

# Midline Catheter Insertion

Department .....  
Lincoln County Hospital  
Contact Number .....  
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## References

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## Introduction

This information booklet is designed for patients who are about to undergo a Midline procedure. It provides detailed information about the procedure, what to expect and aftercare advice. Additional information can be obtained from your practitioner.

### Important

Please bring your Midline Patient Information Leaflet & Diary with you each time you attend the hospital.

Details of the ward or referring team responsible for the care and maintenance of your Midline catheter.

Please provide details below:

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## Notes

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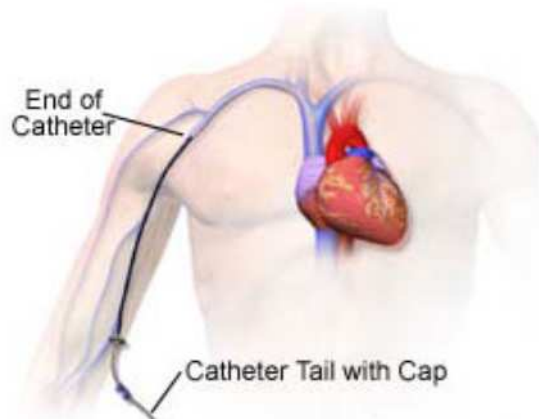
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## General information

### What is a Midline?

A Midline is a long thin flexible tube that is inserted into a large vein in the upper arm. The catheter is slid into the vein until the tip is in the upper arm just before the arm pit.



This is an example of what the Midline would look like on a real arm:



## DRESSING CHANGES DIARY

### Week 4

An appointment has been made for you to attend the \_\_\_\_\_ clinic on the \_\_\_\_\_ to have your Midline dressings changed.

*{Please tick}*

	Date	Performed By	Signature
<b>Dressing Change</b>			
<b>Needless Cap</b>			
<b>Stat Lock</b>			
<b>Hepsal Flush</b>			

**Comments:**

## DRESSING CHANGES DIARY

### Week 3

An appointment has been made for you to attend the \_\_\_\_\_ clinic on the \_\_\_\_\_ to have your Midline dressings changed.

*{Please tick}*

	Date	Performed By	Signature
<b>Dressing Change</b>			
<b>Needless Cap</b>			
<b>Stat Lock</b>			
<b>Hepsal Flush</b>			

**Comments:**

### What are they used for?

Midlines are commonly inserted when patients require intravenous treatments that are going to last more than a few days or where it has proved difficult to obtain access to the superficial veins in the forearms or hands. Midlines can last several weeks if there are no complications requiring early removal.

### Is there anything I should do before I come to the department?

Before your appointment you can continue to eat and drink as you would normally. You should also take all of your regular medications unless you have been specifically instructed to do otherwise. Normal fluid intake is important; dehydration can make it more difficult to access the veins in your arm. When you attend for the procedure you should wear clothes which are loose fitting, particularly around the arms.

### What will happen when I arrive in the department?

A practitioner will then come to speak to you about the procedure and answer any questions. When you are satisfied that you understand the procedure and if happy to proceed you will be asked to sign a consent form. Please inform the practitioner if any of the following apply to you:

- You are pregnant
- You have any allergies
- You have kidney failure
- You are known to have a blockage of the veins of your chest or arm, or have had surgery to the breast/cancer of the breast
- You are taking any drugs which thin your blood
- You have a pacemaker

### Which arm is used to put the Midline in?

The Midline is generally put into the left arm as most people write with their right hand. If you are left handed the right side is usually more convenient. However, this is not always possible as you may not have a suitable vein in the preferred arm or your medical history may favour placement on a particular side.

### Will it hurt?

The tourniquet strap around the arm is tight but not painful. It is released as soon as the vein is entered. Local anaesthetic is used to numb the area where the Midline will be inserted. This causes some stinging on injection but then goes numb. There may be some pressure in the arm as the tube through which the Midline passes is inserted. If any discomfort is encountered further local anaesthetic will be injected.

### How long does the procedure take?

The procedure takes around 30 minutes.

### How are they put in?

You will be taken into the room and asked to lie on your back on the table. A tourniquet (strap) will be placed around each arm in turn and both will be examined with ultrasound. Once the most suitable vein is selected, the area will be cleaned and covered with drapes to make the area sterile. Local anaesthetic is injected into the area around the vein which may sting. A small needle is inserted into the vein and a soft flexible wire passed along the vessel to the shoulder. You will usually not feel the wire passing through the vein. A thin hollow tube is now placed over the wire to facilitate placement of the line. The Midline is now measured to the appropriate length and inserted into the tube in your arm, again passing into the upper arm near the shoulder. The tube is now removed and the Midline secured to the skin with an adherent dressing.

## DRESSING CHANGES DIARY

### Week 2

An appointment has been made for you to attend the \_\_\_\_\_ clinic on the \_\_\_\_\_ to have your Midline dressings changed.

*{Please tick}*

	Date	Performed By	Signature
Dressing Change			
Needless Cap			
Stat Lock			
Hepsal Flush			

**Comments:**

## DRESSING CHANGES DIARY

### Week 1

An appointment has been made for you to attend the \_\_\_\_\_ clinic on the \_\_\_\_\_ to have your Midline dressings changed.

*{Please tick}*

	Date	Performed By	Signature
<b>Dressing Change</b>			
<b>Needless Cap</b>			
<b>Stat Lock</b>			
<b>Hepsal Flush</b>			

**Comments:**

## What complications are associated with Midlines?

As with any procedure, there are risks involved. The most common difficulties and complications are highlighted below and the rest will be discussed on the day during the consent process.

- Occasionally it is not possible to place a Midline in one of your arms due to either a lack of suitable arm veins or a blockage of the vessel. In this situation either a catheter will be placed in an alternative location or arrangements will be made for a different venous access device, possibly at another appointment.
- Sometimes a little blood can ooze around the insertion site of the Midline at the end of the procedure. This is unlikely to be of significance and most often resolves quickly. In the event that there is bleeding that you are worried about you should elevate the arm whilst applying pressure with a clean tissue/gauze over the insertion point through the dressing (never remove your Midline dressing). It would then be advisable to contact your clinical team to arrange for review and dressing change.
- Displacement/Midline pulled out - If the line is pulled on sharply or the fixing dressing starts to come off then all or some of the Midline may be pulled out of the body. If the displacement is minimal it may be possible to continue treatment with the existing line, otherwise the catheter will have to be replaced for a new one. If the Midline is fully pulled out you should elevate the arm and apply pressure with clean tissue/gauze. When any bleeding has stopped a clean plaster can be placed over the hole, you should then contact your medical team. In cases where the dressing becomes loose, or where you are worried that the Midline has slipped out a little you should secure the area with a bandage and again contact your clinical team.

- Infection – Every effort is made to reduce the risk of infection through sterile line insertion and subsequent clean use and maintenance of the Midline. However, infections can occur. Possible symptoms include pain and tenderness, spreading redness/heat at the insertion site or discharge of fluid/pus at the insertion site. Infection may also cause fever and/or make you feel generally unwell. Again contact your clinical team if you are worried.
- Blood clots – The body can react to the presence of the Midline in the blood vessel by forming a clot. If the vein becomes blocked you may notice swelling of the arm and face on the same side your Midline is in. Swelling of the arm which can be indented with a finger to form a visible depression is particularly suspicious for a clot. In this instance you should contact your clinical team. Very rarely a clot can separate from the catheter and pass into the lung. Sudden onset of breathlessness could mean a clot has passed to your lung, in this case you should ring 999 (this is, however, very rare).

### What will happen after the Midline has been inserted?

The Midline is secured to your arm with an adherent dressing which will allow you to inspect the insertion site. Finally a bandage or stockinet may be placed over the catheter.

### Can I exercise with the Midline in place?

Avoid strenuous exercise or heavy lifting for the remainder of the day after insertion or until any oozing of blood around the catheter has resolved. After that you may exercise or carry out most activities as normal. However, **swimming is not permitted** as it leads to a higher risk of infection because it is almost impossible to prevent the line and dressing from becoming wet. Take care the Midline is secured before exercise or it may become displaced. Sweating may lead to loosening of the

## GLOSSARY OF TERMS

<b>PHLEBITIS</b>	Inflammation of the walls in a vein
<b>THROMBOSIS</b>	Clotting of blood within a vein
<b>SALINE</b>	A salt and water solution
<b>SALINE FLUSH</b>	Sterile saline used to clear the catheter after routine use
<b>HEPSAL</b>	A flushing solution used to flush catheters to help prevent the formation of blood clots inside the Midline
<b>EXIT SITE</b>	Where the Midline comes out of arm
<b>ENTRY SITE</b>	Where the Midline goes into the arm
<b>NEEDLESS INJECTION CAP</b>	This is the cap that prevents blood from backing up into the catheter. It also allows the delivery of medication into your bloodstream
<b>CATHETER</b>	A soft tube inserted into the body (in this case a Midline inserted into a vein in the arm)



## CATHETER INFORMATION

The following form should be filled in as soon as possible with your nurse or practitioner. This information will be useful for your care giver to help with the maintenance of your line.

<b>PATIENT NAME</b>		
<b>DATE OF PLACEMENT</b>		
<b>INSERTED BY</b>		
<b>CATHETER MAKE/TYPE</b>		
<b>SINGLE LUMEN</b>	<b>DOUBLE LUMEN</b>	<b>TRIPLE LUMEN</b>
<b>CATHETER USE:</b>		
ANTIBIOTICS		
BLOOD SAMPLING	POWER INJECTABLE	
VENOUS ACCESS		
OTHER		
<b>EMERGENCY NUMBERS: (To be provided by referring team or ward)</b>		

dressing or moisture formation around the catheter. If this occurs the dressing will need to be changed.



### Can I shower/bathe with a Midline?

Yes you may shower and bathe with a Midline but it is important to keep it dry. You must not immerse the line in water. There are Midline covers available that you can buy online or at a pharmacy.

### Can I drive after the procedure and with a Midline in?

Yes you can drive with a Midline in and straight after the procedure as well.

### Can I sleep on the same side that my Midline is in?

Yes you may sleep on the same side that your catheter is placed in. However it is important that you make sure that the Midline is covered well with the dressing as this will prevent the line from becoming dislodged whilst you are sleeping.

### Maintaining your Midline

**All ongoing care and reviews are the responsibility of the referring team.**

Dressing changes and flushing of your catheter are an essential part of maintaining catheter patency and to prevent infections. The nursing staff in the areas that you will be having your treatment will take care of this.

## Dressing Changes

- Your dressing will be changed **every 7 days**, however, if the dressing begins to lift from the skin earlier than this you should contact the department responsible for performing your dressing changes.

The dressing changes are normally carried out in the hospital at a clinic or on the ward where the nursing staff will change them. For outpatients, this can be done through making an appointment or by dropping in to the appropriate clinic depending on what treatment you are having.

- The needless injection cap (the bung at the end of your catheter) and if used the fixator device (stat lock) will be changed **every 7 days**. If the cap becomes damaged or loose then it needs to be changed immediately.

## Flushing the Midline

Your Midline will be flushed by your caregiver **every 7 days** during dressing changes, in addition to normal flushing with saline after routine drug injections or blood sampling. This is important as it helps to prevent blood clot formation in the line and reduces the chances of your line becoming blocked.

## What do I do if my arm hurts after the procedure?

It is normal to have a bit of discomfort and tenderness around the area where your Midline is placed initially after the procedure. It will take a few days for your body to adjust to the line being in place. Things that you can do to help ease the discomfort are:

- Applying either a cool/warm pack to the Midline area for 30 minutes regularly during the first 24 hours can help ease discomfort.

- Taking ibuprofen or paracetamol (if you are able to) also helps to ease the pain and can help to reduce inflammation.

If after a couple of days your Midline is still causing you lots of pain, it is best to contact the hospital and the department where you are having your treatment for advice.

**NOTE:** *Try to avoid wearing tight clothing on the arm that your Midline is in and if you are having your blood pressure taken make sure it is done on the opposite side that your Midline is in as this could cause discomfort in your arm.*