CAE **Lucina**

For all the stages of labor and delivery.

Unrivaled realism and versatility for normal childbirth and emergency scenarios

CAE Lucina allows clinicians to practice pre-partum assessment, labor and delivery, emergency care and transport all within one wireless patient simulator. With modeled and validated physiology that is integrated with the fetal physiology, Lucina responds automatically to obstetric maneuvers and clinical interventions. Lucina offers the most complete training in shoulder dystocia management and supports mechanical ventilation. With the addition of the Female Patient Module, Lucina easily transforms into a non-gravid patient for practice of emergency scenarios.

Find out how CAE Lucina can rede ine your expectations at **caehealthcare.com**.

Your worldwide training partner of choice

CAE

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 2 device options
Müse operating software
TouchPro wireless emulated patient 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

Maternal Features

Obstetrical
- Integrated maternal-fetal physiological modeling
- Realistic and consistent birth canal and vulva/perineum support with 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
- Epidural port with infusion and aspiration

Intrapartum
- Realistic palpable uterine contractions
- 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
- 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
- Episiotomy
- Intact/fragmented placenta with realistic color, texture and flexibility

Fetus
- Fetal heart sounds–5-locations based on fetal presentation
- 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 blood released upon massage
- Inverted postpartum uterus
- Uterine reversion (optional uterine inversion module)
- Intrauterine balloon insertion

Key Features

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

Circulatory System
- ECG monitoring posts and interface with real ECG monitor
- 12-lead dynamic ECG display
- Dynamic bilateral pulses: carotid, radial, brachial, and dorsalis pedis; pulse strength can be controlled

Cardiovascular
- Correct hand placement detection
- Advanced CPR analysis (compression depth and rate, chest recoil, compression fraction, ventilation volume and rate)
- Compliant with 2015 AHA guidelines
- Pacing, cardioversion and defibrillation
- NIBP - both audible and palpable
- Heart sounds

Nervous System
- Seizure is simulated with rhythmic movement of arms and rapid blinking fraction
- SymEyes display patient symptoms and conditions, including jaundice, hemorrhage, keyhole pupil, cataracts and bloodshot or droopy eyes
- Blinking, panning and reactive eyes with multiple settings
- Speech: live and pre-recorded

Fluids
- Postpartum bleeding tank (2.0 L)
- Bilateral IV arms
- Urinary catheterization
- Epidural infusion

Sounds
- 2-way voice communication

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