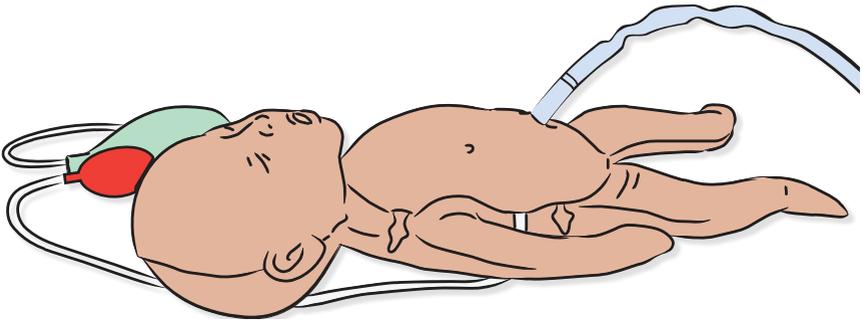


NeoNatalie

Newborn Simulator

Directions for Use



NeoNatalie is a realistic sized newborn baby resuscitation simulator which can simulate presence or absence of essential vital signs such as crying, spontaneous breathing, palpable umbilical pulse and heart sounds. NeoNatalie allows training for both standard care and resuscitation of newborn babies.

Preparing NeoNatalie for Use

NeoNatalie comes deflated and folded and can be when filled with either water (A) or air (B). When filled with water NeoNatalie has a realistic body weight and the neck moves as is relevant for resuscitation. To represent a realistic body temperature, fill with water at 36 °C (98 ° F).

A. Fill with Water



1. Pull out the filling extension from under the face skin. Open the valve. Apply your lips - or a bag-mask ventilation device for improved hygiene - to the valve and inflate until the body is partially inflated. (This will separate the foils and allow easy filling with water afterwards.)

2. Unscrew the filling cap. Place NeoNatalie across a chair or similar to provide support while filling with approx. 2 litres of water from a tap or suitable container. Replace filling cap.

3. To fill with more water: Open the valve. Fill NeoNatalie Suction - or another suitable irrigation device - with water, and use this to insert additional water into NeoNatalie's body until the body feels firm.

4. Close the valve. Fold the filling extension forward and push it under the face skin until it clicks into the holder.

B. Fill with Air

Pull out filling extension from under the face skin. Open the air valve. Apply your lips - or a bag-valve ventilation device for improved hygiene - to the open valve. Inflate air until the body feels firm. Close valve. Bend the filling extension forward and push it under the face skin until it clicks into the holder.

Functions and Features

Head, Neck and Airway

Soft face skin with mouth and nose is attached to the head with snap fasteners.

Air passage is provided from the mouth to the lung. The airway is closed when the head is flexed forwards or far backwards, and open when the head is slightly extended or in the neutral position.

Lung Ventilation

When the airway is correctly opened, the lungs of NeoNatalie can be ventilated with:

- (a) ambient air using a bag-valve-mask resuscitator with a suitable mask size
- (b) exhaled air from mouth-to-mouth and nose, or mouth-to-mask ventilation

Each effective ventilation lifts the chest wall visibly. Expired air from the simulator escapes through the mouth, which causes the chest wall to fall to its original position. The simulator is not designed for exhaled air resuscitation (mouth-to-mouth/nose) when shared by more than one user, since this requires thorough cleaning between users, and also replacement of lung and airways.

Assessment of Heart Activity

When the Simulation Bulb Set is attached, pressing the small red bulb rhythmically creates simultaneous:

- (a) pulse beats in the sealed Umbilical Stump which extends from the simulator (pulse beats can be felt when the stump is held between forefinger and thumb), and
- (b) heart sounds in the area between the chest nipples (auscultation possible using a stethoscope).

Binding/Clamping and Cutting the Cord

To prepare for practicing cutting the cord, do the following:

1. Attach the connector end of the separate Umbilical Cord to the Umbilical Stump.
2. Apply an Umbilical Tie or Clamp around the cord, approx. 2 cm over and under the connector.
3. Simulate cutting the cord by detaching the cord at the connector, leaving the ties or clamps in place. (Actual cutting of the cord would quickly reduce the provided cord length.)

Chest Compression

NeoNatalie features natural chest compliance allowing chest compressions to be practiced as recommended for newborn babies and infants. Each chest compression which depresses the center of the chest wall for the recommended distance is recognized as acceptable, and immediately signalled by an audible click.

To Simulate Vital Signs

To help learners recognize the newborn baby's condition during scenario training, a dual function squeeze bulb connected by a twin pneumatic tube to NeoNatalie allows the instructor or informed co-trainer to simulate spontaneous breathing, umbilical pulse and heart sounds. A separate squeeze bulb with a sound unit allows simulation of birth cries.



Maintenance

Cleaning

Clean exterior with a soft cloth wet in soapy water. Wipe dry with a clean cloth or paper towel.



Note: Do not use chlorine to clean the simulator as this will degrade the material.

Refilling after Storage

After longer periods stored with water, some water may evaporate and the manikin may appear slightly floppy or with less strong muscle tone. Simply replenish the simulator with water using the NeoNatalie Suction (see steps 3 and 4 on page 2).

Fixing a Leak

If a leak occurs, first ensure the filling cap and air valve are closed correctly. If the body is punctured, use patch and glue from a bicycle repair kit to fix the hole.

Storage and Transport

NeoNatalie can be stored or transported in all temperatures between 0° - 40° C (32° - 104° F). If it is deflated, transport in the original cardboard box and storage pouch. For transportation of filled simulators, use the pouch or other suitable transport container.

Accessories

Standard Accessories for Basic Model

- Squeeze Bulb to simulate crying
- Umbilical Cord with 2 Umbilical Ties
- 2 Sheets to simulate towels
- Storage/Carrying Pouch
- Head Cap

Visit www.laerdal.com for more information.

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