Hemodialysis Practice Arm
LF01037U
Instruction Manual

WARNING: Product contains dry natural rubber.
Do not remove film from tubing!

Products by Nasco
About the Simulator

This Life/form® Hemodialysis Practice Arm Simulator duplicates a human arm. This special simulator contains an arteriovenous fistula. All aspects of the simulator are as lifelike in every detail as modern plastics technology allows. Treatment of the simulator must also duplicate that of a human arm. Rough handling will lead to damage.

This simulator is designed for student and patient teaching/demonstration. Its importance is in facilitating the teaching of techniques of easy access to the arm’s blood supply for home dialysis.

It is possible to replace the skin and veins when it becomes necessary. The skin can be easily removed and new veins can be easily reinserted, providing you with a new arm. The life of the restored arm will be prolonged by utilizing only the size needles indicated in the instructions. The Skin and Vein Replacement Kits are available (see list of supplies).

Internal Structure

Internally, the vascular structure (rubber tubing) for the arteriovenous fistula begins in the inner aspect of the upper arm, travels down the arm, makes a loop in the inner aspect of the lower forearm, and then returns to the upper arm.

List of Components

- 2 IV bags
- Small towel
- Container of Life/form® Hemodialysis Arterial Blood (LF01048U)
- 10 cc syringe with needle
- 3 cc syringe with needle
- Extra needle

Preparing the Artificial Arterial Blood and Vascular System

1. Add 473 cc of distilled water to the container labeled Hemodialysis Arterial Blood.
2. Pour the Hemodialysis Arterial Blood into one of the IV bags. Hang the bag no more than 18” above the level of the arm.
3. Attach the end of the IV bag to the arm tubing (the end without the pinch clamp).
4. With the other tubing in an appropriate receptacle, open the clamp on the IV tubing and the pinch clamp, and “flush” the system with the Hemodialysis Arterial Blood. Make sure all air bubbles have been removed from the system.
5. Once the “blood” has passed through the entire system, use the pinch clamp to close off the blood outlet tubing. Make sure the clamp on the IV tubing is open at this time. The system is now full of arterial “blood” and pressurized.
6. The arm is now ready for demonstration and/or practice of easy access to the arterial system. The standard procedure for venipuncture can be utilized at this point. Insert only small diameter needles (20-25 gauge). This will prolong the life of the skin and veins. (In a patient, needles ranging from 15-17 gauge would be used).
Care of Simulator

After each class, disconnect the “blood” and flush the system. Unclamp the pinch clamp at the end of the tubing and remove IV sets from the arm. Use tap water to flush the system. Wash outside of arm with mild soap and water. Excess water may be removed from the fistula by raising the hand, lowering the upper arm, and draining it into a receptacle. Always drain the excess water from vascular system before storing.

Normal soil accumulated on the surface of the simulator can be removed with mild soap and lukewarm water. Use Nasco Cleaner (LF09919U) to remove stubborn stains from the simulator. Simply spray soiled area and wipe clean with a soft cloth or paper towels.

Solvents or corrosive materials will damage the simulator. Never place on any kind of printed paper or plastic. These materials will transfer indelible stains. Ball-point pens will also make indelible stains.

Skin Replacement

A. Remove Skin
   1. Untie lace from base of arm.
   2. Lubricate outside of skin with Life/form® Lubricant Kit (LF00985U).

B. Install New Tubing
   1. Place tubing in channel of core.

C. Lubricate New Skin
   1. Pour lubricant into skin and swirl around so it covers all surfaces.

D. Slide Skin Over Hand of Core
   1. Make certain the palm of the hand and core are in the same position.

E. Grasp the Skin with Both Hands and Slide Over the Core Until the Fingers of Core Fit Into the Finger Holes

F. Work Fingers in Place

3. Peel off skin carefully, turning inside out.
4. Remove all tubing.
G. Check Tubing Position

1. If tubing slipped from channel, it can usually be pushed back into place by working it with the fingertips from outside of skin.

Cautions

1. The Life/form® Hemodialysis Arterial Blood is specially formulated to be compatible with the special veins and plastics used in manufacturing the arm.

2. DO NOT use dull or burred needles, as these will cause leaks in the system.

3. DO NOT allow “blood” to dry on simulator or it may stain arm.

4. Use only 500 cc of infusion fluid, as a larger amount will also increase the pressure of the venous system, resulting in leaks.

5. DO NOT clean the simulator with solvents or corrosive materials, as they will damage it.

6. DO NOT use for subcutaneous or intramuscular injections. The Life/form® Intradermal Injection Simulator (LF01008U) and Adult Venipuncture and Injection Training Arm (LF00698U and LF00997U) are specially designed for this.

7. The Vein Tubing Sealant Kit (LF01099U) will extend the useful life of the tubing.

Supplies/Replacement Parts for Hemodialysis Practice Arm

- LF01048U Life/form® Hemodialysis Arterial Blood — 1 Quart
- LF01099U Vein Tubing Sealant Kit
- LF01040U Skin and Vein Replacement Kit
- LF09919U Nasco Cleaner
- LF00985U Life/form® Lubricant Kit
Other Available Life/form Simulators

LF00698U Adult Injectable Arm (White)
LF00855U Male Catheterization
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 Pediatric Injectable Head
LF01005U First Aid Arm
LF01008U Intradermal Injection Arm
LF01012U Heart Catheterization (TPN)
LF01019U Ear Examination
LF01027U Peritoneal Dialysis
LF01028U Suture Practice Arm
LF01034U Suture Practice Leg
LF01036U Spinal Injection
LF01037U Hemodialysis Practice Arm
LF01038U Episiotomy Suturing Set
LF01042U Suture Kit
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 Infant Intravenous Infusion
LF01121U Advanced IV Arm
LF01131U Venipuncture and Injection Arm
LF01139U Advanced IV Hand
LF01142U Auscultation Trainer
LF01143U Testicular Exam
LF01152U Male & Female Catheter
LF01155U Advanced CPR Dog
LF01162U Venatech IV Trainer
LF01174U NG Tube & Trach Skills

LF01184U Venatech IM & Sub Q
LF01193U Special Needs Baby
LF03000U CPARLENE® Series
LF03601U Adult Airway Management Trainer with Stand
LF03602U Adult Airway Management Manikin
LF03609U Child Airway Management Trainer with Stand
LF03616U Child CRiSiS™ Manikin
LF03617U Deluxe Child CRiSiS™ Manikin
LF03620U Advanced CPR Dog
LF03623U Infant Airway Management Trainer with Stand
LF03632U Child Intravenous Infusion/Femoral Access Leg on a Stand
LF03633U Child Airway Management Trainer Torso
LF03693U Basic Buddy® CPR Manikin
LF03699U “Airway Larry” Airway Management Trainer
LF03709U Infant CRiSiS™ Manikin
LF03720U Baby Buddy™ Infant CPR Manikin
LF03750U Fat Old Fred
LF03760U Airway Management/Cricoid Pressure Trainer
LF03770U Chest Tube
LF03953U CRiSiS™ Manikin, Complete
LF03955U Deluxe CRiSiS™ Manikin
LF03956U Deluxe “Plus” CRiSiS™ Manikin
LF03965U Adult CRiSiS™ Auscultation Manikin
LF03966U Adult CRiSiS™ Auscultation Manikin with ECG Simulator
LF04000U GERI™/KERI™ Manikin Series
LF04200U Adult Sternal Intravenous Infusion
LF06001U CPR Prompt® Adult/Child Manikin
LF06012U CPR Prompt® Infant Manikin
LF06200U CPR Prompt® Keychain Rescue Aid
LF06204U CPR Prompt® Rescue and Practice Aid