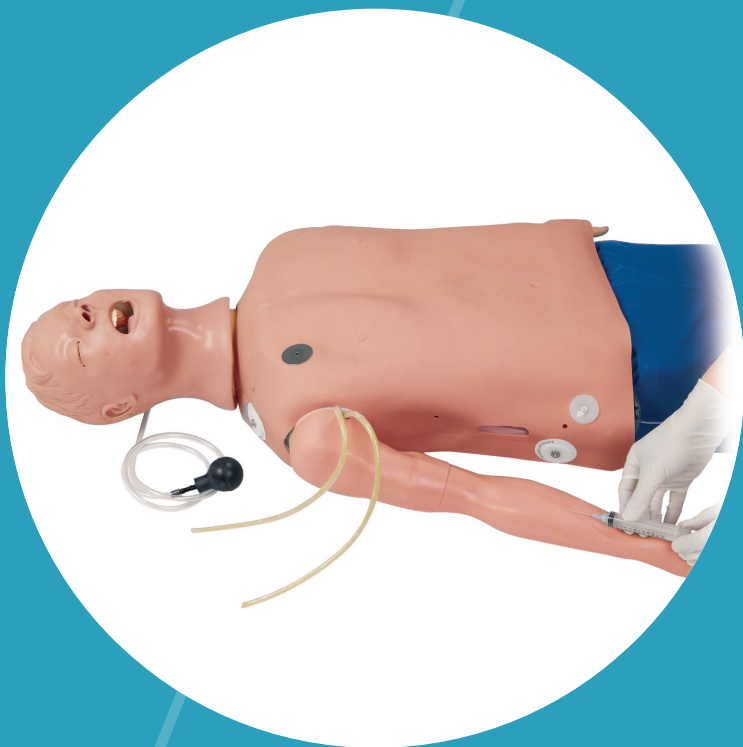


INSTRUCTION MANUAL

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). Replacement 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.

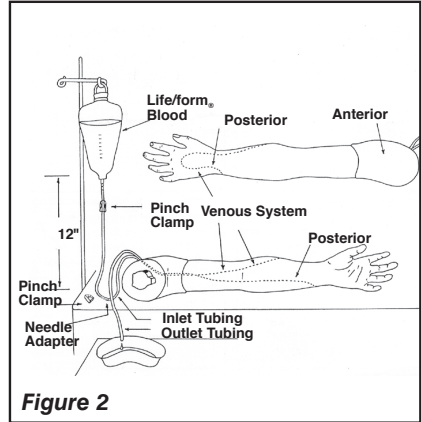


Figure 2

A. Preparing the Synthetic Blood

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



Figure 3

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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

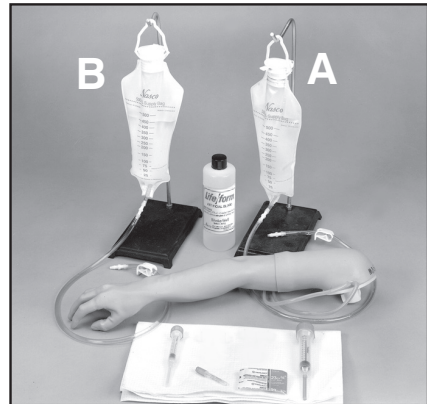


Figure 5

General Instruction for Use

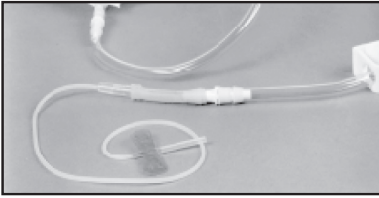


Figure 6

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.

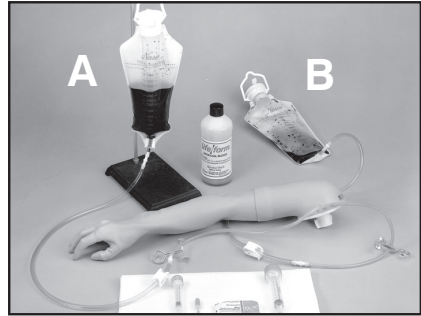


Figure 7

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 unplug 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.

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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)	LF03000	CPARLENE® Series
LF00855	Male Catheterization	LF03601	Adult Airway Management Trainer with Stand
LF00856	Female Catheterization	LF03602	Adult Airway Management Manikin
LF00901	Prostate Examination	LF03609	Child Airway Management Trainer with Stand
LF00906	Ostomy Care	LF03616	Child CRiSis™ Manikin
LF00929	Surgical Bandaging	LF03617	Deluxe Child CRiSis™ Manikin with Arrhythmia Tutor
LF00957	Enema Administration	LF03620	PALS Update Kit
LF00958	Pediatric Injectable Arm	LF03623	Infant Airway Management Trainer with Stand
LF00961	Intramuscular Injection	LF03632	Child Intraosseous Infusion/ Femoral Access Leg on a Stand
LF00984	Breast Examination	LF03633	Child Airway Management Trainer Torso
LF00995	Arterial Puncture Arm	LF03693	Basic Buddy® CPR Manikin
LF00999	Pediatric Injectable Head	LF03699	“Airway Larry” Airway Management Trainer
LF01005	First Aid Arm	LF03709	Infant CRiSis™ Manikin
LF01008	Intradermal Injection Arm	LF03720	Baby Buddy™ Infant CPR Manikin
LF01012	Heart Catheterization (TPN)	LF03750	Bariatric CPR Manikin
LF01019	Ear Examination	LF03770	Chest Tube
LF01027	Peritoneal Dialysis	LF03953	CRiSis™ Manikin, Complete
LF01028	Suture Practice Arm	LF03955	Deluxe CRiSis™ Manikin
LF01034	Suture Practice Leg	LF03956	Deluxe “Plus” CRiSis™ Manikin
LF01036	Spinal Injection	LF03965	Adult CRiSis™ Auscultation Manikin
LF01037	Hemodialysis Practice Arm	LF03966	Adult CRiSis™ Auscultation Manikin with ECG Simulator
LF01038	Episiotomy Suturing Set	LF04000	GERi™/KERi™ Manikin Series
LF01042	Suture Kit	LF04200	Adult Sternal Intraosseous Infusion
LF01062	Pelvic, Normal & Abnormal	LF06001	CPR Prompt® Adult/Child Manikin
LF01063	Stump Bandaging, Upper	LF06012	CPR Prompt® Infant Manikin
LF01064	Stump Bandaging, Lower	LF06200	CPR Prompt® Keychain
LF01069	Cervical Effacement	LF06204	Rescue Aid
LF01070	Birthing Station		CPR Prompt® Rescue and Practice Aid
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		

