

Nursing Kid VitalSim™



ENGLISH

Directions for Use



Laerdal
helping save lives

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Cautions and Warnings

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

The Nursing Kid VitalSim™ is a lifelike manikin which realistically simulates a six-year-old male patient. It is specifically designed for training professionals in the practice of basic and advanced nursing techniques, and the auscultation and recognition of normal and abnormal heart and breath sounds.

As a result of quality construction and the ease of replacing individual parts, this simulator should provide many years of training when reasonable care and maintenance is practiced.

Laerdal Recommends

IV Injections – 22 gauge needle or smaller
Tracheostomy Tube – Size 4
Laryngoscope Blade – Size #2, straight or curved
Urethral Catheterization – Size #12 French
Enema Simulation – Size #7
NG Tube – 10 French
ET Tube – 5.0

Items Included:

- (1) Full Body Pediatric Manikin
- (1) Pediatric Multi-Venous IV Training Arm
- (1) Male Genitalia
- (1) Female Genitalia
- (3) Urinary Valves
- (3) Anal Valves
- (1) 10 foot Manikin Connector Cable
- (1) Manikin Lubricant Spray
- (1) Hospital Gown
- (1) Carry Case

Skills Taught:

- Basic patient handling
- Oral hygiene
- Oral intubation
- Venous cannulation
- Nasal intubation
- Catheterization skills
- Eye irrigation & ear irrigation
- Colonic irrigation
- Enema simulation
- NG tube insertion , care, removal and med administration
- Lavage/Gavage
- OG tube insertion
- Tracheostomy care and suctioning
- IV infusion
- Subcutaneous and intramuscular injections
- Heart, Breath & Bowel Sound Auscultation
- Vocal Sound capabilities for interpersonal communication skills

Intubation -

The following equipment is recommended:

- a. Endotracheal tube size 4 or 5, cuffed or uncuffed
- b. Manikin lubricant or liquid soap for lubrication
- c. Laryngoscope blade, size 2 straight or curved blade
- d. Laryngoscope handle

Remove trach plug prior to insertion of intubation tubes.

Laerdal Recommends

Intubation tubes and airway passages should be sprayed with manikin lubricant or lubricate with liquid soap prior to intubation.

Carotid Pulse -

Carotid Pulse is manually generated with the red bulb. Pulse rate is controlled by squeezing bulb.

Tracheostomy Plug -

The tracheostomy plug may be removed by grasping firmly, then lifting up and out. To replace, press into hole.

Laerdal Recommends

We recommend a size 4 tracheostomy tube. Opening will accommodate other sizes, but a size 4 is usually most suitable.

Tracheostomy Care -

1. Mix solution of ½ cup mild liquid detergent and ½ cup water.
2. Remove lungs and trachea.
3. Pour mixture into simulated lungs.
4. Fill lungs to a level where suction catheter will pick up mixture.
5. Reattach lungs at connector.

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

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

Drain and air dry lungs immediately after each use.

Lungs -

Lungs may be detached from the bronchial tubes by removing bands and pulling them off. To replace, reverse the procedure.

Spreading the bands with forceps and slipping them over the "Y" connector may aid in reconnecting the lungs.

NG Tube Placement -

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

Laerdal Recommends

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

Stomach Reservoir -

1. Remove belly plate.
2. Unscrew black screw connector connecting reservoir to esophagus.
3. Fill reservoir with fluid for lavage simulation.
4. Replace in manikin.

Chest Plate -

Laerdal Recommends

Dusting with talcum powder is helpful in replacing chest and belly plates.

To remove:

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

To insert:

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

Belly Plate with Sounds -

Laerdal Recommends

Dusting with talcum powder is helpful in replacing belly plates.

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.

To insert:

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

Injection Pads -

- A. To remove, squeeze pad with fingers and pull.
- B. To replace, squeeze pad and insert in opening.

Injection pads may be injected with water. Immediately following training, foam must be removed, liquid squeezed out and air dried.

Laerdal Recommends

Dusting pads with talcum powder will assist reinsertion into skins and injections sites.

Multi-Venous IV Arm -

Multiple Venipuncture Sites:

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

Instructions 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 fluid.

Laerdal Recommends

We recommend nothing larger than a 22 gauge catheter. This will extend the life of the IV Arm. When using a catheter, lubricate with soft soap and water or spray with manikin lubricant for easier insertion.

The arm is now ready to practice venipuncture.

Laerdal Recommends

When excessive leaking occurs at puncture sites, either a new vein system or skin 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 -

To replace skin and veins:

1. Cut off skin. This can be done with a sharp knife or scalpel. (Figure 1)
2. Discard skin.

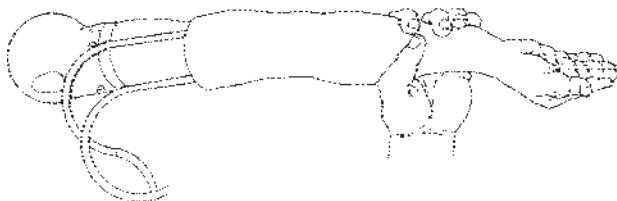


Fig. 1

Replacing veins - (Keeping skin)

1. Lubricate inside of skin with liquid detergent; let it flow down into the finger area.
2. Begin at top of arm and slowly pull skin down and off of arm. **Do not roll, as that will cause skin to bind.** Thumb will detach with skin.
3. Remove tubing from track in mandrel. Glue may need to be scraped away to allow removal.
4. Rinse and dry vein grooves well and swab with alcohol. Be sure to remove any excess glue.
5. Place new veins along grooves, (Figure 2) spot gluing as needed. (We recommend a fast-drying glue.)

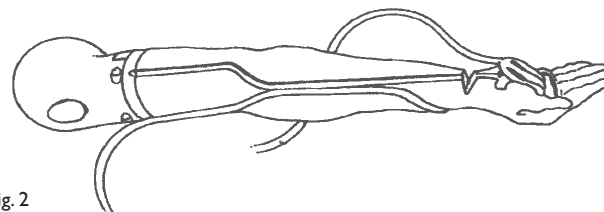


Fig. 2

6. Generously lather arm mandrel with liquid soap.
7. Slide hand into skin.

Laerdal Recommends

Heat arms skins before replacing on mandrel. This can be done with a hair-dryer.

8. Work skin over fingers, as with a glove.
9. Work arm skin up, over mandrel. (Figure 3)

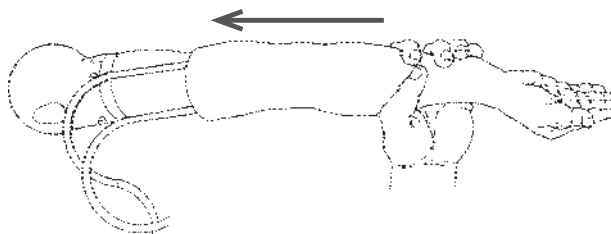


Fig. 3

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 genitalia to the corresponding reservoirs. The cap must be connected to genitalia openings. Soft vinyl end of connector is attached to urinary and anal reservoirs with a white clamp. **(Long valve connects urinary reservoir; short valve connects anal reservoir.)**

Pelvic support pin must be removed and replaced immediately when assembling and disassembling genitalia.

Laerdal Recommends

Pelvic support pin must be replaced.
Failure to replace pin will result in pelvic spread.

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

The belly plate with ileostomy plug contains the urinary reservoir. To fill reservoir, remove plug, fill, then reinsert plug.

To assemble:

1. Screw valve onto genitalia.
2. Slide C ring over the connector.
3. Slide connector over the reservoir end.
4. Tighten C clamp connector.
5. Insert genitalia assembly (Photo 2) into pelvic cavity.
6. Replace the pelvic support pin.
7. Press belly plate into position.

See Photos 1A, 1B & 1C below

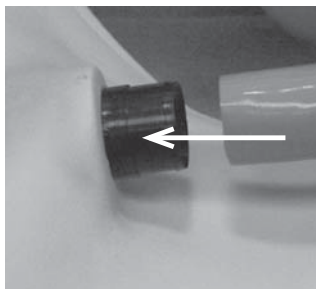


Photo 1A
Slide tube to meet ridge on connector.

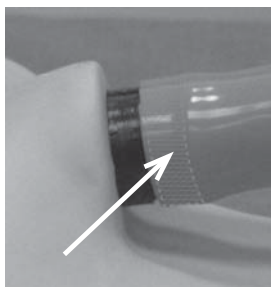


Photo 1B
Area where clamp is placed.

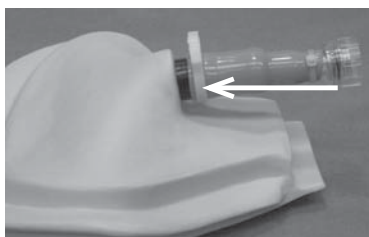


Photo 1C
Apply clamp and squeeze to tighten.

Colon Reservoir -

The colon reservoir inserts into the pelvic cavity with narrow end downward and connector pointing out. This connector attaches the reservoir to the rectal valve on the genitalia. The reservoir should be removed from the manikin, inverted and drained completely before storage. (Photo 2)



Photo 2
Long valve connects urinary reservoir; short valve connects anal reservoir.

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 connectors, and colon reservoir may now be removed simultaneously.

Urinary Catheterization and Enema Simulation -**Laerdal Recommends**

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.

Laerdal Recommends

A size 12 French catheter is suggested for urethral catheterization.
Size 7mm catheter is suggested for enema simulation.

Check List for Valves That May Leak:

- A. Are tubes/connectors attached correctly?
- B. Do valve connectors have an O-ring?
- C. Does the white clamp fit firmly against base of valve?
- D. If valves are attached correctly, are they properly connected to reservoirs and to genitalia?

Vocal Interaction and Auscultation of Heart, Breath and Bowel Sounds -

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



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, cinching as you heat. Insert pin, leaving belt in place until cool.

What do I do if my connectors leak?

Make sure 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:

1. Clean with mild soap and water; do not submerge manikin or parts in cleaning fluids or water.
2. 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.
3. To ensure longevity, each manikin should be cleaned after each training session and a general inspection should be conducted regularly.
4. Modules and all other parts should be drained and air-dried thoroughly before storage and disinfected when needed. After use of injection pads (use water only), accumulated water should be squeezed out. **Do not store wet foam pads in the skin.** 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.
5. Articulating parts will benefit from a light application of talcum powder prior to training sessions.
6. Store properly between teaching sessions.

Do not allow foreign matter to fall into sound openings in the manikin's torso.

Replacement Parts:

Product Number:	Description:
350-00250	Head
350-00350	Left Arm
375-71001	Right IV Arm
350-00450	Left Leg
350-00550	Right Leg
350-00650	Deltoid Pad
350-00750	Thigh Pad
350-00850	Gluteal Pad
375-70150	Pediatric Skin & Vein Kit
200-10001	VitalSim Control Unit
231-01350	10 Foot Manikin Connector Cable
350-00150	Urinary/Anal Valve
350-00950	Gown
231-01150	Carry Case

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