

IMPORTANT PATIENT INFORMATION



This patient has a  
vascular access catheter placed

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vascular access catheter placed

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Teleflex is a global provider of medical products designed to enable healthcare providers to protect against infections and improve patient and provider safety. The company specializes in products and services for vascular access, respiratory, general and regional anesthesia, cardiac care, urology and surgery. Teleflex also provides specialty products for device manufacturers.

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## UNDERSTANDING YOUR CHOICE FOR VASCULAR ACCESS

A Patient Guide to  
Vascular Access, Based  
on Vessel Health and  
Preservation<sup>®</sup> Model

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Vessel Health and Preservation® is a plan designed to keep you and your veins healthy when you have a vascular access device or line.

This plan is designed to help the healthcare team and YOU keep problems from happening with your catheter. You'll receive answers to many common questions by reading this book. You will also learn about:

- The Right Line, Right Patient, Right Time™
- When the vascular access device is inserted
- While you have the vascular access device

*See back of brochure*

You will find two special cards at the back of this brochure. Have the medical staff fill out the proper information on the card, then keep the card in your wallet or purse in case of emergency.



The content in this guide is provided to assist healthcare professionals in educating patients about their medical conditions. It is not intended to be used for diagnoses, nor as a substitute for medical advice from, or treatment by, a physician, nurse or other qualified healthcare professional.

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For additional reference information contact Teleflex Incorporated.

This patient has a Vascular Access Catheter in place

Name \_\_\_\_\_  
Vascular Access unit phone # \_\_\_\_\_  
Primary care physician (PCP) \_\_\_\_\_  
PCP phone # \_\_\_\_\_  
Emergency contact \_\_\_\_\_  
Emergency contact phone # \_\_\_\_\_  
Date of catheter insertion \_\_\_\_\_  
Lot # \_\_\_\_\_  
Product # \_\_\_\_\_

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# PART 1 – VASCULAR ACCESS

## What is vascular access?

Your healthcare team is made up of:

- ▶ **YOU**
- ▶ your doctors, nurses, and other people caring for you.

A member of your healthcare team may tell you that you need to have a hollow tube put into a vein. This is called vascular access.

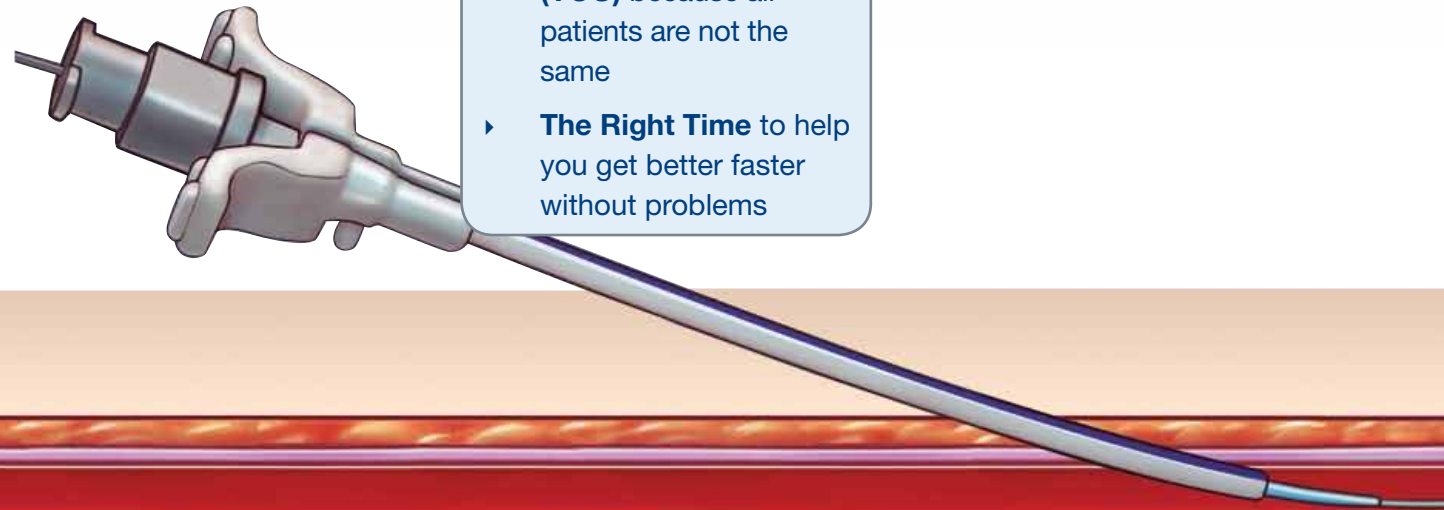
The tube is called a vascular access device, catheter, or line. The line lets the healthcare team put medicines and special liquids known as solutions into your bloodstream that are used to take care of you.

## Why is it important for me to know about vascular access?

The best vascular access is:

- ▶ **The Right Line** to care for you safely
- ▶ **The Right Patient (YOU)** because all patients are not the same
- ▶ **The Right Time** to help you get better faster without problems

There are many types of vascular access devices or lines. Your healthcare team will decide what type of line you get. You are part of the decision because it is important to choose the Right Line, for the Right Patient, at the Right Time.



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# PART 1 – VASCULAR ACCESS

## What is the Right Line for me?

There are 2 types of lines:

- ▶ **Peripheral Lines:** are put into small veins of the hand and arm and end in those veins. Some peripherally placed catheters (e.g. PICCs) are placed peripherally but end in the large veins near the heart.
- ▶ **Central Lines:** are put into large veins of the arm, neck, chest or groin and end in a large vein near the heart.

The type of vascular access device or line that is best for you is one that will allow you to get medicines and solutions put into your bloodstream safely.

Some medicines and solutions can damage small veins because of their strength. These medicines and solutions need to be given into a large vein to keep this from happening.

Because blood flows very fast in the large vein leading to the heart, medicines and solutions can mix quickly with the blood. This prevents damage that may be caused by some medicines and solutions when they are given into a small vein like those in the hand or arm.



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# PART 1 – VASCULAR ACCESS

## The Right Patient

It is important that you get the right vascular access device. The healthcare team will consider the following:

- ▶ How long will you need to have a vascular access device or line?
- ▶ What do you need to get better?
- ▶ Do you need special tests?
- ▶ Do you have other special needs for a vascular access device or line such as blood tests?
- ▶ Are the medicines and solutions that you need gentle or harsh on veins?
- ▶ Will the reason you are getting a vascular access device or line increase your chances for having vascular access problems?
- ▶ Have you had a vascular access device or line before? If you have – did you have any problems?
- ▶ Do you have healthy skin and veins?
- ▶ Do you have other health problems?

Some patients need their medicines and solutions given into a vein when they go home or are taken care of at a doctor's office or clinic.

A special type of vascular access device or line may be best for you if you have special needs, e.g., requiring many blood tests, receiving special X-rays, or requiring several measurements of bloodstream pressure.



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# PART 1 – VASCULAR ACCESS

## The Right Time

**The Right Time** means to make sure that you get the vascular access device or line that is best for you as soon as you need it.

You may get a vascular access device or line as soon as your care begins that will take care of all of your needs.

Sometimes, the first type of vascular access device or line is changed to a different type depending on your condition and your need to have other kinds of medications or treatments.

## What are the different types of vascular access devices or lines?

### Peripheral IV Catheter (PIV)

- ▶ This type of catheter may be called an IV or PIV. They are very short and are usually inserted into the small veins in the hand and arm – up to the bend in the arm.
- ▶ PIVs are best used when vascular access is only needed for up to 5 days.
- ▶ PIVs are only used for medicines and solutions that do not damage the veins.



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## PART 1 – VASCULAR ACCESS

### What are the different types of vascular access devices or lines?

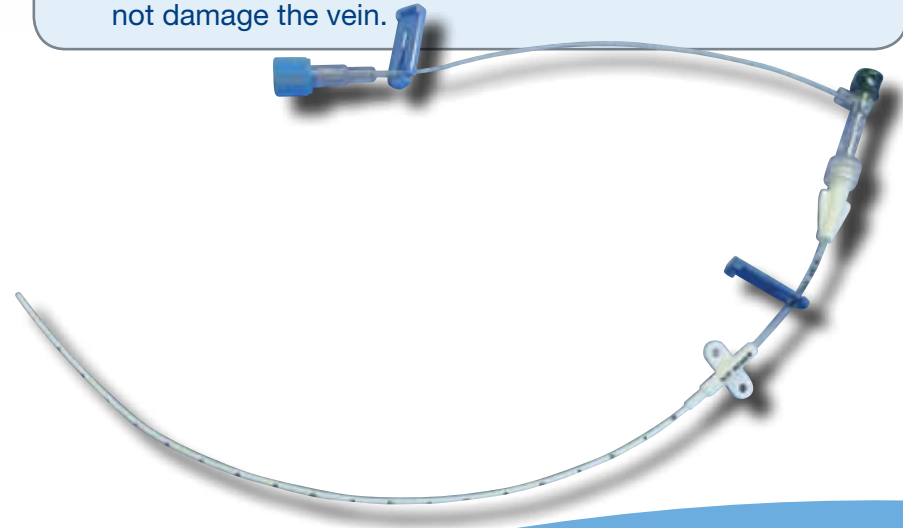
#### Extended Dwell PIV

- ▶ Extended Dwell PIVs are just a bit longer than a PIV and are most often put into the veins of the arm.
- ▶ These catheters are used up to 29 days. Like a PIV, they are only used to give medicines and solutions that do not damage the vein.

### What are the different types of vascular access devices or lines?

#### Midline Catheter

- ▶ A midline catheter is a catheter that may be up to 8 inches (20 cm) long. They are put into small veins above or just below the bend in the arm.
- ▶ They may be used for many days or weeks. Like a PIV, they are only used to give medicines and solutions that do not damage the vein.



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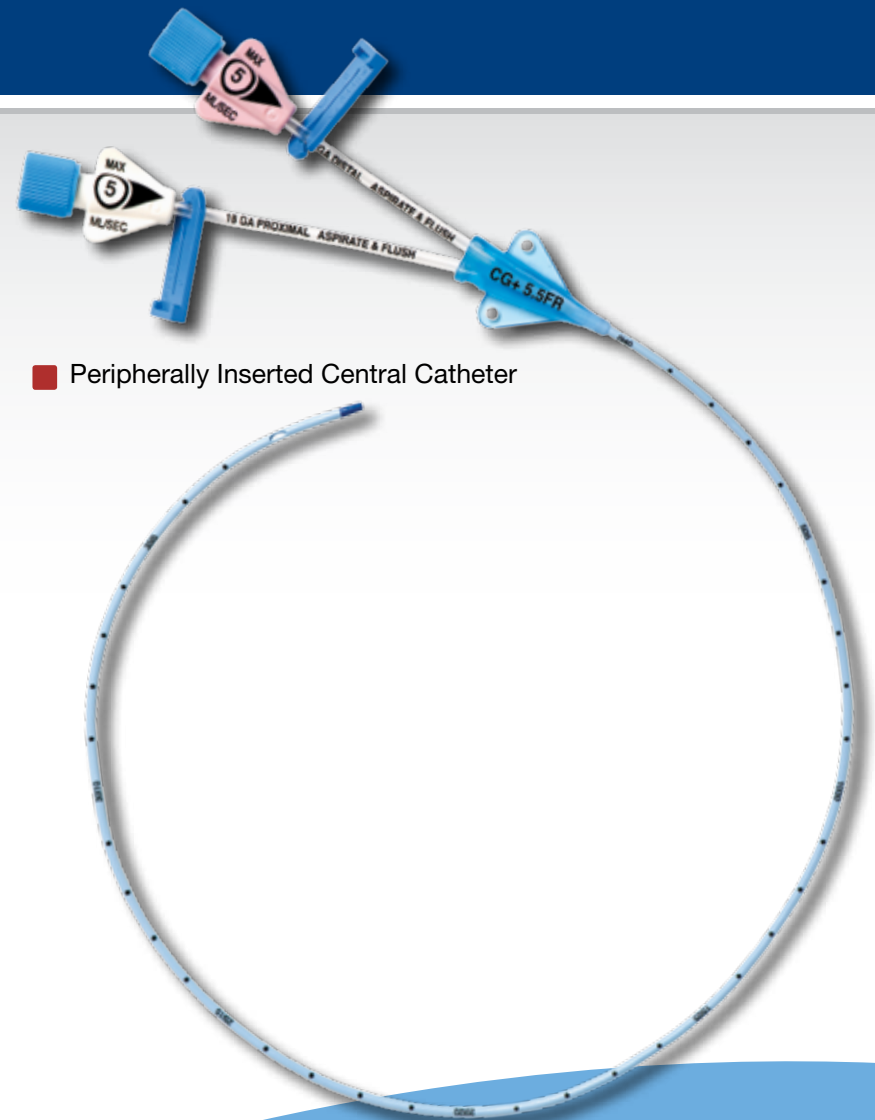


## PART 1 – VASCULAR ACCESS

### What are the different types of vascular access devices or lines?

#### PICC (Peripherally Inserted Central Catheter)

- ▶ PICC is a very long catheter that is put into a “medium sized” vein above the bend in the arm. The tip of the catheter ends in a large vein near the heart.
- ▶ A PICC may be used for many days, months, and sometimes even a year or more.
- ▶ The PICC is a kind of central venous catheter meaning that it may be used for even the strongest medicines and solutions.
- ▶ Since blood flows very fast in the large vein leading to the heart, medicines and solutions can mix quickly with the blood. This prevents damage that may be caused by some medicines and solutions when they are given into a small vein like those in the hand or arm.
- ▶ PICCs may also be used to take samples of blood for blood tests (instead of sticking a needle in your arm) and to check pressure in the bloodstream. Some PICCs are treated inside and outside with a solution that fights germs to help protect you from getting an infection.



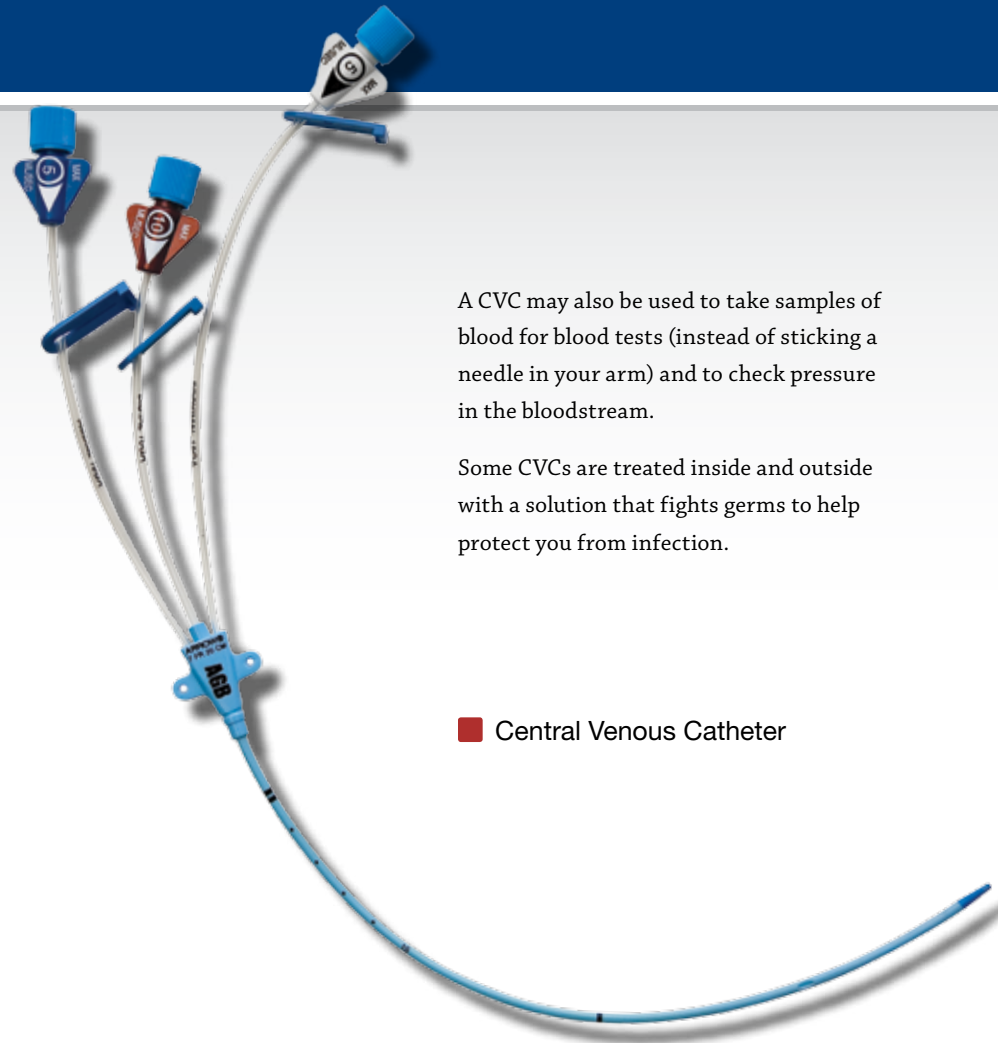
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## PART 1 – VASCULAR ACCESS

### What are the different types of vascular access devices or lines?

#### CVC (Central Venous Catheter)

- ▶ A CVC is a long tube that is put into a large vein of the neck, chest, or groin and ends in a large vein near the heart. It may be called by many names such as CVC, PCVC, Triple-lumen, or Central Line.
- ▶ Most CVCs are used up to 29 days, but some are used longer.
- ▶ A CVC is a kind of central venous catheter meaning that it may be used for the strongest medicines and solutions.
- ▶ Since blood flows very fast in the large vein leading to the heart, medicines and solutions can mix quickly with the blood. This prevents damage that may be caused by some medicines and solutions when they are given into a small vein like those in the hand or arm.



A CVC may also be used to take samples of blood for blood tests (instead of sticking a needle in your arm) and to check pressure in the bloodstream.

Some CVCs are treated inside and outside with a solution that fights germs to help protect you from infection.

■ Central Venous Catheter

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## PART 1 – VASCULAR ACCESS

### What are the different types of vascular access devices or lines?

#### Implanted Port

- ▶ This is a very different vascular access device.
- ▶ Implanted means that the whole catheter is put under the skin and into a very large vein with a very simple operation; the catheter is connected to a special “port” made of plastic or metal that stays under the skin.
- ▶ To use the port to give medicines or solutions into your bloodstream, a small needle is put into the port through your skin.
- ▶ An implanted port may be used for many months or years. It is put into patients who need strong medications and solutions for a very long time. It can also be used to take samples of blood for tests. A fine needle is inserted through the skin into the port to give medications and take blood samples. Once the medication is given or the blood sample is taken the fine needle may be removed.



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# PART 1 – VASCULAR ACCESS

## What are the different types of vascular access devices or lines?

### Tunneled CVC

- ▶ A tunneled CVC is a long tube that is put into a large vein of the neck, chest, arm, or groin and ends in a large vein near the heart.
- ▶ The difference between this kind of catheter and a regular CVC is that part of the catheter is under your skin – usually on your chest instead of right where the catheter is inserted.
- ▶ Most tunneled CVCs can be used for weeks to months – some may be used longer.
- ▶ A tunneled catheter is a kind of central venous catheter meaning that it may be used for the strongest medicines and solutions.

Since blood flows very fast in the large vein leading to the heart, medicines and solutions can mix quickly with the blood. This prevents damage that may be caused by some medicines and solutions when they are given into a small vein like those in the hand or arm.

A tunneled CVC may also be used to take samples of blood for blood tests (instead of sticking a needle in your arm) and to check pressure in the bloodstream.



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### Rules to Keep You & Your Veins Healthy

- ▶ The Right Line, Right Patient, Right Time™
- ▶ When the Vascular Access Device is put in
- ▶ While you have the Vascular Access Device

Vessel Health and Preservation is a plan designed to keep your veins healthy when you have a vascular access device or line.

The Vessel Health and Preservation Plan guides the healthcare team in making decisions about the right line for you. **YOU** are an important part of the healthcare team and will help make the decision on the right line for yourself.

In the first part of this book, you learned about the Right Line, Right Patient, Right Time.

The Right Time is not only about getting the vascular access device or line as soon as you need it. The Vessel Health and Preservation Care Plan includes how your vascular access device is put in and its care – at the Right Time.

### Inserting the Vascular Access Device

- ▶ The inserter and any helpers will be very careful to prevent germs from getting on or into your vascular access device when it is put in – this is called sterile technique
- ▶ If you are getting a Central Line the inserter may use a technology called ultrasound. Ultrasound is a painless way for the inserter to see your vein from the outside of your body. A small, hand-held probe is placed on top of your skin. The probe sends the picture of your vein to a screen in your room. The inserter knows exactly where your vein is and where to place your vascular access device.

A specially trained member of your healthcare team will put the vascular access device in your vein. This person is the inserter.

Before the device is put in, you'll be told about the kind of vascular access device that's been chosen, why you need it, how it will be put in, and any problems that may happen when it is put in.

You'll be asked if you are sure you want the vascular access device. The inserter will answer any questions you have.



### Looking at the Vascular Access Device Every Day

A member of your healthcare team will look at and assess your vascular access device carefully every day to:

- ▶ Make sure you have no problems
- ▶ See if it is working the way it should be
- ▶ Examine your skin where it is inserted
- ▶ Make sure your vein remains healthy

Your healthcare team will also work together to make sure that your vascular access device is taken out of the vein as soon as you no longer need it.

### What You Can Do To Help

Tell a member of the healthcare team if you think there is a problem with your vascular access device:

- ▶ If you feel pain where the vascular access device exits the skin (this is called the site) or it just feels uncomfortable
- ▶ If you see or feel anything leaking from the site
- ▶ If the dressing (the covering that keep the site protected from germs) is loose, wet, or becomes dirty
- ▶ If you have a temperature above 100.4° F or 38°C

### Important rules to know to prevent infection

- Ask the members of your healthcare team to explain why you need the catheter and how long you will have it.
- Ask the members of your healthcare team if they will be using all of the infection prevention methods (see page 29 for a full list of recommended infection prevention steps).
- Make sure that all healthcare team members caring for you clean their hands with soap and water or an alcohol-based rub before and after caring for you.
- Make sure you don't get the site or dressing wet when taking a bath.
- Don't touch the site, dressing, or tubing more than you need to.
- Don't let family members or visitors touch the site, dressing, or tubing.

These easy rules will help keep you and your veins safe and healthy.

### What problems can happen with my vascular access device?

You can help by knowing the problems that can happen and the ways to avoid problems before they start.

It is always important that you tell the members of your healthcare team if you think you have a problem.

It is also important to remind them if you think they are not taking care of your vascular access device the way they should be.

PROBLEM	WHAT IT MEANS	HOW TO PREVENT IT
▶ <b>Infection</b>	<p>Site infection happens when germs get into the skin at the insertion site. Let your healthcare team know if :</p> <ul style="list-style-type: none"><li>• There is pain or soreness at the insertion site</li><li>• There is swelling at the insertion site</li><li>• The insertion site looks red around the CVC</li><li>• The skin at the insertion site feels warm</li><li>• There is any leaking at the insertion site</li></ul>	<p>Site infection is prevented by making sure that the dressing is clean, dry (underneath and on top), and is not loose.</p> <p>The healthcare team will take the old dressing off, clean the site, and place a new dressing at least once a week.</p>

PROBLEM	WHAT IT MEANS	HOW TO PREVENT IT
▶ <b>Infection</b>	<p>Central Line Associated Bloodstream Infection (CLABSI (clab-see))</p> <p>CLABSI is an infection in the blood when bacteria or other germs travel down a "central line" and enter the bloodstream.</p>	<p>The risk of this very serious problem is minimized by making sure that you and the healthcare team are very careful and keep germs from getting into or on the CVC.</p> <p>If you do develop a bloodstream infection, it can often be treated successfully with antibiotics. The catheter may be removed if you develop an infection.</p>

PROBLEM	WHAT IT MEANS	HOW TO PREVENT IT
▶ <b>Phlebitis</b>	<p>A swelling sore or injured vein: the vein where the vascular access device or line was put in may look red and be warm to touch.</p>	<p>The vein may be too small for the strength of the medicines or solutions. The best way to keep it from happening is for the healthcare team to choose the right line.</p> <p>It may also happen because the vascular access device is too big for the vein or damaged the vein when it was inserted.</p>



PROBLEM	WHAT IT MEANS	HOW TO PREVENT IT
▶ <b>Thrombosis or thrombus</b>	A blood clot in a vein that can slow or stop up the vein.	A blood clot can be caused by many things – damage to your veins from strong medicines and solutions, a vascular access device that is too big for the vein, and even just because of some healthcare problems.
▶ <b>Stopped up line</b>	A blood clot at the end or inside of the vascular access device or a pinch in the line that keeps it from working.	A member of your healthcare team will assess the line at least once a day to make sure it is working well.

## What hospitals are doing to prevent infections?

### To prevent catheter-associated bloodstream infections healthcare teams will:

- Choose a vein where the catheter can be safely inserted and where the risk for infection is small.
- Clean their hands with soap and water or an alcohol-based hand rub before putting in the catheter.
- Wear a mask, cap, sterile gown, and sterile gloves when putting in the catheter to keep it sterile. You will be covered with a sterile sheet.
- Clean your skin with an antiseptic cleanser before inserting the catheter.
- Clean their hands, wear gloves, and clean the catheter opening with an antiseptic solution before using the catheter to draw blood or give medications. Healthcare teams also clean their hands and wear gloves when changing the bandages that covers the area where the catheter enters the skin.
- Decide every day if a patient still needs to have the catheter. The catheter will be removed as soon as it is no longer needed.
- Carefully handle medications and fluids that are given through the catheter.

Understanding why you have a vascular access device and making sure that YOU are a member of your healthcare team will help you get better. Following a Vessel Health and Preservation Care Plan will help preserve and keep your veins healthy.

### Taking care of your catheter in a healthcare setting

1. Be sure to ask any questions you may have about vascular access. While you are in the hospital, a member of the healthcare team will be responsible for caring for your CVC. Watch how they care for your CVC so you can learn the best care to prevent problems. YOU are a key part of your healthcare team.
2. Wash hands and put on gloves before touching the CVC to give medicines, solutions, take a blood sample, flush the CVC or change the dressing.
3. Before attaching a syringe or tubes to the hub (or needleless connector – a cap on the hub of your CVC) they will clean it carefully by wiping it with an alcohol pad for 15-30 seconds.  
They will wipe it with alcohol this way every time they attach to the hub or connector, even if they have cleaned it just a few minutes before (between every attachment).
4. They will always check to make sure the CVC lumens are not “stopped-up” by flushing each lumen before using them to give medications, IV solutions, or drawing blood. They will also make sure that they can see blood come back into the extension tube before flushing. If a lumen is “stopped up” it may be treated with a special medicine to reopen the lumen.
5. If the dressing (tape or bandage) is loose at its edges, dirty or wet (underneath or on top) they will take it off and put a new dressing on. Remember, the dressing helps keep the CVC from moving and protects it from germs.
6. When CVC dressings are taken off, sterile gloves and a mask are worn while the site is cleaned and the new dressing is applied using sterile technique.
7. If a needleless connector (cap), or IV tubing becomes loose or comes off there may be leaking of blood or solution from the hub. Tell your nurse right away, they will clean the hub and put a new tubing or needleless connector on the hub.
8. If the CVC is pulled out by accident, make sure you tell your nurse, even if it only comes out “a little bit.” Never try to push it back in.
9. Scissors should never be used to take off dressing or tape.
  - ▶ Taking care of your vascular access device is very important to keep you well and to be able to give medicines and solutions that can make you better. The information in this booklet will help keep you and your vascular access device safe.
  - ▶ Ask a member of the healthcare team to explain anything you may not understand in this booklet.

A Glossary of important words and terms for you to know follows in part 3 of this guide.

## Taking Care of Your Catheter at Home

- ▶ Make sure you understand how to care for the catheter before leaving the hospital. For example, ask for instructions on showering or bathing with the catheter and how to change the catheter dressing.<sup>1</sup>
- ▶ Make sure you know who to contact if you have questions or problems after you get home.<sup>1</sup>
- ▶ Make sure you wash your hands with soap and water or an alcohol-based hand rub before handling your catheter.<sup>1</sup>
- ▶ Watch for signs and symptoms of catheter-associated blood-stream infection, such as fever, or soreness or redness at the catheter site. Call your health-care provider if any occur.<sup>1</sup>

You or a family member may care for the CVC if you need medicines and IV solutions when you go home. You may have a visiting nurse to help you care for your CVC at home, or you may visit a doctor's office or clinic to receive care.

<b>Central Vein</b>	The large vein that leads to the heart is also known as the Superior Vena Cava or SVC. To reach this vein a vascular access device is put into a large vein in the upper part of the arm, the neck, or chest.
<b>CVC</b>	A type of vascular access device that is put into a large vein in the arm, neck or chest; it ends in the large vein in the body near the heart.
<b>Dressing</b>	A covering, usually clear, that is placed over the insertion site to keep it clean and protect against infection and accidental moving or pulling on the catheter.
<b>Flush</b>	A vascular access device needs to be cleaned out to keep it working. This is called flush or flushing. A member of the healthcare team will flush the catheter with a syringe filled with a special solution called normal saline by pushing the solution into the catheter.
<b>Infection</b>	When germs get into the skin, blood, or body, creating infection.
<b>Insertion</b>	The member of the healthcare team that puts in your vascular access device.
<b>Needleless connector</b>	A special cap that screws onto the outside end of the vascular access device (hub). This protects the catheter and must be cleaned with an alcohol pad before anything is connected to it such as a syringe or IV tubing.
<b>Peripheral vein</b>	The veins in your arms or hands.



