

A collection of medical simulation equipment. At the top, a blood pump system with a clear reservoir labeled 'Aqua' and a black tube. Below it, a realistic mannequin arm and hand is connected to the pump. To the right, two bottles of 'Life/Form' simulation fluid, one labeled 'Simulated Blood' and the other 'Simulated Urine'. In the foreground, there are several yellow syringes, a blue bulb, a small green vial, a syringe, and a pair of orange gloves. A small white tube with 'Blue' and 'Life/Form' branding is also visible.

About the Simulator

The **Life/form®** Child **CRiSis™** Intraosseous Infusion/Femoral Access Leg is a dramatic and exciting training aid designed to demonstrate and simulate the intraosseous infusion procedure. It enables students to learn and practice with incredible accuracy and realism a procedure that has been very difficult to simulate in the past.



Figure 1

List of Components (See figure 1.)

- Case
- Leg on Stand
- 10 Bone Inserts
- 2 Small White Towelettes
- 1 60 cc Syringe
- K-Y Jelly
- Wax
- ½-oz. Liquid Lubricant
- 2 Leg Skins
- 2 Mixing Bottles w/Blood Mix
- IV Bag

General Instructions for Intraosseous Infusion Use

1. Place the simulator on a flat surface such as a table top. Lay absorbent towels under the knee for support and to absorb any overflow.



Figure 2

2. To prepare blood mixture, combine the red coloring, 1 full tube of K-Y Jelly, and 1¼ cups of tap water in the pint bottle provided. **(See figure 2.)** Shake vigorously for 30 seconds until contents are mixed completely. After “blood” is mixed, fill the 60 cc syringe by placing the tubing end of the syringe into the bottle and drawing the “blood” up into the syringe.



Figure 3

3. Wrap the leg skin over the lower leg and fasten it on the backside. **(See figure 3.)**



Figure 4

4. Connect the end of the tubing to the bone piece. Apply liquid lubricant to the entire bone and slide into position in the leg. **(See figure 4.)**

IMPORTANT

5. **Make your first needle insertion into the bone and remove the needle stylus. Proper insertion and pressure applied to the syringe will allow “blood” to flow through the tubing and fill the bone. When you observe “blood” flowing up through the needle, the bone is completely charged. Each new bone will need to be charged in this same manner. Correct subsequent insertions will produce an immediate flow of fluid through the needle. To reduce the pressure being placed on the bone, pull the plunger on the syringe back once verification of proper placement has been made. This will decrease the amount of “blood” that may leak from the bone.**
6. The bones have been designed so all four sides can be punctured. To change sides, carefully remove the bone from the leg and wipe clean. Remove a small piece of wax (provided) and work with your fingers until soft. Rub the wax piece back and forth across

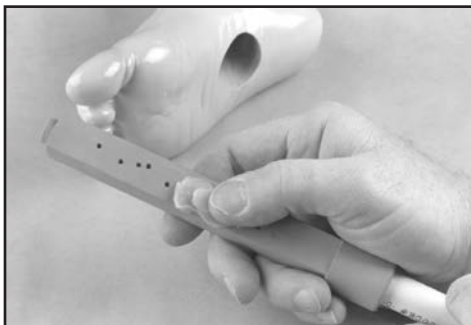


Figure 5



Figure 6

the bone holes until they are sealed. **(See figure 5.)** A thin layer of wax left on the bone surface over the holes will help in sealing. Finish by applying a thin film of Nasco lubricant over the whole bone. Turn the bone 90 degrees and reinsert into the leg. **(See figure 6.)** Do this until all four sides of the bone structure have been punctured, at which time the bone can be discarded.

SPECIAL NOTE: The Intraosseous Infusion Simulator duplicates a procedure that requires a great deal of pressure to be placed on both the simulator and the needle being used. Extreme caution should be taken to avoid pushing the needle completely through the simulator, injuring the person performing the procedure. Nasco cannot be responsible for injuries resulting from improper use of the simulator.

Intraosseous Infusion Clean Up Procedures

1. Remove and discard any bones that have been charged with blood mixture.
2. Remove leg skin and use paper towels to completely wipe the simulator and remove any “blood” or lubricating agent.
3. Drain the syringe and discard any of the unused blood mixture.
4. Use clean tap water to flush and clean the syringe and tubing. Allow to dry.
5. Place all items back into case for storage.

General Instructions for Femoral Access Use

1. Prepare the “blood” by filling one of the pint bottles with water and shaking until mixed. (Do not add the K-Y Jelly to the femoral blood mix.)
2. Be sure the clamp on the IV bag tubing is closed and hang the bag no more than 18" above the leg. Pour the blood mix from the bottle into the IV bag.

4. Open the clamp on the IV bag.
5. To charge the vein, make your first needle insertion into the vein and pull back on the syringe to remove air from the vein. Repeat this until “blood” is withdrawn. The vein is now charged, and subsequent insertions will produce an immediate flow of “blood.”

Femoral Access Clean Up Procedures

1. Close the clamp on the IV bag. Pull the fitting from the femoral access tubing and let the access tubing drain out from the leg.
2. Drain the bag into the pint bottle by placing the IV bag tubing end into the bottle and opening the clamp.
3. When the bag is empty, close the bottle and flush out the IV bag with clean water. Let dry.

Supplies/Replacement Parts for the Intraosseous Infusion/Femoral Access Leg

- LF00845U **Life/form**® Venous Blood, 1 quart (Femoral Access)
- LF00846U **Life/form**® Venous Blood, 1 gallon (Femoral Access)
- LF01111U Intraosseous Infusion Simulated Blood Mixture
- LF03618U Intraosseous Infusion Bone Replacement Kit
- LF03619U Intraosseous Infusion Left and Right Leg Skin Replacements
- LF03626U Femoral Injection Pad Replacement

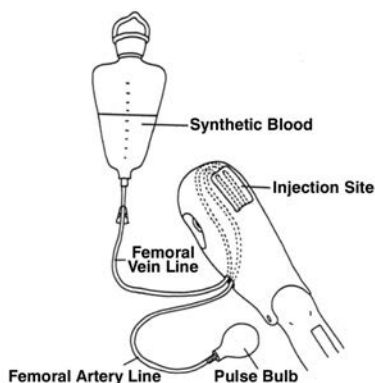


Figure 7

3. Attach the fitting end of the tubing to the access site tubing. (**See figure 7.**)

Other Available *Life/form*® Simulators

LF00698U	Adult Injectable Arm (White)	LF01184U	Venatech IM & Sub Q
LF00855U	Male Catheterization	LF01193U	Special Needs Baby
LF00856U	Female Catheterization	LF03000U	CPARLENE ® Series
LF00901U	Prostate Examination	LF03601U	Adult Airway Management Trainer with Stand
LF00906U	Ostomy Care	LF03602U	Adult Airway Management Manikin
LF00929U	Surgical Bandaging	LF03609U	Child Airway Management Trainer with Stand
LF00957U	Enema Administration	LF03616U	Child CRiSis ™ Manikin
LF00958U	Pediatric Injectable Arm	LF03617U	Deluxe Child CRiSis ™ Manikin with Arrhythmia Tutor
LF00961U	Intramuscular Injection	LF03620U	PALS Update Kit
LF00984U	Breast Examination	LF03623U	Infant Airway Management Trainer with Stand
LF00995U	Arterial Puncture Arm	LF03632U	Child Intraosseous Infusion/ Femoral Access Leg on a Stand
LF00999U	Pediatric Injectable Head	LF03633U	Child Airway Management Trainer Torso
LF01005U	First Aid Arm	LF03693U	Basic Buddy ® CPR Manikin
LF01008U	Intradermal Injection Arm	LF03699U	"Airway Larry" Airway Management Trainer
LF01012U	Heart Catheterization (TPN)	LF03709U	Infant CRiSis ™ Manikin
LF01019U	Ear Examination	LF03720U	Baby Buddy ™ Infant CPR Manikin
LF01027U	Peritoneal Dialysis	LF03750U	Fat Old Fred
LF01028U	Suture Practice Arm	LF03760U	Airway Management/Cricoid Pressure Trainer
LF01034U	Suture Practice Leg	LF03770U	Chest Tube
LF01036U	Spinal Injection	LF03953U	CRiSis ™ Manikin, Complete
LF01037U	Hemodialysis Practice Arm	LF03955U	Deluxe CRiSis ™ Manikin
LF01038U	Episiotomy Suturing Set	LF03956U	Deluxe "Plus" CRiSis ™ Manikin
LF01042U	Suture Kit	LF03965U	Adult CRiSis ™ Auscultation Manikin
LF01062U	Pelvic, Normal & Abnormal	LF03966U	Adult CRiSis ™ Auscultation Manikin with ECG Simulator
LF01063U	Stump Bandaging, Upper	LF04000U	GERI ™/ KERI ™ Manikin Series
LF01064U	Stump Bandaging, Lower	LF04200U	Adult Sternal Intraosseous Infusion
LF01069U	Cervical Effacement	LF06001U	CPR Prompt® Adult/Child Manikin
LF01070U	Birthing Station	LF06012U	CPR Prompt® Infant Manikin
LF01082U	Cricothyrotomy	LF06200U	CPR Prompt® Keychain Rescue Aid
LF01083U	Tracheostomy Care	LF06204U	CPR Prompt® Rescue and Practice Aid
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		

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