CENTRAL VENOUS CANNULATION SIMULATOR

LF1087U

INSTRUCTION MANUAL
Mix the blood solution according to the instructions on the bottle. Once mixed, pour contents into the enema bag, seal the top of the bag, and hang on an IV stand (not provided). The bottom of the enema bag should not be more than 12” to 14” above the simulator.

**Use of the Simulator**

This booklet does not propose to outline a particular procedure to be followed. Rather, it is recommended that a procedural manual and the instructor’s directions be followed. This will eliminate confusion and best serve the individual instructor and curriculum.

**Care of Simulator**

1. Cleaning is recommended after each use. The torso and muscle-bone section may be washed in lukewarm water and mild soap. Use REN Cleaner (W09919U) to remove stubborn stains from the simulator. Simply spray soiled area and wipe clean with a soft cloth or paper towel.

2. Repowder simulator before each use.

**Cautions**

1. DO NOT leave the tubes in the simulator for storage purposes. Keep tubing away from the simulator. Insert the 22-gauge needle into the tubing of the subclavian very close to the knot. When the air is released completely, simulated blood will flow to the knot. When the air is released completely, simulated blood will flow to the knot. When the air is released completely, simulated blood will flow to the knot. When the air is released completely, simulated blood will flow to the knot. When the air is released completely, simulated blood will flow to the knot.

2. DO NOT mark on the simulator in any way.

3. DO NOT allow any newsprint or plastic to come into contact with the simulator. Ink, of any type, will cause indelible stains.

4. Solvents or corrosive materials will damage the simulator.

**Supplies/Replacement Parts for the Life/form® Central Venous Cannulation Simulator**

- LF01078U Replacement Kit. Includes skin and veins.
- LF00845U Quart of Life/form® Venous Blood
- LF00846U Gallon of Life/form® Venous Blood
- LF09919U REN Cleaner

**Project Consultant:**

The design and assembly of this simulator would not have been possible without the cooperation and expertise furnished to us by:

- Forrest M. Gridley, M.A., P.A.-C.
- Division of Urology, Department of Surgery
- Physician Assistant Program
- Emergency Medical Services Program
- University of Wisconsin-Madison

**About the Simulator…**

The Life/form® Central Venous Cannulation Simulator is anatomically and functionally correct; it is designed to instruct medical personnel in the practice of central venous cannulation. The simulator incorporates superficial anatomical detail and functional accuracy to simulate the clinical experience.

The composition of this simulator approximates the human body in density and feels as closely as is possible. NASCO has used the name Life/form® for approximately 17 years. The soft plastic we use in our training simulators sets us apart from others who use a harder material.

In addition to being very lifelike, this simulator is very easy to maintain. The construction is as simple as possible and allows for ease of maintenance and fast replacement of parts. All features incorporated into this simulator have been carefully checked to be certain this training aid is the ultimate available anywhere.

**List of Components**

- Main Torso
- Muscle Bone Assembly
- Skin
- Two Enema Bags
- 22-gauge Needle
- Baby Powder
- One Qt. Life/form® Venous Blood
- Six 20” Subclavian Tubes
- Six 20” Internal Jugular Veins
- Six 34” External Jugular Veins
- One Carotid Artery Tube
- One “Y” Connector
- One Straight Connector
- 12 Strapping Ties
- Instruction Manual
- Carrying/Storage Case

**General Information about the Simulator**

Procedures which may be performed:

A. Subclavian Vein Approaches
   1. Infraclavicular
   2. Supraclavicular

B. Internal Jugular Vein Approaches
   1. Anterior
   2. Central
   3. Posterior

C. External Jugular Approach
   The external jugular vein portion of the simulator can be set up alone in the simulator or in conjunction with the other vein systems if desired.

In addition, the Central Venous Cannulation Simulator offers other features which extend the application of this instructional aid to include demonstration of anatomical landmarks for:

1. Pericardiocentesis
2. Thoracentesis
Prepping the Simulator
for Use

Inspect the contents to be certain all necessary components are included (see List of Components).

Using the baby powder, generously powder the “torso” portion of the simulator.

Following this, powder the muscle and bone insert.

Now, with the muscle and bone insert lying upside down (sternum touching table), locate the subclavian vein tubing.

This tubing is the largest diameter tube supplied. Note that the end of this tube is knotted. This tube is placed into the simulator with the knotted end inside the muscle and bone insert and is the first tube positioned.

Next, position the internal jugular vein tubing (this tube is short and small in diameter) over the top of the subclavian vein tubing, keeping the knot inside the muscle and bone insert. Both the subclavian and internal jugular fit into “grooves” or “channels”.

Finally, position the external jugular vein in its appropriate channel starting with the knotted end at the lower edge. Run the vein along the outside edge and through the hole to the front side of the insert. Continue following the vein channel on the front side.

Making sure all tubes are properly positioned and held in place, “invert” the muscle and bone section and position this in the torso. Place the open end of the external jugular vein through the hole in the jaw of the torso piece.

Pull the ends of all three tubes through the “slit” in the skin. This is located on the simulator’s left shoulder. Be sure all tubing is still in the channels.

Now attach the two short pieces of tubing to the top of the “Y” connector. Attach the larger of the two tubes to the “Y” end with the latex band and the smaller tube to the other end. After attaching the subclavian and the internal jugular to the “Y” connector, apply the strapping ties (provided) to insure a tight seal of the tubing to the connector. These ties will remain in position until the tubing is changed. To remove them, simply cut them off. Attach the enema bag to the bottom of the “Y”.

The external jugular vein is set up with its own enema bag. Connect the bag to the vein by using the straight connector. Do not permanently attach the vein to the connector as it will be disconnected after each use for easier installation later. Upon removal, bring the vein out through the top of the simulator.

Position the carotid pulse tubing into the external “groove” of the muscle-bone section.

Apply the skin to the torso, beginning at the neck. At this point, feed the external jugular vein through the hole in the skin piece.
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To remove all tubing, simply cut the strapping ties.
Use of the Simulator

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Care of Simulator

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2. Repowder simulator before each use.

Cautions

1. DO NOT leave the tubes in the simulator for storage purposes. Keep tubing away from the simulator torso, skin, and muscle-bone insert. Failure to comply with this warning will result in damage which we cannot cover under warranty.
2. DO NOT mark on the simulator in any way.
3. DO NOT allow any newsprint or plastic to come into contact with the simulator. Ink, of any type, will cause indelible stains.
4. Solvents or corrosive materials will damage the simulator.

Supplies/Replacement Parts for the Life/form® Central Venous Cannulation Simulator

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- Pericardiocentesis
- Thoracentesis
Other Available **Life/form. Simulators**

- LF00698U Adult Injectable Arm (White)
- LF00856U Female Catheterization
- LF00901U Prostate Examination
- LF00906U Ostomy Care
- LF00929U Surgical Bandaging
- LF00957U Enema Administration
- LF00958U Pediatric Injectable Arm
- LF00961U Intramuscular Injection
- LF00984U Breast Examination
- LF00995U Arterial Puncture Arm
- LF00997U Adult Injectable Arm (Black)
- LF00999U Pediatric Injectable Head
- LF01008U Intradermal Injection Arm
- LF01012U Heart Catheterization (TPN)
- LF01019U Ear Examination
- LF01020U Supplementary Ear Set
- LF01025U Male Cath-Ed I
- LF01026U Female Cath-Ed II
- LF01027U Male Cath-Ed I
- LF01028U Female Cath-Ed II
- LF01036U Spinal Injection
- LF01053U Cross-Sectional Anatomy, Torso, Head
- LF01054U Cross-Sectional Anatomy, Head
- LF01062U Pelvic, Normal & Abnormal
- LF01063U Stump Bandaging, Upper
- LF01064U Stump Bandaging, Lower
- LF01069U Cervical Effacement
- LF01070U Birthing Station
- LF01082U Cricothyrotomy
- LF01083U Tracheostomy Care
- LF01084U Sigmoidoscopic Examination
- LF01087U Central Venous Cannulation
- LF01095U Blood Pressure Arm
- LF01108U Intraosseous Infusion Simulator
- LF01142U Auscultation Trainer
- LF01162U Venatech IV Trainer
- LF03000U CARLENE® Series
- LF03601U Adult Airway Management Trainer
- LF03602U Adult Airway Management on Manikin
- LF03603U Adult Airway Management Head Only
- LF03609U Child Airway Management Trainer
- LF03610U Child Airway Management Trainer Head Only
- LF03611U Child Defibrillation Chest Skin
- LF03612U Child IV Arm
- LF03613U Child Blood Pressure Arm
- LF03614U Child Intraosseous Infusion/Femoral Access Leg Only
- LF03615U Complete Child CRiSiS™ Update Kit
- LF03616U Child CRiSiS™ Manikin
- LF03617U Deluxe Child CRiSiS™ Manikin with Arrhythmia Tutor
- LF03620U PALS Update Kit
- LF03621U Infant Airway Management Trainer Head Only
- LF03622U Intraosseous Infusion Right Leg
- LF03623U Infant Airway Management Trainer
- LF03626U Child Femoral Access Injection Pad Replacement
- LF03632U Child Intraosseous Infusion/ Femoral Access Leg on a Stand
- LF03633U Child Airway Management Trainer with Torso
- LF03693U Basic Buddy CPR Manikin
- LF03695U Basic Buddy CPR Manikin
- LF03699U Basic Buddy CPR Manikin
- LF03720U Baby Buddy Infant CPR Manikin
- LF03953U CRiSiS™ Manikin
- LF03955U Deluxe CRiSiS™ Manikin
- LF04001U GERI™ Nursing Manikin
- LF04020U KERI™ Nursing Manikin
- LF04021U KERI™ Basic Manikin
- LF04022U KERI™ Advanced Manikin
- LF04030U GERI™ Advanced Manikin
- LF04040U GERI™ Basic Manikin

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**LF1087U INSTRUCTION MANUAL**