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## Buttonhole Needling for a Fistula

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### What is buttonhole needling?

This means the needles used for dialysis are put into the same spot, at the same angle, at the same depth every time. This forms a track or tunnel through the skin to the blood vessel. This track is made by scar tissue forming on the inside of the track – just like a hole made for a pierced ear.

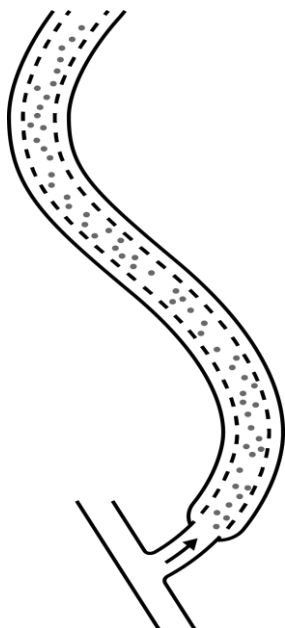
When a hemodialysis treatment is finished and the needle is removed, a small blood clot forms in the hole and seals the track until the next time it is used.

### What are the benefits?

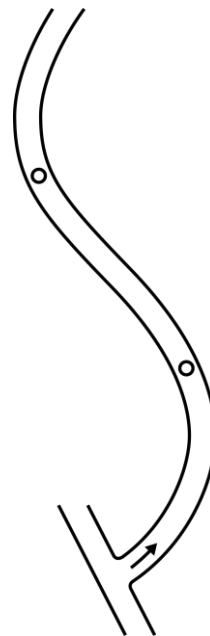
Scar tissue forms around the opening making a strong spot to put the needles in. When the scar tissue in the tunnel heals, there is a clear path for the needle to follow.

Research has found:

- Less problems with swelling from a needle going through the fistula wall
- Easier to put the needle in the correct place each time
- Less pain when needles go in



**Fistula with many punctures**



**Fistula with buttonhole**

## **How is a buttonhole made?**

For the first treatment, a sharp needle is put into the fistula to make the tunnel. After the treatment, when the needle is removed a clot will form in the tunnel stopping the bleeding. The site is covered with a bandage.

At your next treatment, the scab on your arm is cleaned. The scab is then carefully removed with a needle tip and cleaned again. A hemodialysis needle is put into the same spot to keep the tunnel open. When your dialysis treatment is done, a bandage is put over the site. This needs to be done 6 to 8 times and then the tunnel is ready.

## **Why is a different kind of needle used when I have a buttonhole?**

After 6 to 8 treatments, the buttonhole is healed. Blunt needles are then put into the tunnel for all of your dialysis treatments. Sharp needles increase the risk of cutting or scraping the side of the tunnel. This can cause bleeding and then the tunnel has to heal again. Using a blunt needle helps the buttonhole last longer.

## **Can I have a buttonhole made?**

A vascular surgeon, vascular access coordinator, or nephrologist will assess your access to see if this is a procedure and technique for you.