

Nursing Kelly

Directions for Use



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Items Included

- (1) Full-Body Manikin
- (1) Blood Pressure Training Arm (Nursing Kelly SimPad)
- (1) Multi-Venous IV Training Arm
- (1) Hospital Gown
- (1) Male Genitalia
- (1) Female Genitalia
- (3) Urinary Valves
- (3) Anal Valves
- (1) Red Simulated Blood
- (1) Manikin Lubricant Spray
- (1) Assembly Tool Kit
- (1) Laerdal Global Warranty Booklet

Optional Accessories


- Wound Care & Assessment Set:
- (1) Lacerated Hand with Forearm Surgical Incision and Painted Sutures
 - (1) Chest Surgical Incision Module
 - (1) Abdominal Packing Module
 - (1) Abdominal Incision Module with Painted Sutures
 - (1) Abdominal Incision Modules with Penrose Drain; Staples and Nylon Sutures (One each)
 - (1) Abdominal Subcutaneous Heparin and Insulin Injection Module
 - (1) Thigh Packing and Irrigation Module
 - (1) Thigh Suture Module with Nylon Sutures
 - (1) Thigh Debridement Module
 - (1) Infected Colostomy Stoma
 - (1) Dorsal Gluteal and Ventral Gluteal Decubitus Ulcer Modules (One each)
 - (1) Below Knee Amputation Stump
 - (1) Below Elbow Amputation Stump
 - (1) Diabetic Foot with Gangrenous Toes and Heel Decubitus Ulcer
 - (1) Varicose Vein Leg with Stasis Ulcer

 **Caution: Latex**

This product contains **Natural Rubber** latex which may cause allergic reactions when in contact with humans.

Warning!

Use only on clean surface. Avoid felt tipped markers, ink pens, acetone, iodine, or other staining products and avoid placing the manikin on newsprint or inked lines of any kind.

 The product, when carrying the CE-mark, is in compliance with essential CE requirements and other relevant provisions of council directive 1999/5/EC.

Skills Taught

- Basic patient handling
- Denture care
- Oral hygiene
- Oral and nasal Intubation
- Eye and ear irrigation (simulated)
- NG Tube insertion, care medication administration and removal
- Lavage/Gavage
- Tracheostomy care and suctioning
- Blood pressure skills (When used with SimPad)
- IV care and management
- Subcutaneous and intramuscular injection
- Oxygen delivery procedures
- Ostomy and irrigation care
- Catheterization skills
- Enema simulation
- Colonic irrigation
- Wound assessment and care (When used with optional Wound Set)
- Bandaging and dressing
- Auscultation and recognition of normal and abnormal heart, breath and bowel sounds (When used with SimPad)

Introduction

Nursing Kelly is a full-body, lifelike manikin designed to teach skills from basic patient handling to advanced nursing, including the measurement of noninvasive blood pressure and the auscultation and recognition of normal and abnormal heart, lung and bowel sounds when used with the SimPad System.

The manufacturing quality of this simulator should provide many sessions of training when reasonable care and maintenance are practiced.

Laerdal Recommends

- IV Injections – 22 gauge needle, or smaller
- Tracheostomy Tube – Size 6
- NG Tube – Size 16 French
- Endotracheal Tube – 7.5 or smaller
- Laryngoscope Blade - Size #4, straight or curved
- Urethral Catheter – 16 French
- Enema Simulation – 7 mm

Teeth

To remove: Grasp firmly and lift.

Insert and remove bottom teeth first when performing denture care.

To reinsert both sets:

- a. Begin on one side and work around, aligning ridges with corresponding grooves in jaws. (Dusting with baby powder is helpful.) (Photo 1)
- b. Press firmly into place.



Photo 1

Carotid Pulse

To generate a carotid pulse, use the hand held bulb located on the right axillary side of manikin. Firmly squeeze bulb while palpating for pulse at carotid site.

Tracheostomy Plug

The Tracheostomy plug may be removed by grasping firmly, then lifting up and out. To replace, press into trach opening.

Tracheostomy Care

1. Mix solution of 1/2 cup mild liquid detergent and 1/2 cup water.
2. Remove lungs.
3. Pour mixture into simulated lungs.
4. Fill lungs to a level where suction catheter will pick up mixture.
5. Reattach lungs at connector.

The consistency of the solution approximates the mucus normally suctioned in a tracheostomy patient.

We recommend a size 6 tracheostomy tube. Opening will accommodate other sizes, but a size 6 is usually most suitable.

Drain, rinse, and air-dry lungs immediately after each use.

Be careful not to introduce fluids into speaker ports or near electronics in manikin's chest.

NG Tube Placement

This manikin features an esophagus and stomach reservoir for practice of NG tube insertion and skills such as Lavage and Gavage.

For best results, lubricate the tube with manikin lubricant prior to NG or OG tube insertion.

Intubation

The following equipment is recommended:

- a. Endotracheal tube, size 7.5 ID or smaller
- b. Manikin Lubricant spray
- c. 10 ml syringe
- d. Laryngoscope blade, size #4 straight or curved
- e. Laryngoscope handle
- f. NG Tube, size 16 French

Remove trach plug prior to insertion of intubation tubes.

Intubation tubes and airway passages should be sprayed with manikin lubricant spray prior to intubation.

Chest Plate

To remove:

1. Apply pressure to center of plate.
2. Work your fingers under edge of plate while lifting.

To insert:

1. Position plate over cavity.
2. Work plate edges into groove on torso cavity.

Lungs

Lungs may be removed from bronchial tubes by unscrewing them at the connector site. To replace, reverse procedure.

Stomach Reservoir

The stomach reservoir attaches to esophagus with a connector. Unscrew reservoir from esophagus to fill or drain.

Belly Plate with Sounds

To remove:

1. Apply pressure to center of plate.
2. Work your fingers under edge of plate while lifting.
3. Disconnect bowel sound speaker connector to release plate.

Dusting with talcum powder is helpful when replacing belly plates.

To remove:

1. Position plate over cavity.
2. Reconnect bowel sound speaker.
3. Work plate edges into groove on pelvis cavity.

Belly Plate with Colostomy Stoma

To remove:

1. Apply pressure to center of plate.
2. Work fingers under edge while lifting. (Photo 2)



Photo 2

To insert:

1. Attach valve and genitalia (see Genitalia, page 5).
2. Work plate edges into pelvis cavity.

The belly plate with colostomy also contains the urinary reservoir and colostomy stoma.

To insert:

- a. Remove colostomy stoma.
- b. Fill with fluid.
- c. Gently reinsert stoma.

Make sure genitalia and urinary connectors are in place prior to filling.

Injection Pads

- a. To remove, squeeze center of pad with fingers and pull.
- b. To replace, squeeze pad and insert in opening.

Dusting pads with talcum powder will assist with reinsertion.

Injection pads may be injected with water. Foam should be removed from pads immediately following training. Squeeze out fluid and air dry.

To prevent mildew or mold, pads can be soaked in a mild solution of disinfectant and water or bleach and water. Squeeze excess solution from pads, allow them to dry, then store or reinsert in manikin.

Waist, Knee and Ankle Joints

These joints are connected with a bolt and lock nut. To remove, unscrew lock nut and pull bolt from joint. Segments will now easily disconnect.

Arms

Manikin is shipped with arms attached. The attachment comprises of a washer, spring, and additional washer on the 4.5 inch bolt in that order. The bolt is then placed through the hole in the shoulder and into the chest cavity. A washer, then wing nut are placed on the bolt within the chest cavity. Tighten the wing nut.

To remove:

1. Remove chest plate from manikin to locate hole in the shoulder.
2. Remove deltoid injection pad from arm by squeezing skin in center of pad while pulling.
3. Use a screwdriver to hold bolt steady while removing the wing nut.
4. Remove the washers and spring, then the bolt can be removed.



Figure 1

Legs

Legs are attached with a 6" long bolt, a spring, a large washer, a small washer and a wing nut.

Attachment hardware is located in envelope inside carton.

To attach legs:

1. Remove belly plate from the manikin to locate hole in hip.
2. Remove thigh injection pad from leg by squeezing skin in center of pad while pulling.
3. Place spring and small washer over bolt.
4. Insert bolt through leg hole and then to pelvis.
5. Slide large washer and wing nut over bolt inside pelvis.
6. Use a screwdriver to drive a bolt into wing nut and tighten.
7. To remove legs, reverse procedure.



Figure 2

Articulating parts will benefit from a light application of talcum powder prior to training sessions.

IV Arm

Multiple Venipuncture sites:

Multiple Venipuncture sites:

- Dorsal Veins of Hand (3)
- Antecubital
 - Cephalic Vein
 - Median Vein
 - Basilic Vein

A 22 gauge needle or smaller is recommended to extend the life of the IV Arm.

When using an IV catheter, lubricate with manikin lubricant for easier insertion.

Directions for Use:

1. Attach IV bag to IV tubing.
2. Attach IV tubing to either latex vein.
3. Allow fluid to flow through arm and out other latex vein.
4. Clamp off flow of water from open vein.

The arm is now ready to practice venipuncture.

When excessive leaking occurs at puncture sites, a new skin and vein system should be installed to reduce loss of fluid.

We recommend working at a sink when replacing the skin and vein system.

Replacing Skin and Veins

Remove skin:

Cut off skin. This can be done with a sharp knife, scalpel or scissors. (Figure 3)

When finished, discard skin, but keep thumb insert.



Figure 3

Replacing veins:

1. Remove tubing from track in mandrel.
2. Rinse and dry vein grooves well and swab with alcohol. Remove any excess glue.
3. Place new veins along grooves, (Figure 4) spot gluing as needed. (We recommend a fast-drying glue.)

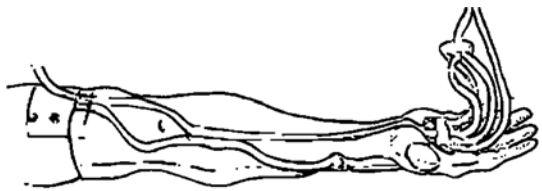


Figure 4

Replacing skin:

1. Add thumb insert to new arm skin. Use a generous amount of talcum powder on arm mandrel and on inside of arm skin to aid in the insertion of the mandrel into the skin.
2. Slide hand into skin. (Photo 3)



Photo 3

3. Work skin over fingers, as with a glove. (Photo 4)



Photo 4

4. Work arm skin up, over mandrel. (Photos 5 & 6)



Photo 5



Photo 6

SimPad Connection

1. Connect Nursing Kelly to Link Box via cable located on back of manikin (Photo 7). For some manikins the adapter cable supplied with SimPad System may have to be used.
2. Connect clear tubing exiting the manikin together with the cable.



Photo 7

Blood Pressure Arm

1. Place Blood Pressure Cuff on arm.
2. Attach tubing on cuff to clear tube, located underneath Nursing Kelly's arm. (Photo 8)



Photo 8

See SimPad DFU for complete Blood Pressure operating procedures.

Do not insert needles into blood pressure arm.

See SimPad DFU for complete Heart, Breath and Bowel Sound Auscultation.

Genitalia

Both male and female genitalia have been provided for urinary catheterization and enema training procedures.

Tube-like valves, with a screw cap on one end, connect urethra and anus to corresponding reservoirs. This cap must be connected to genitalia openings. Soft vinyl end of valve is attached to urinary reservoir with a black clamp and anal reservoir with a white clamp. (White valve connects urinary reservoir; flesh tone valve connects anal reservoir.)

Pelvic support pin must be removed and replaced immediately when assembling and disassembling genitalia. (Figure 5).



Figure 5

Pelvic support pin must be replaced.
 Failure to replace pin will result in pelvic spread.
 Should this occur, see Troubleshooting, page 6.

If this occurs, the genitalia module will no longer fit properly in the manikin.

To disassemble:

1. Lift up on belly plate.
2. Pull upper portion of genitalia back to remove pelvic support pin.
3. Belly plate, genitalia with valves, and colon reservoir may now be removed simultaneously.

To assemble: (Photos 9 & 10)

1. Screw both valves onto genitalia. When attaching valves, be sure alignment of genitalia, urinary reservoir (belly plate) and colon reservoir are as illustrated in Figure 6.

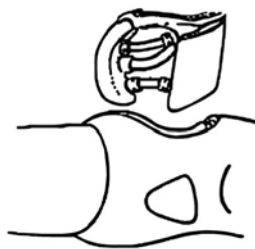


Figure 6

2. Lift up on edge of belly plate.
3. Pull down upper portion of genitalia.
4. Insert into pelvic cavity.
5. Replace the pelvic support pin.
6. Press belly plate into position.

White valve connects urinary reservoir; flesh tone valve connects anal reservoir.



Photo 9

Install white valve on the black connector of the urinary reservoir.



Photo 10

Insert white valve until it is flush with the urinary reservoir and secure the black clamp as shown.

Colon Reservoir

Colon reservoir inserts into pelvic cavity with narrow end downward and connector pointing outward. This connector attaches reservoir to anal valve on genitalia. (Photo 11)



Photo 11

Reservoir should be removed from manikin, inverted, drained and completely air-dried before storing.

Urinary Catheterization and Enema Simulation

Catheters should be well lubricated with manikin lubricant or full strength liquid soap prior to using.

After several uses, catheter may “hang” when water has washed away lubricant, causing friction and binding. If this occurs, generously lubricate a catheter and insert into urethra several times.

If catheter hangs during removal, work it with an “in and out” motion. Use warm water in reservoirs when possible to keep soap from clogging the catheters. Make sure reservoirs are well drained of all water before disconnecting valves.

Check List for Valves That May Leak:

- Do valve connections have an O-ring?
- Does the clamp fit firmly against base of valve?
- Are valves attached correctly?
- If valves are attached correctly, are they properly connected to reservoirs and to genitalia?

A size 16 French catheter is suggested for urethral catheterization.

Size 7mm catheter is suggested for enema simulation.

Troubleshooting

What can I do if my manikin develops a pelvic spread?

Cinch pelvis with a belt and heat with a hair dryer to soften pelvis, cinching as you heat. Insert pin, leaving belt in place until pelvis cools.

What do I do if my connectors leak?

Make sure C-clamps are squeezed tightly into place and connectors are screwed on tightly.

What can I do if I can't remove my catheter?

Make sure the cuff is deflated.

Care and Maintenance

- Clean with mild soap and water; do not submerge manikin or parts in cleaning fluids or water. Apply a light coat of talcum powder to the face and chest skin to achieve skin-like feeling.
- To ensure longevity, each manikin should be cleaned after each training session and a general inspection should be conducted regularly.
- Modules and all other parts should be drained and air-dried thoroughly before storage and disinfected when needed.
- Store properly between teaching sessions.

Replacement Parts

Product Number: Description:

200-00550	Blood Pressure Cuff
250-21050	Manikin Lubricant 45mL
300-00150	Thigh Pad
300-00250	Ventral Gluteal Pad
300-00350	Dorsal Gluteal Pad
300-00450	Anal Valve/Clamp Set
300-00550	Urinary Valve/Clamp Set
300-00750	Red Simulated Blood
300-00850	Tracheostomy Plug
300-00950	Denture Set
300-01050	Wound Care & Assessment Set
300-01150	Head with Trach Plug and Lungs
300-01350	Stomach Reservoir
300-01550	Lung Bag (1)
300-01650	Chest Plate with Speakers
300-02050	Abdominal Plate with Speakers
300-02150	Abdominal Plate with 3 Holes
300-02250	Colon Reservoir
300-02450	Forearm Pad, Right
300-02850	Forearm Pad, Left
300-03550	Abdominal Plate with Packing Wound
300-03850	Male Genitalia
300-03950	Female Genitalia
300-04050	IV Forearm Pad, Right
300-04150	IV Forearm Pad, Left
300-04250	Hardware Set, Extremities
300-04350	Hardware Set, Waist
300-04450	Arm Deltoid Plug
300-04950	Stoma with Through Hole
300-05150	Right Arm, Plain
300-10250	Chest Plate, Plain
312029	Replacement Skin and Multi-Vein System
380200	Blood Pressure Training Arm, Left
380460	Blank Genitalia
380471	Blank Abdominal Plug
380475	Pelvic Pin
380600	Left Leg, Plain
380650	Right Leg, Plain
380700	Multi-Venous IV Training Arm, Right
380800	Left Arm, Plain
381402	Deltoid Pad

Please contact Laerdal Customer Service for more information on Replacement Parts in other skin tones.



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