Lucina childbirth simulator
Beyond exceptional

TouchPro CTG (fetal) monitor

For all the stages of labor and delivery, you can count on the wireless Lucina childbirth simulator. Lucina brings an impressive blend of features to the market including a more realistic and controllable birthing process, better articulation for labor and delivery maneuvers, and predicted APGAR scores based on the integrated maternal-fetal physiology. The childbirth simulator amazes with every detail including a lifelike birthing fetus with no connection ports and various delivery scenarios including shoulder dystocia.

Learners can manage shoulder dystocia by performing the McRoberts maneuver, suprapubic pressure, and the Woods' Screw and Rubin II maneuvers. Lucina is the only birthing simulator that automatically responds to these clinical interventions when they are correctly performed. Learners get a consistent experience every time until they master these skills. Furthermore, learners can perform the Zavanelli maneuver if the scenario calls for an emergency Cesarean section. Shoulder dystocia is among 10 pre-configured scenarios that come ready to operate with the childbirth simulator. These scenarios range from normal delivery to a broad range of obstetrical emergencies to ensure learners receive the best collection of evidence-based practice.

Two Patients in One Platform
Enhance and expand the use of Lucina by adding the non-gravid female module with five emergency Simulated Clinical Experiences (SCEs).

CAE Healthcare

Technical Specifications

Standard Equipment:

Wireless maternal manikin

Birthing fetus

Fetus to support Leopold's maneuvers

2 abdomens (1 for delivery, 1 for prepartum and postpartum)

Postpartum uterus

Static cervices for vaginal exams

Instructor's workstation with 3 configuration options

Müse operating software

TouchPro CTG monitor

3 patient profiles

10 Simulated Clinical Experiences (SCEs)
- A normal delivery
- An instrumental vaginal delivery
- Fetal tachycardia due to maternal pyrexia
- Breech delivery
- Fetal central nervous system depression by narcotics given to the mother
- Shoulder dystocia
- Major post-partum hemorrhage due to uterine atony
- Maternal cardio-respiratory arrest
- Eclampsia
- Umbilical cord prolapse

4 SCE development licenses

CAE Assurance value plan with customer and technical support, Training for Life™ and option to renew

Electronic user's guide

Optional Equipment

Additional battery and charger
- Fully and partially inverted uterus
- Uterine inversion
- Additional static cervices
- Abdominal cover for all fours birthing position (required for this position)

  Female Patient Module with non-gravid abdomen and 5 SCEs
- Chronic Heart Failure Exacerbation
- Acute Respiratory Distress Syndrome
- Sepsis with Hypotension
- Brain Attack w/ Thrombolytic Therapy
- Motor Vehicle Collision with Hypovolemic Shock

Manikin

69" H x 22" W x 15" D (175cm x 56cm x 38cm)
111lbs (50 kg)

Fetus

19" H x 6" W x 4.5" D (48cm x 15cm x 11.5cm)
5.5 lbs (2.5 kg)

Electrical

Input: 100-240V, 50/60Hz, 2.3A
Internal batteries: 14.4V, Lithium ion battery

Key Features

Obstetrical
- Integrated maternal-fetal physiological modeling
- Maternal aesthetics built from real patient measurements
- Realistic and consistant birth canal and vulva/perineum supports accurate fetal descent and rotation
- Multiple birthing positions: lithotomy, sitting and all fours
- Rectal suppository administration

Prepartum
- Vaginal examinations can be performed for evaluation of the cervix, fetal station, and position
- Static cervices represent various stages of dilation from closed to 5cm, and effacement from 0 to 90%
- Leopold's Maneuvers can be performed to determine the presentation and position of the fetus
- Epidural port with infusion and aspiration

Intrapartum
- Realistic palpable uterine contractions can be detected by palpating the fundus
- Controllable rate and duration of contractions
- Trendelenburg position with detection
- Left lateral tilt with detection
- Vertex and breech delivery
- McRoberts Maneuver with observable pelvic tilt is supported and detected in event log
- Suprapubic pressure support and detection with palpable symphysis pubis
- Supports delivery of posterior arm during shoulder dystocia
- Zavanelli maneuver with detection
- C-section team training support
- Rotation of anterior and posterior shoulder is detected in resolving shoulder dystocia (Rubin II and Woods' Screw Maneuvers)
- Forceps application
- Vacuum extraction without fetal cap
- Fetal heart sounds–5-locations based on fetal presentation
- Episiotomy
- Intact/fragmented placenta with realistic color, texture and flexibility
- Placenta can be delivered with gentle traction

Fetus
- Birthing fetus with no connection ports at head or buttocks
- Articulated fetal body neck (with lateral neck movement), shoulders, elbows, hips, and knees
- Clinically accurate fetal size with tactile realism–5th percentile on the WHO growth chart
- Fetal neck traction sensing
- Palpable fontanel and sagittal suture
- Fetal airway suctioning
- Programmable audible cry upon delivery
- Predicted 1-minute and 5-minute APGAR scores based on venous and arterial blood gas values
- Umbilical cord that can be cut and clamped

Postpartum
- Postpartum hemorrhaging, including Class III hemorrhage
- Contracted and boggy uterus
- Bimanual compression and uterine massage

- Uterine massage detected in event log
- Uterine blood released upon massage
- Inverted postpartum uterus
- Uterine reversion with purchase of optional uterine inversion module
- Intrauterine balloon insertion

Maternal Features

Airway and Breathing
- Realistic upper airway
- Advanced lungs with mechanical ventilation support
- Airway management and ventilation
- Supports endotracheal tubes, nasal-pharyngeal and oropharyngeal airways
- Spontaneous breathing
- Bag-valve-mask
- Lung auscultation: anterior and posterior with individual lung control
- Spontaneous chest excursion
- Positive pressure ventilation

Circulatory System
- Support for real 4-lead ECG that can be connected to simulator
- 12-lead ECG simulated in software
- Dynamic bilateral pulses: carotid, radial, brachial, and dorsalis pedis; pulse strength can be controlled

Cardiovascular
- Advanced CPR analysis that measures hand placement and compression depth, rate, and release, ventilation volume and rate and chest compression fraction, inspiratory-expiratory ratio, arterial blood pressure, coronary perfusion pressure, cerebral perfusion pressure, cardiac output and alveolar ventilation
- Electrical therapy and monitoring (ecg, pacing, cardioversion and defibrillation)
- NIBP - both audible and palpable
- Heart sounds

Nervous System
- Seizure is simulated with rhythmic movement of arms, rapid blinking, fraction
- Blinking reactive eyes
- Speech: live and pre-recorded

Fluids
- Postpartum bleeding tank (1.8 L)
- Bilateral IV arms
- Urinary catheterization
- Epidural infusion

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