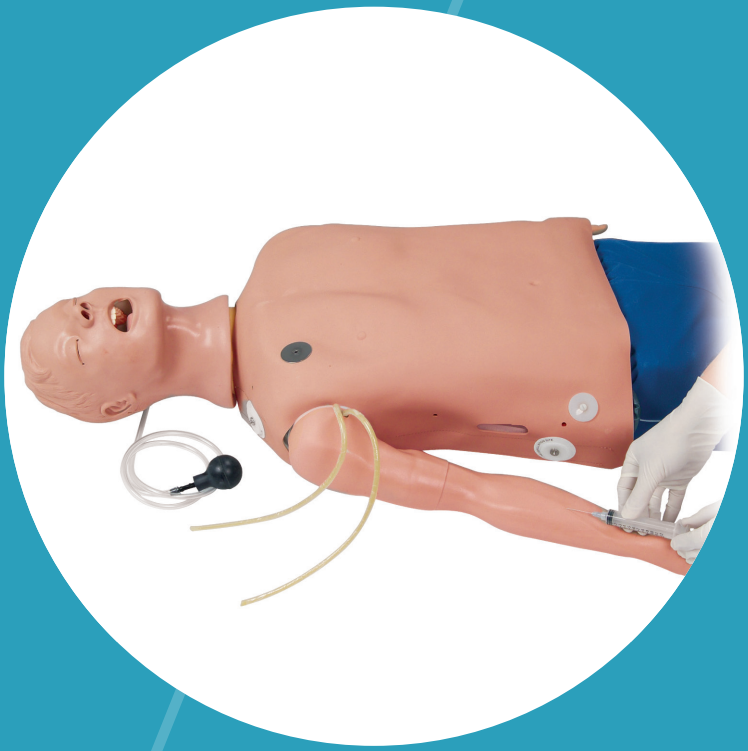
INSTRUCTION MANUAL

# CPARLENE®
# Injectable Training Arm

LF03214



**5 Year Warranty**

Nasco HEALTHCARE

# About the Simulator

*Figure 1*

The CPARLENE® Injectable Training Arm connects to the right arm socket of the CPARLENE® manikin. ***(See figure 1.)***

Although this arm will provide years of trouble-free usage, the skin and veins can be readily replaced when needed. The life of the replaceable skin and veins will be prolonged by utilizing smaller needle sizes (20- to 25-gauge). Relacement skin and Vein Kits are available through Nasco (see page 4 for list of supplies).

**Internal Structure**

Internally, the vascular structure (rubber tubing) begins at the shoulder and continues under the arm, crosses the antecubital fossa forearm, makes a loop in the back of the hand, and then returns to the underarm. This venous system is constructed of special plastic tubing, with the lumen being the approximate size of a human vein. ***(See figure 2.)*** This vascular structure has inlet tubing and outlet tubing at the shoulder. It is via these tubes that synthetic blood is injected and removed, thus allowing practice in the techniques of blood drawing and starting intravenous infusions.

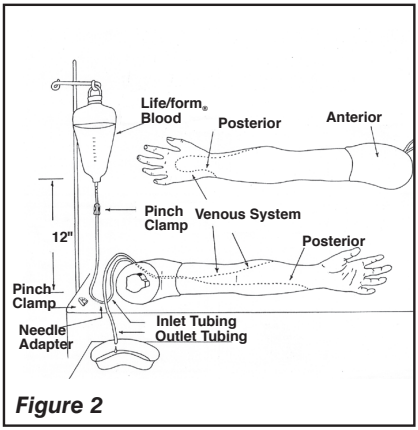



*Figure 2*

**A. Preparing the Synthetic Blood**

1. Fill the pint bottle containing synthetic blood concentrate with distilled water. ***(See figure 3.)***


*Figure 3*

# General Instruction for Use

2. Pour the synthetic blood into one of the bags. ***(See figure 4.)***


***Figure 4***

3. Be sure the clamp on the IV tubing is closed, and hang the bag no more than 18" above the level of the arm.
4. Attach the end of the IV tubing to one of the shoulder tubings.
5. With the other shoulder tubing in a basin or sink, gradually "flush" the vascular system with synthetic blood by slowly opening the clamp. Allow some "blood" to pass through the system until the air bubbles have been eliminated.
6. Once the system is filled, use one of the pinch clamps to close off the blood outlet tubing. The venous system is now full of "blood" and pressurized. Be sure to leave the clamp on the IV tubing open.
7. After filling the venous system according to instructions, the arm is now ready for you to practice drawing blood. "Blood" can be drawn anywhere along the pathway of the vein. Distilled water, rather than alcohol, should be used to prepare the sites. Synthetic blood will actually be aspirated once the vein is properly punctured.
8. Small diameter needles (20- to 25-gauge) should be used.

**B. Preparing the Arm for Intravenous Infusions**

1. Close the clamp at the end of IV bag A tube, then fill with distilled water 18" above the arm. ***(See figure 5.)***
2. Appropriate intravenous infusion needles (or butterflies) should

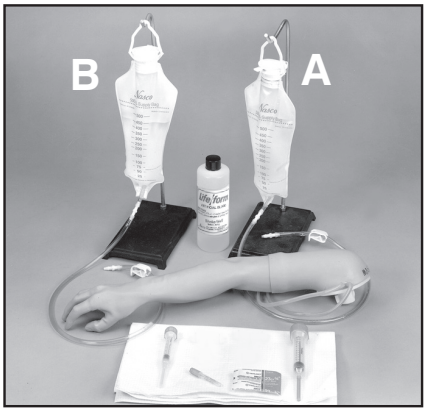



***Figure 5***

# General Instruction for Use

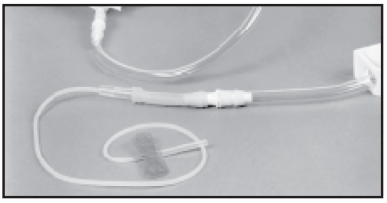


*Figure 6*

be used, and distilled water is recommended as an infusion.

3. IVs can be started anywhere along the pathway of the simulated vein. Cleanse the sites with distilled water only.
4. Attach the adapter end of the IV tubing into one of the shoulder tubing ends.
5. Place the other shoulder tubing end in a basin or jar, and "flush the vascular system by opening the clamp. Allow infusion (water) to pass through the system until air bubbles are eliminated. Shut off the flow with a pinch clamp. The venous system is now full and pressurized.
6. Insert an IV needle or butterfly in the vein. "Flashback" will indicate proper insertion.
7. Close the clamp on IV bag A tube and remove pinch clamp from shoulder tubing.
8. Attach latex needle adapter to IV needle and IV tubing. ***(See figure 6.)*** Proof of proper procedure will then be evidenced by the flow of infusion fluid from IV bag B. Control flow rate with clamp on IV set B. This fluid can be used over. If more realistic experience is desired with "blood flashback" instead of water when inserting butterfly into lumen of vein, use next procedure C.

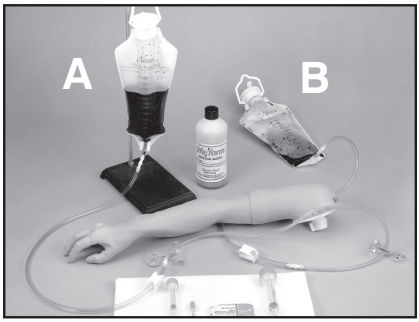



*Figure 7*

**C. Recommended Procedure for Simultaneous IV Infusions and Drawing Blood**

Using two IV bag kits, hook up and install with IV bag A and IV bag B. Remove air vent from bag B. ***(See figure 7.)***

1. Begin with synthetic blood in IV bag A. Open clamp on both A and B to pressurize system. "Flush" system by allowing "blood" to flow into container B until bubbles in tubing disappear, then regulate blood flow from bag A (using clamp). System is now full of "blood" and pressurized. "Blood" can now be drawn anywhere along the pathway of the vein.
2. Intravenous infusion — insert butterfly into lumen of vein. Proof of correct insertion is evidenced by flashback of "blood." Insert end of IV tubing into butterfly. Adjust flow to desirable rate with clamp. With this arrangement IV bag B, when full, may be easily switched with A.

**Note:** Always regulate flow of "blood" from the raised bag, and

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open the other clamp.

D. Intramuscular Injections
The procedure for administering intramuscular injections can be practiced in the area of the deltoid. Prep the site with distilled water only. These injections can be done utilizing the appropriate needle and syringe. 1/2 cc of distilled water may be injected, however, we recommend utilizing air as injectant since the distilled water cannot be drained, but must evaporate from the arm. Synthetic blood must NEVER be used for injections.

**Troubleshooting**

If "blood" cannot be aspirated during the blood drawing procedure:

1. The clamp is not opened.
2. There are kinks in the tubing of IV sets.
3. Tubing has been pinched shut by constant pressure of pinch clamps. Lumen remains pinched occasionally even if pinch clamps are loosened. Slide clamp to new position and, with fingers, manipulate tubing at pinched site to restore lumen. In heavy use, slide clamp to new position on tubing from time to time to prevent the "permanent pinch" caused by constant clamp pressure. Replace IV kit.
4. If these measures do not unclog the venous system, try using a large 50 cc syringe to force fluid through the tubing.
5. If none of these measures work, peel back the skin (soap up arm and skin generously with Ivory® liquid detergent) of the arm to the knuckles (do not remove from fingers), and examine all tubing for possible kinks. Soap up arm and skin generously with Ivory® liquid detergent, and return skin over arm.

**Care of Simulator**

After each class use, disconnect "blood" and flush the venous system. Return synthetic blood to the storage bottle. Remove pinch clamps and IV sets from arm.
Use tap water to flush the venous system and wash the outside of the arm with Ivory® liquid detergent and water. Excess water may be removed from the arm by raising the hand, lowering the shoulder, and draining it into a sink or basin. Always remove the pinch clamps from shoulder tubing and drain excess water from veins before storing.

**Cautions**

1. This synthetic blood is specially formulated to be compatible with the self-sealing veins and plastics used in manufacturing the arm.
2. **NEVER** use synthetic blood for intramuscular injection.
3. **DO NOT** use dull or burred needles, as these will cause leaks in the system. Burred needles will cause permanent damage.

# General Instruction for Use

Use smaller needles (20- to 25-gauge).

4. **DO NOT** allow “blood” to dry on the simulator — it may stain the skin.
5. Use only 500 cc of infusion fluid, as a larger amount will also increase the pressure of the venous system, resulting in leaks.
6. **DO NOT** clean the simulator with solvents or corrosive material, as they will damage it.
7. **DO NOT** use for subcutaneous injection. Nasco’s Intradermal Injection Simulator (LF01008U) is specially designed for intradermal injection training and practice.
8. Nasco Vein Tubing Sealant Kit (LF01099U) will extend the life of the tubing.

# Supplies/Replacement Parts

| | |
|---|---|
| **LF00845** | Life/form® Venous Blood, 1 quart |
| **LF00846** | Life/form® Venous Blood, 1 gallon |
| **LF01099** | Vein Tubing Sealant Kit |
| **LF03215** | Skin and Vein Replacement Kit |
| **LF09199** | Nasco Cleaner |

# Other Available Simulators

| | |
|---|---|
| **LF00698** | Adult Injectable Arm (Light) |
| **LF00855** | Male Catheterization |
| **LF00856** | Female Catheterization |
| **LF00901** | Prostate Examination |
| **LF00906** | Ostomy Care |
| **LF00929** | Surgical Bandaging |
| **LF00957** | Enema Administration |
| **LF00958** | Pediatric Injectable Arm |
| **LF00961** | Intramuscular Injection |
| **LF00984** | Breast Examination |
| **LF00995** | Arterial Puncture Arm |
| **LF00999** | Pediatric Injectable Head |
| **LF01005** | First Aid Arm |
| **LF01008** | Intradermal Injection Arm |
| **LF01012** | Heart Catheterization (TPN) |
| **LF01019** | Ear Examination |
| **LF01027** | Peritoneal Dialysis |
| **LF01028** | Suture Practice Arm |
| **LF01034** | Suture Practice Leg |
| **LF01036** | Spinal Injection |
| **LF01037** | Hemodialysis Practice Arm |
| **LF01038** | Episiotomy Suturing Set |
| **LF01042** | Suture Kit |
| **LF01062** | Pelvic, Normal & Abnormal |
| **LF01063** | Stump Bandaging, Upper |
| **LF01064** | Stump Bandaging, Lower |
| **LF01069** | Cervical Effacement |
| **LF01070** | Birthing Station |
| **LF01082** | Cricothyrotomy |
| **LF01083** | Tracheostomy Care |
| **LF01084** | Sigmoidoscopic Examination |
| **LF01087** | Central Venous Cannulation |
| **LF01095** | Blood Pressure Arm |
| **LF01108** | Infant Intraosseous Infusion |
| **LF01121** | Advanced IV Arm |
| **LF01131** | Venipuncture and Injection Arm |
| **LF01139** | Advanced IV Hand |
| **LF01142** | Auscultation Trainer |
| **LF01143** | Testicular Exam |
| **LF01152** | Male & Female Catheter |
| **LF01155** | Advanced CPR Dog |
| **LF01162** | Venatech IV Trainer |
| **LF01174** | NG Tube & Trach Skills |
| **LF01184** | Venatech IM & Sub Q |
| **LF01193** | Special Needs Baby |
| **LF03000** | CPARLENE® Series |
| **LF03601** | Adult Airway Management Trainer with Stand |
| **LF03602** | Adult Airway Management Manikin |
| **LF03609** | Child Airway Management Trainer with Stand |
| **LF03616** | Child CRiSis™ Manikin |
| **LF03617** | Deluxe Child CRiSis™ Manikin with Arrhythmia Tutor |
| **LF03620** | PALS Update Kit |
| **LF03623** | Infant Airway Management Trainer with Stand |
| **LF03632** | Child Intraosseous Infusion/ Femoral Access Leg on a Stand |
| **LF03633** | Child Airway Management Trainer Torso |
| **LF03693** | Basic Buddy® CPR Manikin |
| **LF03699** | "Airway Larry" Airway Management Trainer |
| **LF03709** | Infant CRiSis™ Manikin |
| **LF03720** | Baby Buddy™ Infant CPR Manikin |
| **LF03750** | Bariatric CPR Manikin |
| **LF03770** | Chest Tube |
| **LF03953** | CRiSis™ Manikin, Complete |
| **LF03955** | Deluxe CRiSis™ Manikin |
| **LF03956** | Deluxe "Plus" CRiSis™ Manikin |
| **LF03965** | Adult CRiSis™ Auscultation Manikin |
| **LF03966** | Adult CRiSis™ Auscultation Manikin with ECG Simulator |
| **LF04000** | GERi™/KERi™ Manikin Series |
| **LF04200** | Adult Sternal Intraosseous Infusion |
| **LF06001** | CPR Prompt® Adult/Child Manikin |
| **LF06012** | CPR Prompt® Infant Manikin |
| **LF06200** | CPR Prompt® Keychain Rescue Aid |
| **LF06204** | CPR Prompt® Rescue and Practice Aid |

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