About the Simulator

The Life/form® Infant ECG/Umbilical Cannulation Skin is an exciting training aid for practicing and demonstrating umbilical clamping, cutting, and cannulation of the newborn. This simulator combines visual and tactile realism to provide students with the most realistic training possible. The umbilicus allows students to practice clamping, cutting, and aspirating “blood,” making the use of the simulator a realistic training exercise. The ECG Monitoring System allows rhythms to be detected at four ECG sites.

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

List of Components

- Life/form® Infant ECG/Umbilical Cannulation Skin
- Umbilicus with Latex Adapter Tube and Ramp Clamp
- 5 Umbilical Replacements
- 3/8" Drill Bit
- Life/form® Venous Blood, 1 pint
- IV Bag
- 2 Small Towelettes
- 6 Umbilical Clamps
Setup
The *Life/form*® Infant ECG/Umbilical Cannulation Skin has been designed to replace the standard outer chest skin on the Resusci® Baby* brand CPR Manikins.

Resusci® Baby* Installation Instructions

Removing the Regular Chest Skin
In order to install the Infant ECG/Umbilical Cannulation Skin, you must first remove the outer skin that is currently in place on your CPR Manikin.

![Figure 1](image)

**Figure 1**

Chest Plate Preparation
Lift out the lung plate and chest plate assembly. *(See figure 1.)* Once you have removed the lung plate from your Resusci® Baby*, you must determine which style the lung plate is.

If you have a lung plate like the one in Figure 2, you may proceed to “Installing the Umbilicus” on page 4.

![Figure 2](image)

**Figure 2**

If you have a lung plate like the one in Figure 3, follow the steps below.

You will need to locate the 3/8" drill bit included with your *Life/form*® Simulator and a standard electric 3/8" household drill (not included).

Turning the lung plate over, you will find two circular depressions on the lower end of the lung plate. *(See figure 4.)*

![Figure 3](image)

**Figure 3**

*RESUSCI® BABY IS A TRADEMARK OF LAERDAL MEDICAL CORPORATION.*
By measuring, find the center between the two circles and mark it with a pencil. *(See figure 5.)*

Carefully drill a ¾" hole through the lung plate in the marked location. *(See figure 6.)* (Be sure to wear safety glasses during this step.)

Be sure the hole is nice and smooth and no burrs are present. You may remove any burrs with a file or by trimming carefully with a scalpel. *(See figures 7A and 7B.)*
Installing the Umbilicus

**Figure 8**

Once the lung plate and chest plate assembly have been removed, thread the umbilicus up through the lung plate assembly so about two inches are protruding. *(See figure 8.)*

Next, coil the extra umbilicus under the plate with the small latex tubing coming out of the right hand side of your Resusci® Baby*.

**Figure 9**

Now install your lung and chest plate assembly back into the body. *(See figure 9.)*

**Figure 10**

Finally, snap the top four connections down on your new chest skin, thread the umbilicus through the hole in the chest skin, and finish attaching the skin. *(See figure 10.)* Push the umbilicus down so only about one inch is protruding.

**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 11.)*

*RESUSCI® BABY IS A TRADEMARK OF LAERDAL MEDICAL CORPORATION.*
B. Hanging the IV Bag
Hang the bag at an 18" height.

C. Filling the IV Supply Bag
Pour the diluted Life/form® Blood into the IV bag. (See figure 12.) Distilled water can be used in place of synthetic blood, and is recommended. Be certain the clamp on the tubing is closed before filling.

D. Connecting the IV Bag to the Umbilicus
The umbilicus is supplied with a special connector that fits the umbilicus tubing and the IV tubing. Insert the connector from the IV tubing into the tubing coming from the umbilicus as shown. (See figure 13.)

E. Filling the Umbilicus System
1. Hold a towel or container near the open end of the umbilicus.
2. Carefully open the clamp and allow the liquid to slowly flow through the system until a steady stream exits all three holes at the umbilicus end. Note: Careful adjustment of the ramp clamp is needed to supply a steady stream of “blood” during aspiration procedures. (See figure 14.)

Procedures That Can Be Performed on This Simulator
A. “Blood” Aspiration
The Life/form® Infant ECG/Umbilical Cannulation Skin is now ready for aspiration practice. The “blood” flow is controlled by careful adjustment of the ramp clamp.

B. Cutting the Umbilicus
The Life/form® Infant ECG/Umbilical Cannulation Skin Simulator allows the student to practice clamping and cutting the umbilicus. The umbilicus may be drawn out of the body to the desired length for trimming. Note: When the umbilici are used up, order the Umbilical Cannulation Replacement Cords (LF03642U) on page 7.
C. Clamping the Umbilicus

The Life/form® Infant ECG/Umbilical Cannulation Skin is perfect for practicing umbilicus clamping and umbilicus clamp removal.

Causes for Failure in Function

IV infusion may not flow if the bag isn’t high enough, if the clamp isn’t open, or if the latex tubing is kinked or pinched.

A. During the Procedure of Drawing “Blood,” If the “Blood” Cannot Be Aspirated

1. The clamp on the IV tubing may not be open.
2. Air could be trapped in the umbilicus system. Simply flush the system slowly, draining some “blood” or distilled water, whichever you are using, until all the air bubbles are eliminated.
3. Check for possible kinks in the system.

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 Infant ECG/Umbilical Cannulation Skin

1. Drain the umbilicus by raising the body over the height of the IV bag and then opening the ramp clamp. Allow the “blood” to flow back past the bag clamp, then close the clamp.
2. Disconnect the IV bag and pour the fluid back into the container.
3. If synthetic blood was used, flush out both the bag and umbilicus with clean water and allow them to dry.

B. Umbilicus Replacement

After the length of umbilicus is used up, it will need replacing. The simulator comes with five additional umbilici. To replace the used umbilicus with a new piece, do the following:

1. Make sure the clamp on the IV bag is closed.
2. Disconnect the old umbilicus from the latex tubing. (See figure 15.)

Figure 15

Figure 16
3. Attach the new umbilicus by sliding it inside the tube. (See figure 16.)

4. Reinstall the umbilicus as described earlier.

Supplies/Replacement Parts for the Infant ECG/Umbilical Cannulation Skin

LF00845U *Life/form®* Venous Blood, 1 quart

LF00846U *Life/form®* Venous Blood, 1 gallon

LF01022U Fluid Supply Stand

LF01130U Fluid Supply Bag

LF03642U Umbilical Cannulation Replacement Cords (10 pk)

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 Emema 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 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 Venotech IV Trainer
LF01174U NG Tube & Trach Skills
LF01184U Venotech 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 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

Nasco Fort Atkinson
901 Janesville Avenue, P.O. Box 901
Fort Atkinson, Wisconsin 53538-0901
1-800-558-9595

eNasco.com • E-mail: lifeform@eNasco.com

COPYRIGHT © NASCO 1995 PRINTED IN U.S.A. NP 32-00/RV 8-12