needles.
- Report redness, pain, swelling or fever to your nurse.

Needling a Buttonhole Track



Supplies:

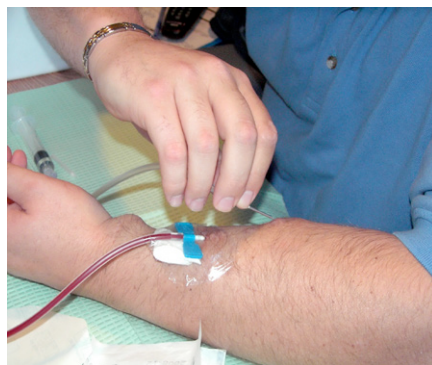
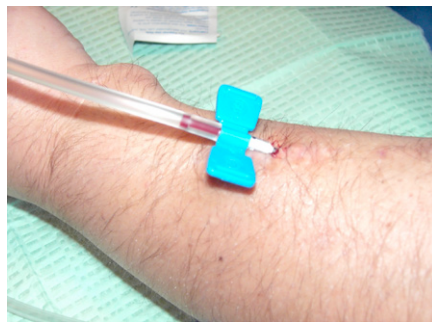
- Clean drape or towel
- Disinfectant wipes
- Gauze, 4x4 inch and 2x2 inch
- One 21-gauge needle
- Tape (1 in and ½ in)
- 2 blunt buttonhole fistula needles
- Tourniquet
- 2 red blunt fill needles
- Gloves (have your helper use them)

If taught to prime needles:

- 3 (10 mL) syringes
- Normal saline or heparin

1. Check your access for signs of infection (redness, swelling, tenderness or drainage).
2. Check your access is working by feeling the thrill (pulsation or vibration) and listening for a “whoosing” sound using a stethoscope.
3. Wash your hands and fistula arm with warm water and anti-bacterial soap for a full minute.
4. Prepare your needling surface and assemble your supplies on your drape or towel.
5. If taught to do so by your kidney nurse, prepare syringes and prime your dialysis needles.

6. Cleanse each needle site with a disinfectant wipe-using up and down and side to side motions (waffle motion). Allow to air dry.
7. Wipe each scab with a disinfectant wipe (one per scab).
8. Gently lift each scab off with a disinfectant wipe or a red blunt fill needle if scab doesn't come off easily one wipe or needle per scab).
9. Cleanse each needle site again with a disinfectant-soaked gauze/swab (one per site).
10. Apply tourniquet 4 inches higher than your venous (top) needle site.
11. If helper available, ask to put on clean gloves.
12. Insert arterial needle:
 - a) Remove cap and hold needle by the plastic wings with the opening (bevel) facing up.
 - b) Pull back on the skin with light pressure below where you will be placing the needle.
 - c) Insert needle using a 25 degree angle. Flatten angle once you see blood pulsing (flashback). Slowly advance needle almost to the end in the same direction as the fistula. If you have trouble advancing the needle, STOP and call for help.
 - d) Check the flow of blood by pulling up and down on the syringe. Syringe should be in a vertical position.
 - e) Place folded gauze under the needle if required.
 - f) Tape needle securely.
 - g) Clamp needle. Remove the old syringe with blood. Loosen tourniquet.
 - h) Attach a 10 cc pre-filled syringe and instill saline.
 - i) Clamp needle.
 - j) Tighten tourniquet.



13. Repeat step 12, a to i, to insert the venous needle.
 14. Remove tourniquet.
 15. Give yourself the initial heparin dose by replacing the empty syringe with the heparin-filled syringe. Check your flows as you draw up the blood into the syringe and mix it with heparin. Return blood and heparin and close clamp.
 16. Recheck flow in needles using syringe.
 17. Clamp needles and connect to bloodlines (machine).
 18. Open needle clamps and start dialysis.
4. Clamp both needles. Place a drape or pad under arm.
 5. If helper available, ask helper to put on clean gloves.
 6. Carefully remove tape or hold needle while helper or staff removes tape. Place gauze over the needle site without applying pressure.
 7. Remove needles one at a time by holding the needle tubing with your fistula hand and placing gauze over the puncture site with your other hand. Pull needle out slowly at the same angle as the track.
 8. After the needle is out, hold your needle sites using gentle pressure for 10 minutes. Press at the needle site and just above. If the needle site is still bleeding after 10 minutes, reapply pressure for another 5 minutes.

Removing Needles



Supplies:

- Clean drape or towel
- Gauze, 2-4 (2x2 inch and 4x4 inch)
- Sharps bin
- Antimicrobial gauze OR 2 sterile swab tip applicators and mupirocin ointment
- Tape (1 in and ½ in)
- Gloves (have your helper use them)

1. Check your blood pressure.
2. Wash your hands with anti-bacterial soap or hand sanitizer.
3. Prepare supplies, open gauze, prepare tape and/or band aids.
9. When the bleeding stops:
 - a) Apply antimicrobial gauze and tape in place; OR
 - b) Use a sterile swab tip applicator and apply Mupirocin cream about the size of a pea to each site (one applicator per site). Make sure the tube of the cream does not contact the skin. Cover the sites with a sterile gauze and tape in place.
10. Instruct the patient to remove the gauze after 4 - 6 hours. If Mupirocin cream was applied, wipe away excess cream.