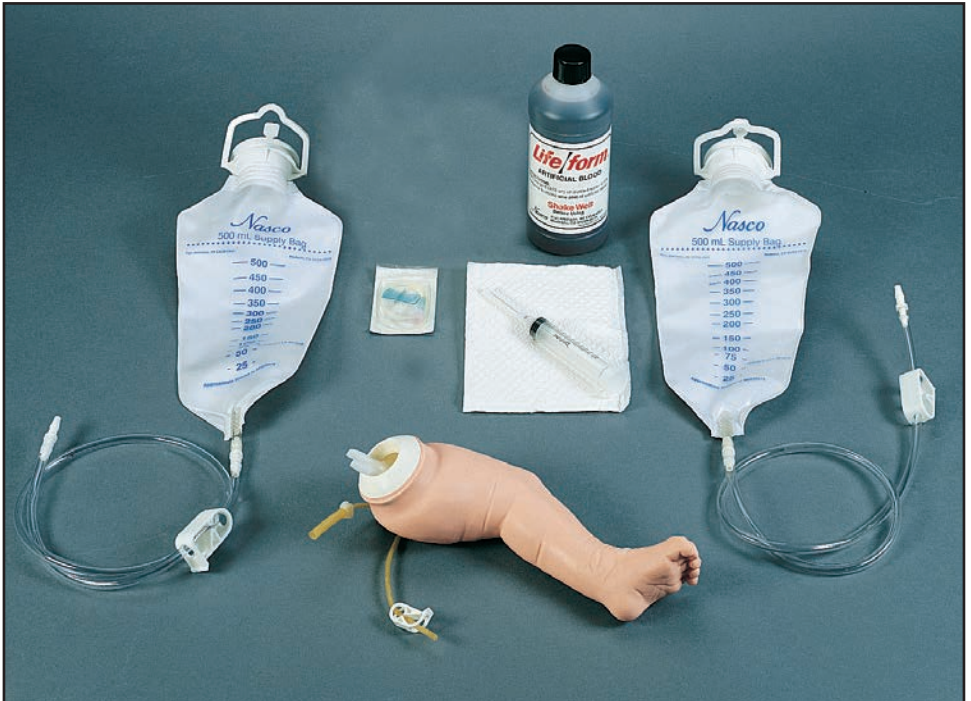


Infant IV Leg LF03636U Instruction Manual



About the Simulator

The **Life/form**® Infant IV Leg Simulator is an exciting training aid for practicing and demonstrating intravenous puncture of the newborn. Visual, as well as tactile, realism has been designed into this training aid to provide students with the most realistic training possible in developing skills for infant venipuncture. A special, extremely thin synthetic skin is paired with rubber tubing with a small lumen and thin walls to make the **Life/form**® IV Leg Simulator the most realistic means of training medical personnel available.

With proper care, this **Life/form**® Simulator will provide years of reliable service. Please read the instructions carefully.

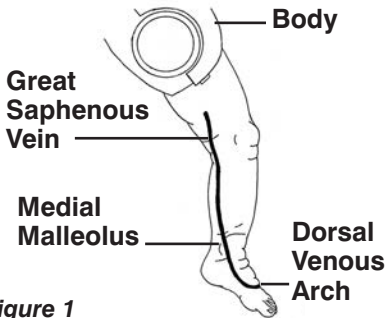


Figure 1

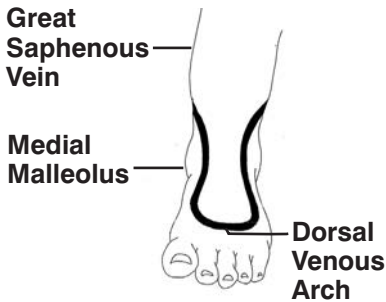
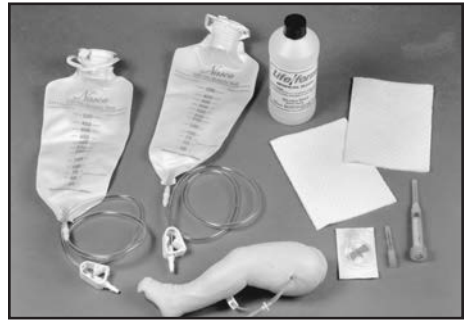


Figure 2



List of Components

- **Life/form**® Infant IV Leg
- 3 cc Syringe
- **Life/form**® Venous Blood — 1 Pint
- 2 IV Bags w/Clamps
- Pinch Clamp
- Winged Infusion Set
- 22-gauge needle
- 2 Towels

Internal Structure

The figures on this page show the position of the tubing embedded within the leg to simulate veins. (**See figures 1 & 2.**) The tubing is superficial in its full length, offering a selection of injection sites. Careful palpation will allow the student to locate the veins.

Set Up

The **Life/form**® Infant IV Leg has been designed to replace the standard leg on the Resusci® Baby* CPR manikins.

*RESUSCI® BABY IS A TRADEMARK OF LAERDAL MEDICAL CORPORATION.



Figure 3

General Instructions for Use

A. Preparing the Synthetic Blood

Concentrated blood colorant is provided. Fill the 16-oz. container with tap water for the proper dilution. (See figure 3.)



Figure 4

B. Filling the IV Supply Bag

Be certain the clamp on the IV bag is closed before filling. Pour the diluted **Life/form**® blood into the IV bag. (See figure 4.) Hang the bag at an 18" height.

C. Attaching the Leg to the Body

Place the Resusci® Baby* on a flat surface, such as a tabletop. Remove the baby's clothing and unhook the body skin at the three points along the torso. Roll the skin back over

the chest. Now lift up on the inner cover just enough to get in and snap out the standard leg. (See figures 5 & 6.) When this is done, simply snap the venipuncture right leg into place. Drop the inner cover and replace the skin and clothing.

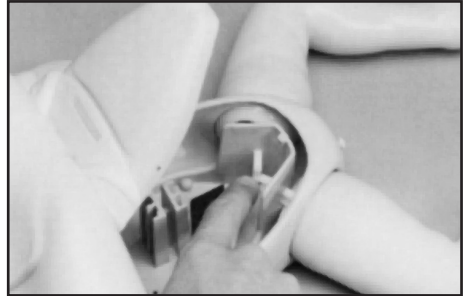


Figure 5

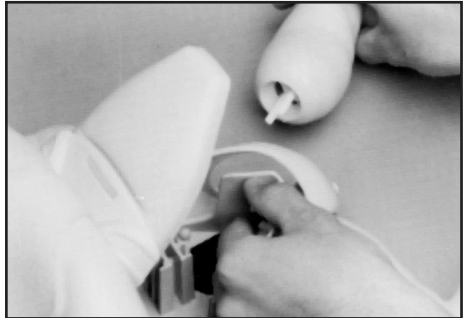


Figure 6



Figure 7

D. Connecting the Leg to the IV Supply Bag

The leg is supplied with a special connector that fits the leg tubing and IV tubing. Insert the IV tubing into the tubing coming from the leg as shown. (See figure 7.)



Figure 8

E. Filling the Venous System

1. Slide the pinch clamp over the free tubing end and place the tubing end over a container.
2. Open the IV bag clamp and allow **Life/form**® blood to flow through the system until a steady stream exits without bubbles through the open tubing end. **(See figure 8.)**
3. Close the pinch clamp on the open tubing end.



Figure 9

F. Performing Venipuncture

The **Life/form**® Infant IV Leg Simulator is now pressurized and ready for venipuncture practice. **(See figure 9.)** Venous pressure is altered by varying the height of the IV bag. A height of 18" is a good starting point. Excessive height may cause leakage through previous puncture

sites. Needle sizes should be kept as small as possible to minimize damage to the leg skin and tubing. Refer to page 1 for identification of vein sites.

G. Preparing the Leg for Intravenous Infusions

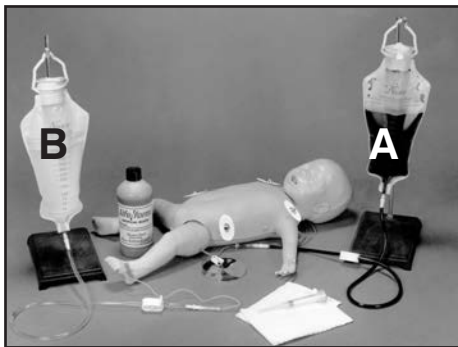


Figure 10

1. Hang both IV bags (not more than 18" high) and close the clamps at the ends of both IV bags. Fill bag A with synthetic blood and bag B with distilled water (infusion). **(See figure 10.)**
2. Appropriate intravenous infusion needles (or butterflies) should be used.
3. The self-sealing simulated veins lend themselves very well to the practice of starting IV infusions, and IVs can be started where indicated. **(See figures 1 & 2.)** Cleanse the sites with distilled water only.
4. Attach the adapter end of the bag A IV tubing into the leg tubing connector.
5. Place the other leg tubing end in a basin or jar, and "flush" the vascular system by opening the clamp. Allow the infusion to pass through the system until air bubbles are eliminated. Shut off the flow at the leg tubing with a pinch clamp.

6. Insert an IV needle (or butterfly) into the vein. “Flashback” will indicate a proper insertion.
7. Close the clamp on IV bag A and remove the pinch clamp from leg tubing at the basin.

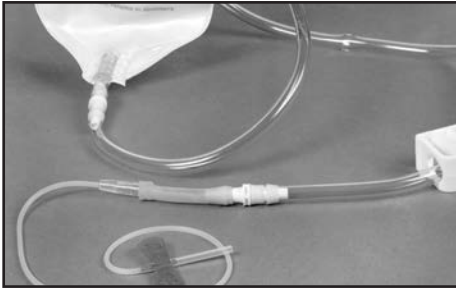


Figure 11

8. Attach the latex needle adapter to the IV needle (or butterfly) and bag B IV tubing. Open the clamp on bag B. (**See figure 11.** This figure shows only the correct attachment of the latex needle adapter. During the actual procedure, the butterfly needle would have already been inserted into the vein at this point.) Proof of proper procedure will then be evidenced by the flow of infusion fluid from IV bag B. Control the flow rate with the clamp on IV bag B. This fluid can be reused.

H. Recommended Procedures for Simultaneous “Blood” Drawing and IV Infusions

Use two IV bag kits. Hook up and install IV bag A as shown. (**See figure 12.**)

1. Drawing “Blood” — Begin with synthetic blood (or distilled water) in bag A. Do not hang bag A more than 18" over the level of the simulator. “Flush” the system by allowing fluid to flow into a collection dish until all the bubbles

in the tubing are gone. Close the mini clamp on the tubing running to the dish. The system is now full of “blood” and pressurized. “Blood” can now be drawn anywhere along the pathway of the vein.

2. Intravenous Infusion — Insert the butterfly into the lumen of the vein. Proof of a correct insertion is evidenced by a flashback of “blood.” Now close the clamp on bag A, remove it, and reattach it to the butterfly using the 2" latex adapter. Take bag B (empty), attach it where bag A had been connected, and lay it by the simulator, making sure the mini clamp is closed.

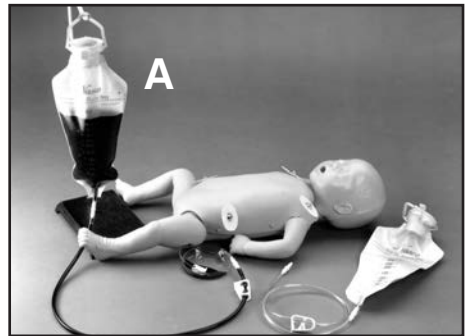


Figure 12

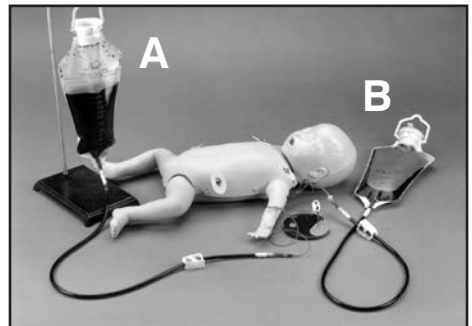


Figure 13

Now, open both bag clamps and adjust the infusion rate with the clamp on bag A. Should bag B fill, simply close the clamps on both bags, unhook them (be aware of some leakage), and switch each to the other's position. (**See figure 13.**) Hook them up and open both clamps. Bag B is now the supply bag. This switch can be done as often as desired. **Note:** Always regulate the flow of "blood" from the bag on the stand, and open the other bag clamp. To draw "blood" again, simply close the clamp on the bag that is lying down.

Causes for Failure in Function

During the procedure of drawing "blood," if "blood" cannot be aspirated:

- A. The clamp on the IV tubing of the infusion bag may not be opened.
- B. Air could be trapped in the venous system. Simply flush the system slowly, draining some "blood" or distilled water, whichever you are using, until all air bubbles are eliminated.
- C. If these measures do not unclog the venous system, try using a large (50 cc) syringe to force fluid through the tubing.
- D. If none of these measures work, peel off the skin to the ankle. **DO NOT REMOVE IT FROM THE TOES.** Examine all the tubing for possible kinks. Generously cover the inside of the leg with baby powder and pull the skin back over the leg core.

Care of the Simulator

This training simulator has been designed to provide the greatest possible durability and lowest maintenance while not compromising the realism of use. The following are some suggestions for helping you yield the maximum life from this unique simulator.

A. Before Storing the Leg

1. Disconnect the IV bag and pour the fluid back into the container.
2. Rinse the IV bag.
3. Drain the leg. Open the pinch clamp and tip the leg up until the fluid is removed. Flush the leg with water. Rinse off the exterior of the leg and dry. Return the leg to storage.

B. Needles

Hypodermic needles are actually small cutting tools. Puncturing the skin and vein with needles results in small cuts or slits, which will eventually lead to deterioration. The larger the needles, the larger the cuts made in the skin, and the shorter the life of the simulator. It is recommended that 22-gauge or smaller needles be used. Always use sharp needles. Dull or bent needles cause excessive tearing.

C. Distribution of Punctures

The vein is in contact with the skin from the point it enters the leg to the point of exit. If the injections are distributed along the length of the vein, without deviation from acceptable practice, the product will last longer.

D. Tubing Sealant

A Vein Tubing Sealant Kit (LF01099U) has been developed for use with **Life/form**® Injectable Simulators. It will effectively seal punctures in the tubing.

E. Skin Replacement

After prolonged use for injections, the skin and veins on your training leg will show track marks and need replacing with the Infant IV Leg Replacement Skin/Veins.

Supplies/Replacement Parts for the Infant IV Leg

- LF00845U** *Life/form*[®] Venous Blood — 1 Quart
- LF00846U** *Life/form*[®] Venous Blood — 1 Gallon
- LF01022U** Fluid Supply Stand
- LF01130U** Fluid Supply Bag
- LF03639U** Infant IV Leg Replacement Skin/Veins
- LF03640U** Infant IV Leg Replacement Veins
- LF01099U** Vein Tubing Sealant Kit
- LF09919U** Nasco Cleaner

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 Arterial Puncture Arm
LF00999U 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 Intraosseous 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 with Arrhythmia Tutor
LF03620U PALS Update Kit
LF03623U Infant Airway Management Trainer with Stand
LF03632U Child Intraosseous 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 Sterna Intraosseous 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

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