

# VATA

*Realism in Clinical Simulation*

## **Chester Chest™ – 2400/2402 and 2410/2412 USER MANUAL**



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## Thank You For Your Purchase!

*Thank you for your purchase of **VATA's Chester Chest™**.*

**Chester Chest™**, an industry standard since 1987, enables physicians, nurses, home health staff, patients and support persons to develop competence with the most common types of vascular access devices. Within one realistic and portable training aid, is a great tool for teaching, training, competency testing and skills assessment. This is the most realistic and complete model for central line care offered anywhere! The area around all catheter sites can be used to practice cleansing, application of dressings and securement devices, fluid infusion and withdrawal.

Please read the entire User's Manual carefully before using the model to insure that you understand the proper care and use. This will also avoid situations that may not be covered by the warranty and help you enjoy the maximum benefit.

### Contact Information

Whatever your question, problem, or comment, **VATA's** Customer Service is here to help. There are four quick, easy ways to contact us, so you can choose what works best for you. If there's anything we can do, just let us know!

**VATA Inc.**

**308 South Sequoia Parkway, Canby, Oregon 97013, USA**

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## Overview of Chester Chest™

### **The left chest area of Chester Chest™ features:**

- Outer Tissue Flap 0405/0404 – A specially formulated material duplicates the feel of human tissue which, when placed over the chest port, provides a realistic practice of palpating and accessing, with proper access of the port being confirmed by a blood withdrawal – just like the real thing!
- A real implanted port under the Outer Tissue Flap
- Difficult Accessing Inserts 0420/0421, 0430/0431 and 0440/0441 which are made of a soft tissue like material and placed either under or over the port to simulate palpating and accessing a port with one of the following types of placements: normal, “tipping”, “wandering” or “deeply placed”.
- A rigid underlying surface with molded ribs and a recessed area for the interchangeable inserts

### **The right chest area of Chester Chest™ features:**

- A 9.6FR tunneled central catheter that is visible up to the clavicle. The Dacron cuff is also discernable.
- An external jugular vein is slightly raised with an opening for you to insert your own catheter and there is also an opening in the clavical area for the placement of a subclavian catheter.

### **The arm of Chester Chest™ features:**

- A dual lumen 5FR PICC (Peripherally Inserted Central Catheter) exiting the basilic vein from the inner bicep area, which is currently the preferred site for placement. The basilic vein is slightly raised for easy identification.
- A pre-positioned 20g IV catheter in the forearm.

*\*Note: There is also an option to purchase Chester Chest with a Port Access Arm (pictured on page 7), which includes features of the standard arm plus a recessed area for the placement of a peripheral arm port. (Port not included). The base of the recessed area is made of soft material that permits the port to “float” when accessed. This area is covered with a removable tissue-like flap which, when placed over the port, provides the realistic feel of palpating and accessing.*

All central lines are attached to a simulated blood reservoir bag in either the torso or the arm to permit the practice of “blood” withdrawal and fluid infusion. Cleansing, application of dressings and securement devices can be demonstrated at all sites.

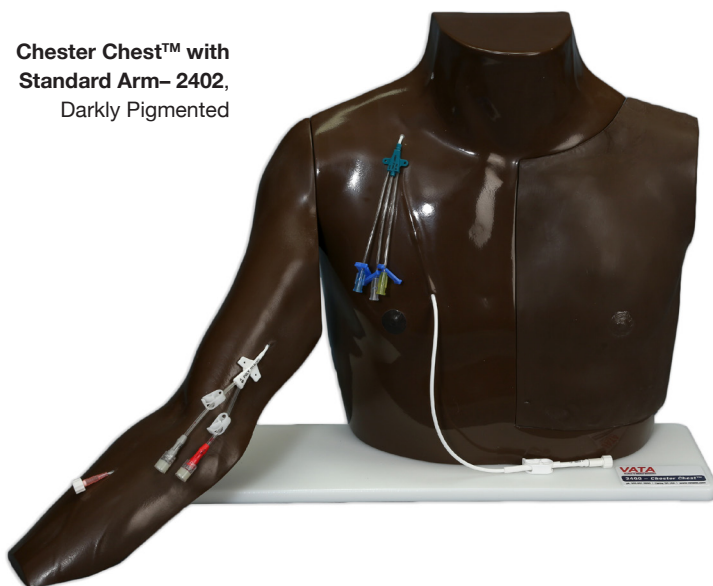
## Overview of *Chester Chest™*, cont.

***Chester Chest™*** can be used in either the upright or supine position. Chester is available in both lightly or darkly pigmented versions. If you would prefer, you can send us the catheters your institution uses and we can install them for you.

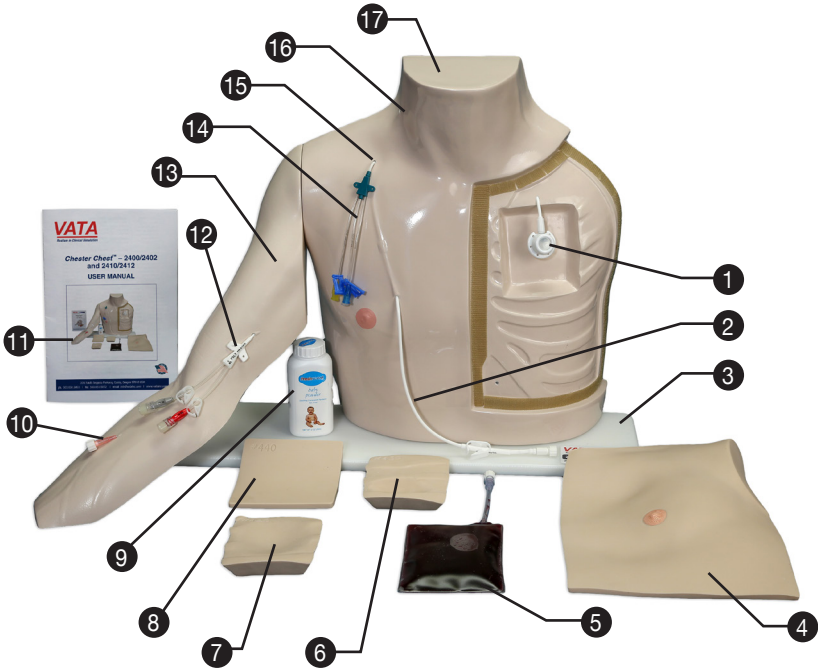
***A video overview of Chester can be found on our website:***

***<https://vatainc.com/resources/videos>***

**Chester Chest™ with  
Standard Arm– 2402,  
Darkly Pigmented**

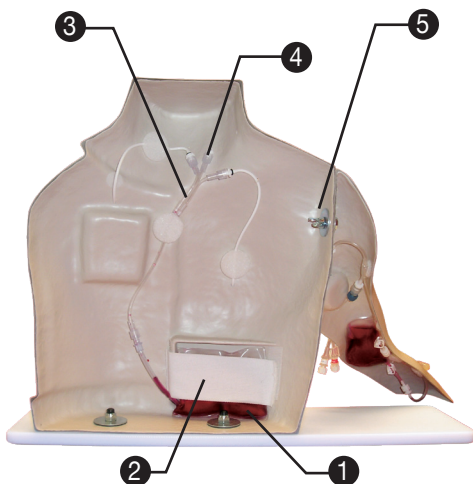


## Chester Chest™ – 2400



- ① 0406 Real Port (IVAD)
- ② 0407 Tunneled Central Catheter 9.6FR
- ③ Base
- ④ 0405 Outer Tissue Flap
- ⑤ 0451 Simulated Blood Reservoir Bag for Torso
- ⑥ 0430 Difficult Accessing Insert simulates “tipping” port
- ⑦ 0420 Difficult Access Insert simulates a “wandering” port
- ⑧ 0440 Difficult Access Insert simulates a deeply placed port
- ⑨ 0458 Talc-Cornstarch
- ⑩ IV Catheter 20G
- ⑪ User’s Manual
- ⑫ 0408 Dual Lumen PICC 5FR
- ⑬ 2388 Standard Arm
- ⑭ 0410 **Optional** Triple Lumen Catheter Shown  
(See Models & Parts on p.15)
- ⑮ Opening for **Optional** Subclavian Catheter
- ⑯ Opening for **Optional** Jugular Catheter
- ⑰ Torso

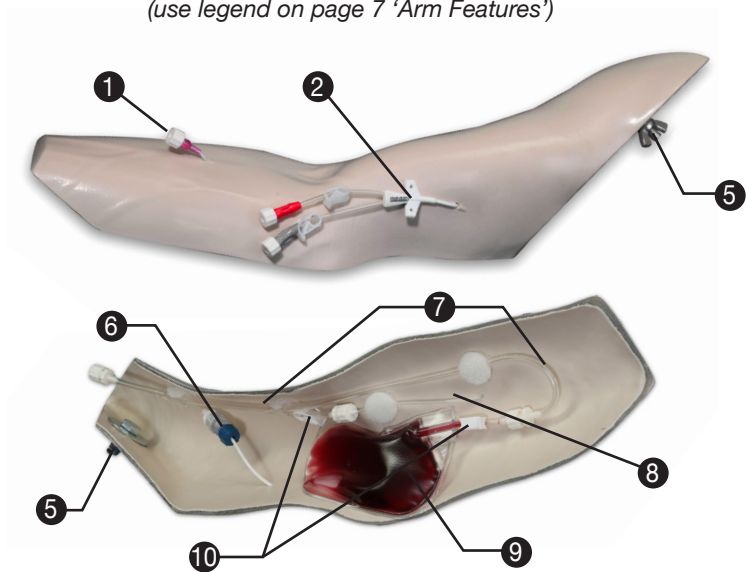
## Backside of Chester Chest™ Torso



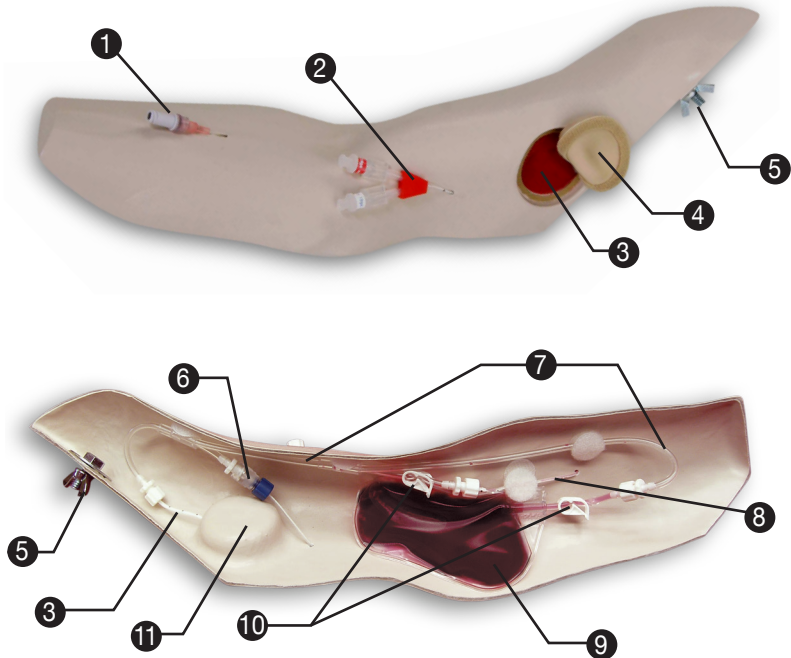
- 1 **0451** Simulated Blood Reservoir Bag for Torso
- 2 Retention Strap for Simulated Blood Reservoir Bag
- 3 **0450** Three Way Parallel Tubing Set for Torso
- 4 Extra connection for use with with Optional Triple Lumen, Subclavian and Jugular Catheters
- 5 **0455** Bolt and Wing Nut to Attach Arm to Torso

## Standard Arm

(use legend on page 7 'Arm Features')



## Port Access Arm



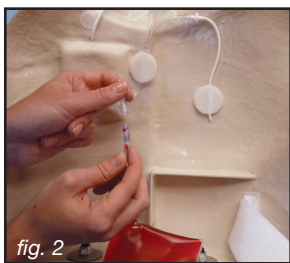
## Arm Features

- ① IV Catheter 20G
- ② 0408 Dual Lumen PICC 5FR
- ③ Recessed area for a Peripheral Port to be placed in arm.  
\*VATA no longer offers optional peripheral arm ports\*
- ④ 0442 skin flap covering recessed area
- ⑤ 0455 Bolt and Wing Nut to Attach Arm to Torso
- ⑥ Dual PICC Attachment to Tubing Set
- ⑦ 0446 Tubing Set for Arm
- ⑧ 20G IV Catheter Attachment to Tubing Set
- ⑨ 0453 Simulated Blood Reservoir Bag for Arm
- ⑩ Snap Clamps
- ⑪ Back of Recessed Area

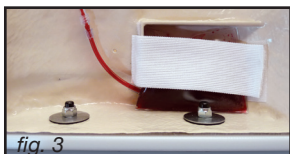
## Setting up your Chester Chest™



Unwrap the arm and body. Set the bag of additional parts, packed with the torso, aside for use later. Place the torso on a flat surface in an upright position. Remove the wing nut from the arm, keeping the bolt in place, and align the bolt with the hole in the right shoulder; insert and reattach the wing nut (see fig. 1).



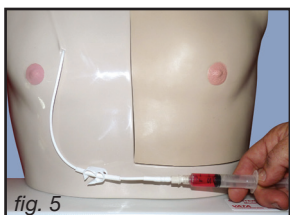
If you are going to use injection caps or needleless access caps, attach before attaching the simulated blood reservoir bag. On the backside of the torso, locate the simulated blood reservoir bag and remove from torso. Carefully remove the white cap on the simulated blood reservoir bag, taking care not to let the liquid leak out and attach the female leuc fitting to the male leuc fitting on the bottom of the three-way parallel tubing (see fig. 2).



Replace the reservoir bag behind the white retention strap, making sure that the tubing attached to the bag is positioned exiting the bag from the bottom (see fig. 3).



Do not position reservoir bag with tubing exiting from the top as you will withdraw air (see fig. 4).



To prime the tubing with simulated blood attach a syringe to the tunneled central venous catheter and drawback to remove all the air in the line. Be sure the snap clamp is open on the catheter. This procedure may need to be repeated depending on the size of your syringe. You are done when the simulated blood is visible in the syringe (see fig. 5).



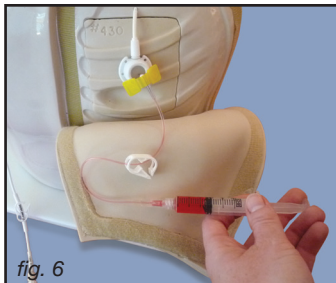


fig. 6

Then remove the Chest Tissue Flap on the left side of the chest (*do not place on printed papers as this can stain the tissue flap*), attach a Huber needle to a syringe and access the port. Repeat the procedure used to prime the tunneled central venous catheter, until simulated blood is visible in the syringe (*see fig. 6*). If you have ordered your model with optional subclavian or jugular catheters, prime using steps for tunneled central catheters (*see fig. 6*).

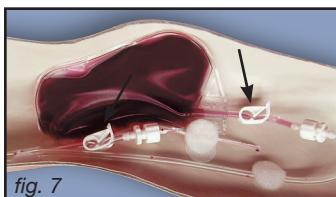


fig. 7

The torso is now primed and ready for use. Please note that one of the three parallel tubing sets is not used and has a cap attached to the male leuc connector. This tubing set is provided should you wish to add a subclavian or jugular catheter (*purchase of a special connector may be needed for some catheters*).

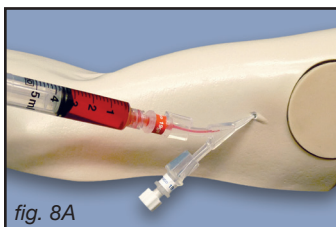


fig. 8A

To prime the arm tubing, attach injection caps or needless access devices on the IV catheters and dual lumen PICC before attaching the simulated blood reservoir bag. On the backside of the arm, open all snap clamps (*see fig. 7*).



fig. 8B

Attach a syringe to each side of the dual lumen PICC and withdraw air, until simulated blood is visible in the syringe. This procedure may need to be repeated, depending on the size of your syringe. Repeat this procedure with the IV catheter (*see fig. 8A & 8B*). If a peripheral port has been installed in the arm, attach a Huber needle to a syringe, access the port and withdraw air until simulated blood is visible in the syringe (*see fig. 9*). The arm is now primed and ready for use.

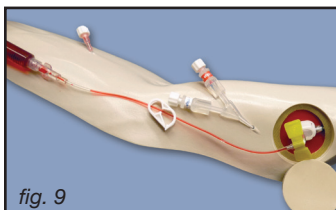


fig. 9

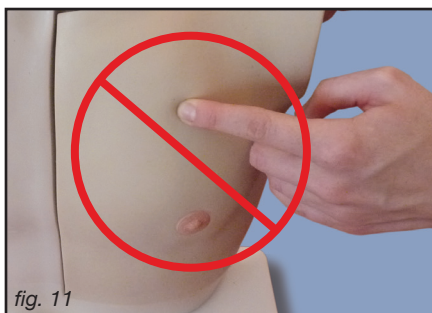
## Proper Use of your Chester Chest™

### Chest Tissue Flap – 0405

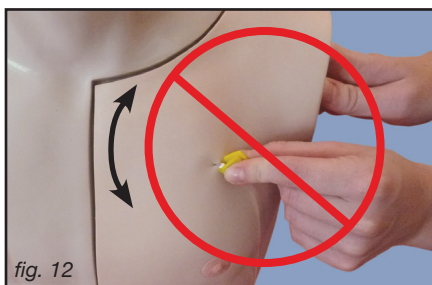
When removing the Chest Tissue Flap, always pull gently from the edge to prevent damage to the flap. Due to the elasticity of the Chest Tissue Flap, it may be easier to attach when Chester Chest™ is in a supine position. In order to ensure a realistic feel when palpating the port (IVAD), the Chest Tissue Flap is formulated to be soft to the touch. As the material is soft, care must be taken to maximize the useful life. There are three areas that should be avoided, as all can cause premature tearing of the Chest Tissue Flap:



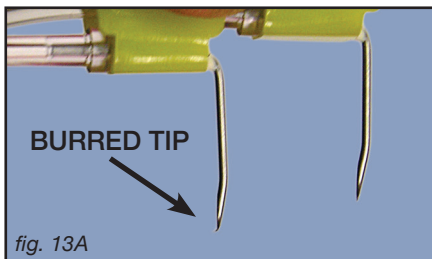
Do not pull the Chest Tissue Flap back to view the placement of the needle in the port septum (see fig. 10).



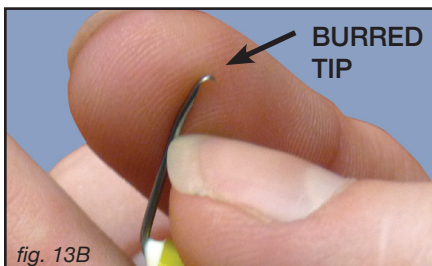
Do not press fingernails into the tissue flap when palpating the port (see fig. 11).



Do not “rock” the access needle back and forth to confirm placement (see fig. 12).



When accessing through the flap, a 22g Huber-type needle is best. Be sure to check the needle tip periodically for burrs. Use of burred needles will reduce the life of the tissue flap and the port septum. In some cases pulling a burred Huber-type needle between the fingernails will straighten out a burr and permit the re-use of that needle (see fig. 13A & 13B).



Should you need additional Huber practice needles you can order:

**5025** 3/4" 20G right angle Huber needle  
8" extension set 1 dozen.

**5026** 1" 20G right angle Huber needle  
8" extension set 1 dozen.



The entire area of the tissue flap can be used for accessing. Just move the port to the desired location and place the Chest Tissue Flap over it (see fig. 14). See text under **Difficult Accessing Insert 0430** to learn how to extend catheter length to move port (see fig. 18).



Cleaning of the Chest Tissue Flap or Difficult Accessing Inserts is best done by wiping with an alcohol-wetted, non-linting cloth. The part should be permitted to air dry and then powdered with the cornstarch talc supplied. Any excess talc can be removed with a dry cloth. If at any time the skin flap becomes tacky to the touch, talc should be applied (see fig. 15).

## Difficult Accessing Inserts

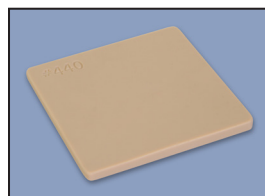
The model is supplied with three different Difficult Accessing Inserts. These are used alone or in conjunction to simulate various difficult accessing scenarios. All the inserts have the part numbers on them for easy identification.



**0420** Difficult accessing insert simulates a “wandering” port



**0430** Difficult accessing insert simulates “tipping” port



**0440** Difficult accessing insert simulates a deeply placed port



**DIFFICULT ACCESSING INSERT 0420** for simulation of a “wandering” or “floating” port. Remove the 0430 insert and replace with the 0420. The #420 should be located in the upper left hand corner. For best results in simulating a wandering or floating port, place a small amount of K-Y or other lubricating jelly under and on top of your port. This will vary by the type of port used (see fig. 16). Place the port in the center of the depressed area and reattach the Chest Tissue Flap. When you palpate the port, it will move around.



fig. 17A



fig. 17B

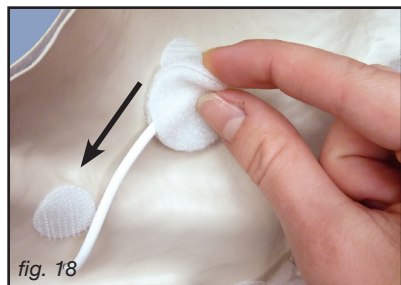


fig. 18



fig. 19

**DIFFICULT ACCESSING INSERT 0430** for simulation of a normal or “tipping” port. This insert is in place, under the port, when you receive your model. The #430 should be located in the upper left side of the insert, as you look at the model (see fig. 17A). The port can be placed on the upper portion of the insert to simulate a normal placement for accessing (see fig. 17A). The lower portion of this insert has a recessed area, where the port can be placed to simulate a “tipped” port (see fig. 17B). This will vary with the type of port used.

If you find you need additional catheter length to place the port in this area, look on the backside of the torso where the port catheter comes through from the front side. There is Velcro on the catheter tubing to secure the catheter to the torso. By pulling the Velcro off the upper placement and moving it to the lower attachment position, you will get an additional length of tubing (see fig. 18).

**DIFFICULT ACCESSING INSERT 0440** for simulation of a “deeply placed” port. The #440 will be located in one of the corners. This piece is placed over the top of the port, with the Chest Tissue Flap then placed over the 0440. Best results using the 0440 insert are experienced when the 0420 insert is used in the recessed area under the port (see fig. 19).

## Basic Cleaning & Maintenance

### ***For the Chest Tissue Flap:***

- If flap gets tacky, use the provided baby powder and cover the flap. Then wipe off any excess with a clean dry cloth.
- If the flap is dirty, you can use soap and water or isopropyl alcohol to clean and let completely dry.
  - Once the flap is dry, use the provided baby powder and cover the flap. Then wipe off any excess with a clean dry cloth.

### ***For the Body and Arm:***

- It is best to remove any dressing/bandages after use and do not leave on overnight.
- If there is adhesive residue or other debris on the arm or body, it can be cleaned in several ways:
  - Soap and water
  - Isopropyl alcohol
  - If the adhesive is really stuck, use Goo Gone or another similar adhesive remover and soak a paper towel/towel with it. Place towel on adhesive for 5+ minutes, rub clean, and repeat if necessary until all adhesive is removed. Then clean the area well with Isopropyl alcohol to remove the oily residue left behind.
- If dressing/bandages are sticking the arm or body too aggressively, apply a general – purpose auto wax per the instructions to the model. (*Do not apply auto wax to the chest tissue flap*).

### ***For Storage:***

- Drain all lines after each use and cap or use pinch clamp on blood bags.
- If model will not be used for 4 weeks or longer it would be best to flush the lines with saline, distilled water, or a water and alcohol mix to prevent mold growth. After flushing, leave end of the line open to dry. You can also do the same on the blood bags and refill when next used.

If any parts are missing or broken, they can be replaced. Please contact us if you have any questions or need assistance.

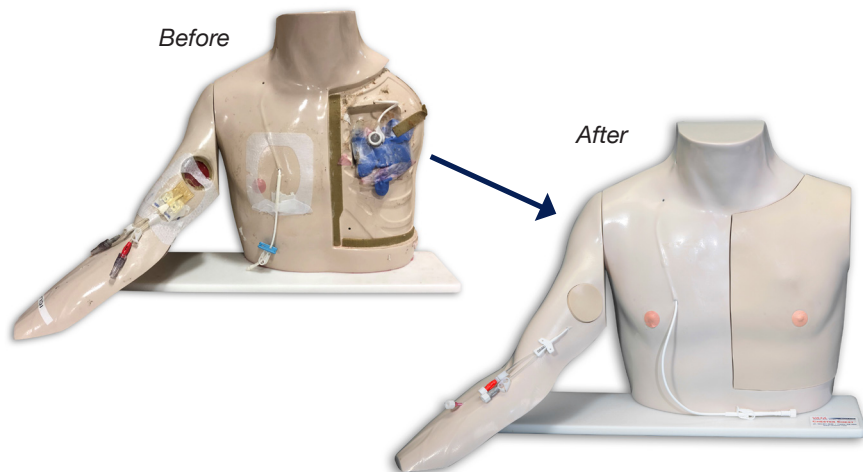
## Chester Chest™ – Refurbishing Service

The purchase of training models is a significant financial investment. Realizing this, **VATA** is proud to offer a refurbishing service to bring your well-used **Chester Chest** back to life for about half the cost of a new model!

### How It Works:

- Contact **VATA** to receive your Return of Goods Authorization (RGA) number and ship your Chester to our facility.
- Upon receipt, your **Chester Chest** will be evaluated for needed parts and repairs. We will create an estimate for your approval and prepayment is required prior to starting the refurbishment process.
- Refurbishment takes two to five business days to complete after we have received your approval and prepayment for the work to be completed.
- Return shipping is typically around 5 business days (the cost of shipping will be included in the estimate).

**To begin the process**, please call 503-651-5050 or email [info@vatainc.com](mailto:info@vatainc.com) to receive your Return of Goods Authorization (RGA) number.



\*model shown with port-access arm

## Chester Chest™ – Models & Parts

The following items are available for purchase at [www.vatainc.com](http://www.vatainc.com).

All parts on this model are available individually.

### Chester Chest™

- 2400 **Chester Chest™** with Standard Arm, lightly pigmented
- 2402 **Chester Chest™** with Standard Arm, darkly pigmented
- 2410 **Chester Chest™** with Port Access Arm, lightly pigmented
- 2412 **Chester Chest™** with Port Access Arm, darkly pigmented

### Accessories & Parts

- 0401 **Optional** Carrying Case for **Chester Chest™**
- 0404 Chest Tissue Flap Replacement, darkly pigmented for 2402/2412
- 0405 Chest Tissue Flap Replacement, lightly pigmented for 2400/2410
- 0406 Practice Port (IVAD)
- 0407 Tunneled Central Venous Catheter 9FR (CVC)
- 0408 Dual PICC Catheter 5 FR (requires part 0418 for attachment)
- 0409 **Optional** Tunneled Dual Lumen Catheter 9.6FR
- 0410 **Optional** Triple Lumen Catheter (requires part 0454 for attachment)
- 0418 6 FR Universal Catheter Connector
- 0442 Replacement Skin Flap to cover peripheral arm port, lightly pigmented
- 0443 Replacement Skin Flap to cover peripheral arm port, darkly pigmented
- 0446 Clear Tubing for Chester Arm
- 0450 Three-way Parallel Tubing Set
- 0451 Simulated Blood Reservoir Bag for Chester torso
- 0453 Simulated Blood Reservoir Bag for Chester arm
- 0454 9.6 FR Universal Catheter Connector
- 2386 Replacement Port Access Arm for Chester, lightly pigmented
- 2387 Replacement Port Access Arm for Chester, darkly pigmented
- 2388 Replacement Standard Arm for Chester, lightly pigmented
- 2389 Replacement Standard Arm for Chester, darkly pigmented
- 1491 Simulated Blood, One Quart – New, Stain Resistant
- 1494 Simulated Blood, One Gallon – New, Stain Resistant
- 5025 ¾" 20G right angle Huber needle (set of 1 dozen)
- 5026 1" 20G right angle Huber needle (set of 1 dozen)

