

# Information for patients and carers

## Buttonhole Cannulation Technique



## **What is the buttonhole cannulation technique?**

Buttonhole needling is a way of cannulating (putting needles in) your fistula. The needles are inserted in exactly the same spot at every dialysis session, like a button into a buttonhole.

## **Can everyone have the buttonholes?**

This technique is only suitable in fistulae and not in grafts. It can be difficult to form buttonholes in some people. If this is the case, you will need to go back to sharp cannulation.

People with particular skin conditions or other risk factors, which put them at increased risk of infection, (such as a replacement heart valve), may be advised that it would be unsafe to have button-hole tracks formed due to the extra risk involved. Your nurse can discuss this with you and your consultant.

Your consultant will have a full picture of your medical history and be aware of any risk factors that may affect the advisability of using buttonholes in your particular circumstances. If you wish to discuss this further with your consultant this can be arranged.

## **Is it harmful for my fistula to have the needle inserted in the same place all the time?**

It is harmful to go in the same area using different holes, as this weakens the vein wall, causing aneurysm (bulging).

With the buttonhole, the exact same hole is used for every dialysis session and over time a tract or tunnel forms. This prevents aneurysms forming and offers other benefits such as reduced pain when needles go in and reduced bleeding times when the needles are removed.

## What are the advantages of using the buttonhole technique?

Research has shown that these are:

- Fewer 'blows' – when blood leaks from the vein into the surrounding skin, causing swelling and pain
- Fewer problems locating the vein
- Less pain when inserting the needles
- Less chance of aneurysms (bulging) forming. Aneurysms can weaken the vein wall

## What are blunt/dull needles?

Blunt or dull needles are rounded at the top and do not have sharp edges like traditional dialysis needles. The buttonhole technique develops a tract, so you do not need to use sharp needles to enter the vein. Blunt needles also prevent damaging the formed tract.

## What is a tract?

The tract is a tunnel created by the formation of scar tissue – exactly like the hole created for earrings in a pierced ear. This tract goes from the surface of the skin to the vein. Once the tract is well healed there are no nerves or tissues in the path of the needle to cause you any pain when the needles go in.

## How long does it take before I can use blunt needles?

For most people, it takes about two to four weeks or six to fourteen dialysis sessions before a tract develops. A normal sharp needle is used for those sessions and when the nurses are happy that the tract has formed, they will introduce blunt needles.

## How long will the buttonhole last?

The pair of buttonholes can be used indefinitely if there are no problems.

## What happens if I dialyse at a unit that does not use this technique?

If the unit you are dialysing at does not use this technique, they can needle another part of your fistula using the normal sharp needles. We will inform the staff on the other unit at the earliest opportunity that we use the buttonhole technique with you, and we will advise them about needling your fistula. We will resume the buttonhole technique when you come back to us.

## When will I start using the buttonhole technique?

Your unit will assess the suitability of using the buttonhole technique and advise you.

## Is there anything special I need to do with my fistula when using the buttonhole technique?

To reduce the risk of infection, the fistula arm needs to be washed before the scab is cleaned. If it is possible, the patient should wash their fistula arm with soap and water on arrival to the dialysis unit. The scab will then be removed from the buttonhole and the area cleaned again before the needling takes place.

Care of your fistula remains the same.

## Contact details

Should you require further advice or information please contact:

Renal Vascular Access Team on **01772 523528** or **01772 523219**

Working hours Monday- Friday 8am-4pm

## Sources of further information

[www.lancsteachinghospitals.nhs.uk](http://www.lancsteachinghospitals.nhs.uk)

[www.nhs.uk](http://www.nhs.uk)

[www.accessable.co.uk](http://www.accessable.co.uk)

[www.patient.co.uk](http://www.patient.co.uk)

[www.lancsteachinghospitals.nhs.uk/veteran-aware](http://www.lancsteachinghospitals.nhs.uk/veteran-aware)

<https://bepartofresearch.nihr.ac.uk/>

<https://kidneycareuk.org/>

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[patientexperienceandinvolve@LTHTR.nhs.uk](mailto:patientexperienceandinvolve@LTHTR.nhs.uk)

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