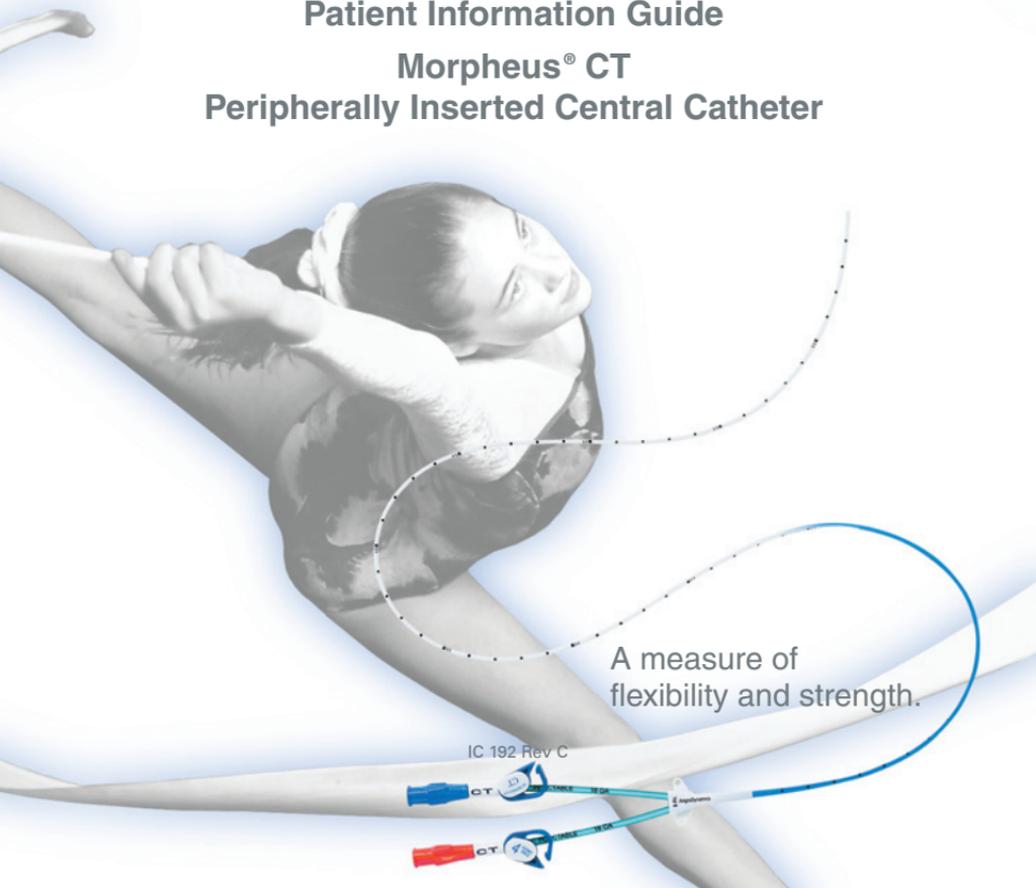




**Patient Information Guide**  
**Morpheus<sup>®</sup> CT**  
**Peripherally Inserted Central Catheter**



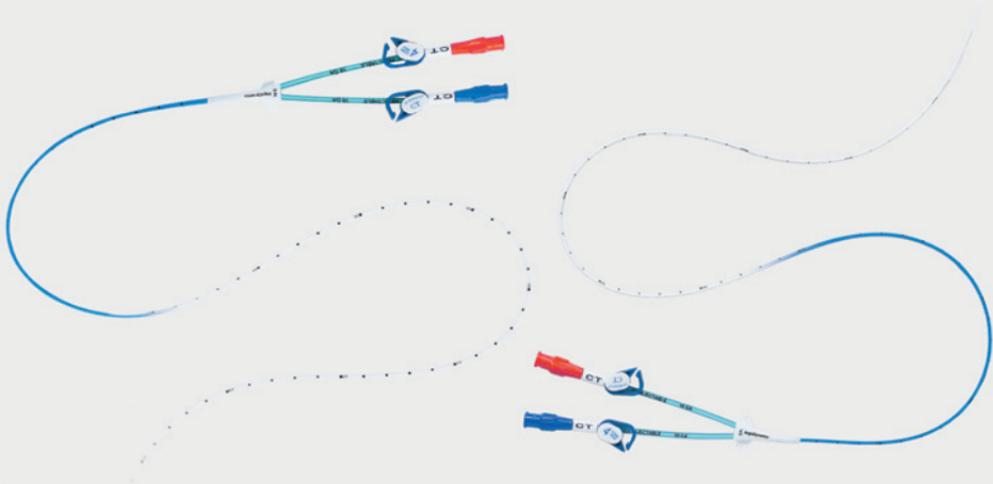
A measure of  
flexibility and strength.

IC 192 Rev C



## Table of Contents

1. Introduction
  2. What is the Morpheus<sup>®</sup> CT PICC?
  3. What to Expect if CT is Needed
  4. Maintenance and Care of Your Catheter
    - Catheter Securement
    - Dressing Changes and When They Should Occur
    - Changing the Cap
    - Flushing Your Catheter
  5. Problems and Solutions
- Appendix I. Clinician's Instructions
- Appendix II. Doctor's Instructions, Records and Documentation



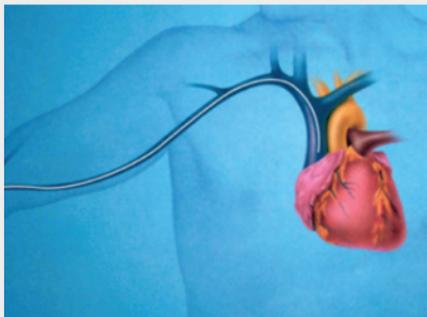
## 1. Introduction

Your physician has requested a Morpheus<sup>®</sup> CT PICC to be inserted for your current treatment. Treatment may include, but not be limited to long term IV medications, frequent administration of IV fluids, power injection of contrast media, and/or frequent blood sampling. The catheter will also provide access for the medications that you need. In addition, the AngioDynamics<sup>®</sup> Morpheus<sup>®</sup> CT PICC is indicated for central venous pressure monitoring.

## 2. What is the Morpheus<sup>®</sup> CT PICC?

The term “PICC” stands for Peripherally Inserted Central Catheter. This type of catheter is placed either in the antecubital space on the arm (the bend of the arm) or somewhere above it. The catheter follows the path of a vein up the arm, across the chest, into a large vein above the heart, called the superior vena cava (SVC). Since all patients are different sizes, the physician will customize the length of the catheter for each patient.

The term “CT” stands for Computerized Tomography. Blood in vessels and other soft tissue details cannot be seen on conventional X-rays. A CT scan enables 3D visualization of tissue at various angles for a more complete picture. The Morpheus<sup>®</sup> CT catheter is used to inject contrast media for the scan.



Peripherally Inserted Central Catheter

With the Morpheus® CT PICC your physician can both administer medications and perform CT imaging using one catheter. Avoiding the need for a second catheter insertion saves time, cuts costs and is more comfortable.

### **3. What to Expect if CT is Needed**

If Computerized Tomography is needed, the clinician will remove the injection caps from the catheter and flush the catheter using a normal saline filled syringe. A small amount of blood will be pulled into the syringe to make sure the catheter is working. After removing the syringe, the Power Injection Device will be attached to the catheter. When this device is activated contrast media will flow through the catheter. Once the imaging is completed, the device will be disconnected, the catheter will be flushed and the injection caps will be reattached.

**Clinician Instructions for Power Injection can be found in Appendix I.**

### **4. Maintenance and Care of Your Catheter**

Once your Morpheus® CT PICC is placed, a small portion of the catheter will be left exposed on the outside of the body. A sterile dressing will be placed over the catheter insertion site, protecting it from bacteria and preventing the catheter from moving or breaking. This dressing will need to remain dry and intact. Catheter dressings will be changed at established intervals, depending on the dressing material. The dressing will need to be changed immediately if it becomes contaminated, wet, or is no longer adhering properly. If gauze is placed under the dressing, a dressing change will be required every 48 hours.

## Catheter Securement

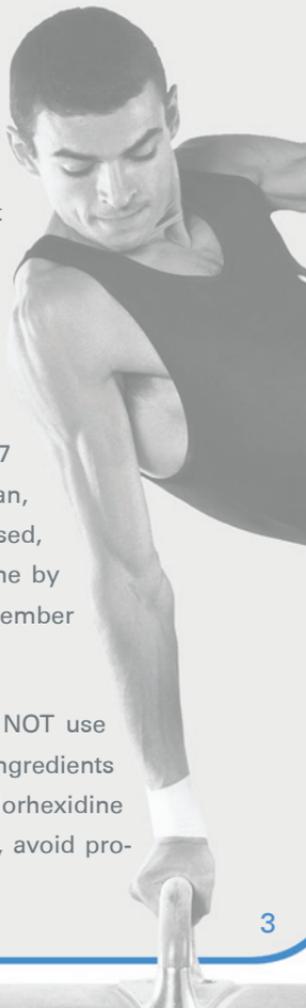
The Morpheus<sup>®</sup> CT PICC may be secured by sutures, sterile tape, or a special securement device made to hold the catheter in place. The sterile tape and securement device must be changed with every dressing change. Continued delay in changing these items may lead to an infection.

Clinician Instructions for the STATLOCK<sup>®</sup> stabilization device and for tape strip stabilization can be found in Appendix I.

## Dressing Changes and When They Should Occur

A dressing change is changing the sterile tape that covers your catheter and insertion site. Great care must be taken when handling your catheter. Always wash your hands prior to handling your catheter. Your healthcare institution will let you know how often your dressing will need to be changed. This should be done on a regular basis, usually every 3-7 days. Remember to **always** keep the dressing clean, dry, and intact. If the dressing becomes compromised, change the dressing immediately. This may be done by a trained healthcare professional, or by a family member that has been trained to perform this procedure.

When cleaning the area around your catheter DO NOT use acetone based solutions. Check product labeling for ingredients before using. You may use povadine-iodine and/or chlorhexidine gluconate. When using products containing alcohol, avoid prolonged or excessive contact with the catheter.



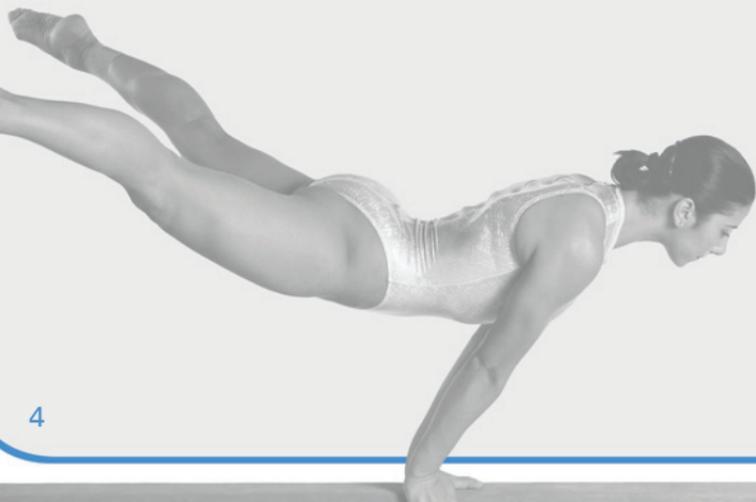
## Changing the Injection Cap

The Morpheus® CT PICC may have an injection cap placed on the end of the catheter. This is a removable device made for accessing the catheter. If your catheter has one, the cap will need to be changed according to instructions from your healthcare institution.

## Flushing Your Catheter

The Morpheus® CT PICC will need to be flushed at established intervals to be sure it remains unobstructed. This will also help to avoid mixing incompatible medications. The catheter will need to be flushed with saline and possibly heparin. Heparin is an anti-clotting solution, which helps to prevent blood from clotting within your catheter. Your healthcare institution will determine the amounts and appropriate solutions to be used.

**NOTE: Doctor's Instructions and documentation of care and maintenance for your catheter can be found in Appendix II, at the back of this booklet.**



## 5. Problems and Solutions

It is normal to see a small red bump at the site of your catheter insertion. There should be no pain, and after the first dressing change, no drainage. The following chart outlines symptoms and solutions. Do not hesitate to contact your nurse or physician should you experience any of these symptoms.

### Catheter Occlusion

Catheter occlusion is the partial or complete obstruction of a catheter, preventing or limiting the infusion of solution or medication.\*

\*Policies and Procedures for Infusion Nursing, 2nd Edition, pg. 116

### Possible Solution

Remove the injection cap and attempt to flush catheter. NEVER force fluids into catheter. Make sure the clamps are open. Check the catheter for kinks. Contact your nurse or physician if catheter is still occluded.

### Phlebitis

Phlebitis is an inflammation of the vein, which can cause pain, tenderness and sometimes leakage at the insertion site.\*

\*Policies and Procedures for Infusion Nursing, 2nd Edition, pg. 116

### Possible Solution

Apply a heating pad to affected arm for 20 minutes at a time, four times a day. If symptoms continue, contact your nurse or physician.\*

\*Policies and Procedures for Infusion Nursing, 2nd Edition, pg. 125

### Infection

Signs and symptoms of infection can include, but are not limited to, fever, redness at the insertion site, tenderness, and/or drainage from the insertion site.

### Possible Solution

Contact your nurse or physician.

## Appendix I. Clinician's Instructions

### Important Information Regarding Morpheus® CT PICC:

- Contrast media should be warmed to body temperature prior to power injection.  
**WARNING: Failure to warm contrast media to body temperature prior to power injection may result in catheter failure.**
- Vigorously flush the Morpheus® CT PICC using a 10cc or larger syringe and sterile normal saline prior to and immediately following the completion of power injection studies. This will ensure the patency of the Morpheus® CT PICC and prevent damage to the catheter. Resistance to flushing may indicate partial or complete catheter occlusion. Do not proceed with power injection study until occlusion has been cleared.
- Positive Displacement Valve Instructions:  
**NOTE:** Change valves according to hospital or institution protocol.

### MaxPlus® Positive Displacement Valve – Directions for Use

1. Invert MaxPlus® valve to prime.
2. Attach to catheter.
3. To access MaxPlus®, always swab top of connector with desired disinfectant according to institution protocol for 15 seconds.
4. Flush the MaxPlus® after each use with 10cc of normal saline, or in accordance with hospital protocol.
5. Disconnect from the MaxPlus® before clamping the catheter leg to facilitate positive displacement.



**Flat and smooth top for optimum swabability**

### Other Valve Flushing:

1. Flush the catheter per facility protocol; or with heparinized saline every 12 hours or after each use. Usually one ml per lumen is adequate.

**NOTE:** When using any positive displacement valve the PICC leg should be unclamped prior to flushing and only clamped again after removal of the syringe.

- Occluded or Partially Occluded Catheter: Catheters that present resistance to flushing and aspiration may be partially or completely occluded. Do not flush against resistance. If the lumen will neither flush nor aspirate and it has been determined that the catheter is occluded, refer to institution protocol.

**WARNING: Failure to ensure patency of the catheter prior to power injection studies may result in catheter failure.**

- Do not exceed the specified maximum flow rate. Power injection testing was completed using a back pressure of 300 PSI, however, catheter pressures did not exceed 250 PSI.

**WARNING: Power injector machine pressure limiting feature may not prevent over pressurization of an occluded catheter.**

**WARNING: Exceeding the maximum flow rate may result in catheter failure and/or catheter tip displacement.**

**WARNING: Morpheus® CT PICC indication for power injection of contrast media implies the catheter's ability to withstand the procedure, but does not imply appropriateness of the procedure for a particular patient. A suitably trained clinician is responsible for evaluating the health status of a patient as it pertains to a power injection procedure.**

**WARNING: Do not use the catheter if there is any evidence of mechanical damage or leaking. Damage to the catheter may lead to rupture, fragmentation, possible embolism and medical intervention.**

### **Power Injection Instructions:**

**NOTE: A chest X-ray or other means of verification of tip placement prior to each CT injection is recommended.**

1. Remove the injection/needleless cap from the Morpheus® CT PICC.
2. Attach a 10cc or larger syringe filled with sterile normal saline.
3. Aspirate for adequate blood return and vigorously flush the catheter with the full 10cc of sterile normal saline.

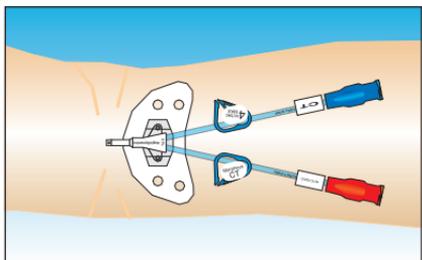
**WARNING: Failure to ensure patency of the catheter prior to power injection studies may result in catheter failure.**

4. Detach syringe.
5. Attach the power injection device to the Morpheus® CT PICC per manufacturer's recommendations.
6. Complete power injection study taking care not to exceed the flow rate limits.

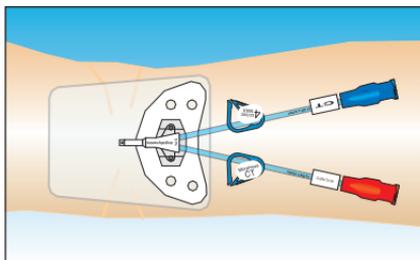
**WARNING: Exceeding the maximum flow rate may result in catheter failure and/or catheter tip displacement. During power injections, catheter pressure should not exceed 250 PSI.**

7. Disconnect the power injection device.
8. Flush the Morpheus® CT PICC with 10cc of sterile normal saline, using a 10cc or larger syringe.
9. Replace the injection/needleless cap on the Morpheus® CT PICC.

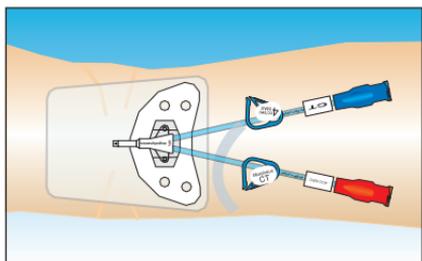
## STATLOCK® Stabilization Device Procedure:



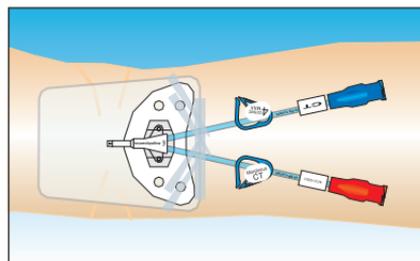
1. Secure catheter with STATLOCK® stabilization device.



2. Cover site and STATLOCK® stabilization device with transparent dressing.



3. Place an anchor tape sticky side up, under one extension leg, under one extension leg. Chevron anchor tape on top of transparent dressing.



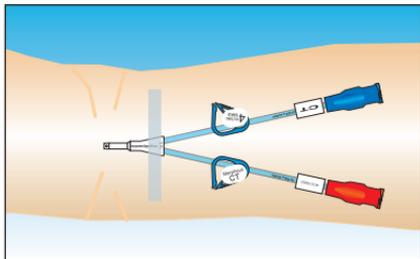
4. Place 2<sup>nd</sup> anchor tape (if appropriate) sticky side up under other extension leg. Chevron anchor tape on top of transparent dressing. Place 3<sup>rd</sup> anchor tape over chevroned tapes across the top of transparent dressing.

**WARNING:** Chlorhexidine gluconate and/or povidone-iodine is the antiseptic suggested for use with Durathane® catheters and components. Do not wipe the catheter with acetone based solutions or ointments. These can damage the material if used over time.

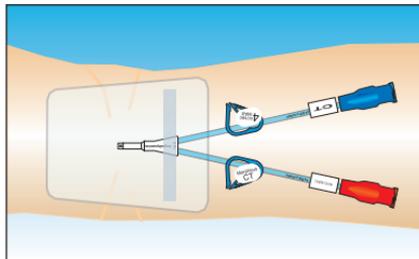
**WARNING:** When using alcohol or alcohol containing antiseptics with Durathane® PICCS, care should be taken to avoid prolonged or excessive contact. Solutions should be allowed to completely dry before applying an occlusive dressing.

**WARNING:** Alcohol should not be used to soak or decontaminate Durathane® PICCS because alcohol is known to degrade Durathane® catheters over time with repeated and prolonged exposure.

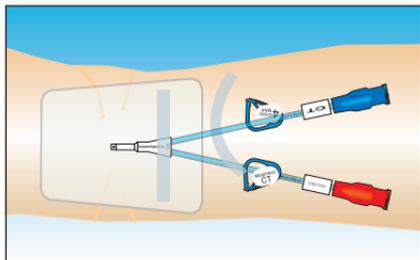
## Tape Strip Stabilization Procedure:



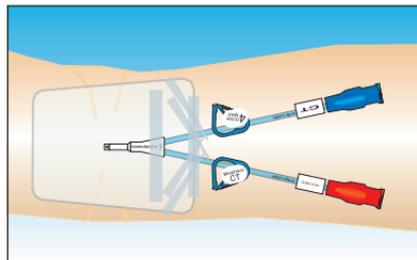
1. Place an anchor tape over wings or bifurcation.



2. Cover site including the bifurcation and anchor tape with transparent dressing.



3. Place 2<sup>nd</sup> anchor tape sticky side up under one extension leg. Chevron anchor tape on top of transparent dressing.



4. Place 3<sup>rd</sup> anchor tape (if appropriate) sticky side up under other extension leg. Chevron anchor tape on top of transparent dressing. Place 4<sup>th</sup> anchor tape over chevroned tapes across the top of transparent dressing.

**Caution:** The catheter must be secured in place to minimize the risk of catheter breakage and embolization.

## Appendix II. Doctor's Instructions, Records, and Documentation

### Morpheus® CT PICC Catheter Record (to record details of the insertion)

Patient Name \_\_\_\_\_

Hospital \_\_\_\_\_

Hospital Phone \_\_\_\_\_

IV Nurse's Name \_\_\_\_\_

IV Nurse's Phone # \_\_\_\_\_

Home Care Agency Name \_\_\_\_\_

Home Care Agency Phone # \_\_\_\_\_

Date Morpheus® CT Line Inserted \_\_\_\_\_

Total Catheter Length \_\_\_\_\_

Centimeters Inside Patient \_\_\_\_\_

Centimeters Exposed \_\_\_\_\_

Notes \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Special Instructions from Your Doctor:

### Dressing Changes

Frequency \_\_\_\_\_

Instructions \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Flushing

Frequency \_\_\_\_\_

Flushing Solution: \_\_\_\_\_ Saline \_\_\_\_\_ Heparin Saline

### Injection Cap Changes

Frequency \_\_\_\_\_

Notes \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

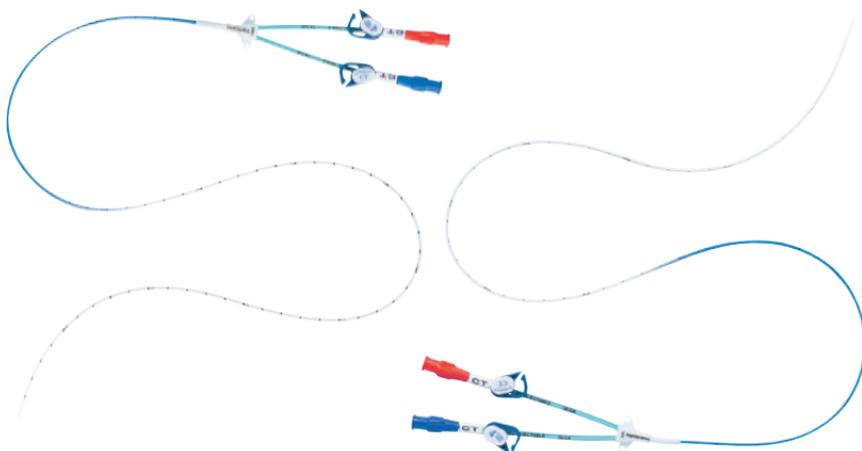
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With proper care the Morpheus® CT PICC provides convenient, long-term service for the patient and physician. If you have any questions about the catheter, the procedure or the care of the catheter, do not hesitate to contact your nurse or physician.



This Patient Guide was prepared by Sandra Mehner, RN, May 2005.

Peripherally Inserted Central Catheter figure reprinted from O'Neill, Grosfeld, Fonkalsrud & Coran: "Principals of Pediatric Surgery"; 2/E © 2004 Mosby.

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