



Laerdal
helping save lives



Limbs & Things
Skills training products for healthcare professionals



Improving maternal and neonatal care

SimMomTM

Birth Simulation Solutions

www.laerdal.com/simmom

Innovative simulation



Improving patient safety

Simulation has gathered increasing acceptance over the years as an integral part of healthcare training and as a fundamental approach to help improve patient safety.

In the field of obstetrics, it has been identified from a broad range of research into suboptimal patient outcomes that common contributory factors include: confusion in roles and responsibilities; lack of cross monitoring; failure to prioritise and perform clinical tasks in a structured, coordinated manner; poor communication and lack of organisation support.

Reference :The Joint Commission, 2004, Draycott et al. 2009

Preventing adverse outcomes during birth

Simulation training is unique in its ability to facilitate effective team training. By bringing together multi-disciplinary healthcare professionals in a simulation to rehearse both common birthing scenarios and emergency critical incidents; the early recognition of birth complications, correct diagnosis and rapid, coordinated action from the delivery team can be perfected for improved outcomes.



A complete solution

SimMom has been developed to provide a comprehensive simulation solution to support multi-disciplined staff in obstetric and midwifery care by enabling them to refine their individual skills and optimise their performance as a team.

With a range of Technical and Educational Services as well as pre-programmed scenarios to ease educator preparation time, SimMom provides the optimal simulation experience.

A progressive partnership

By integrating the strengths of the PROMPT birthing simulator from Limbs & Things with the ALS Simulator from Laerdal, SimMom provides the user with both anatomical accuracy and authentic simulation experiences that together, facilitate valuable learning experiences for a wide range of midwifery and obstetric skills.



Healthcare



EMS



Military



Professional Education

Caring for the mother...

SimMom

SimMom is an advanced full body birthing simulator with accurate anatomy and functionality to facilitate multi-professional obstetric training of delivery management.

Easy to use

Simple operation allows users to build basic to advanced level scenarios appropriate for required learning objectives.

Realism

SimMom provides for the realistic practice of multiple delivery positions and manoeuvres, teamwork, leadership and communication skills in a risk-free environment. Uterus modules add further realism and extend the application of the simulator.

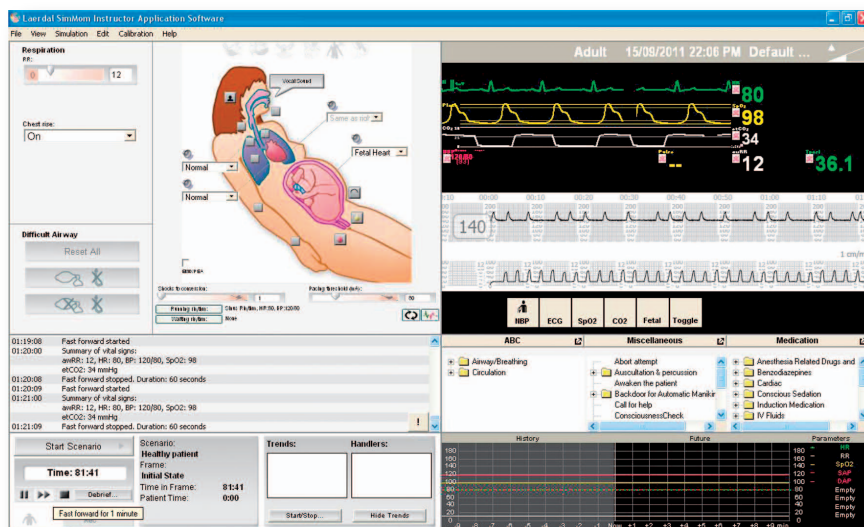
Standardised and consistent learning

Pre-programmed scenarios provide standardised training for consistent quality patient care.

Customisable scenarios and real time instructor controls allow for scenario adaptation to accommodate individual student or team needs.

Multipurpose

SimMom can be used as a task trainer or as a full body simulator. In addition, it can be used for non obstetric training as well as a female pregnant simulator.



SimMom Graphical User Interface

- Controlled via Instructor PC
- Highly configurable
- Easy to operate and control mother and foetus vital signs
- Run on-the-fly, customised or pre-programmed scenarios

Features and Benefits



SimMom can be used as a full body simulator or as a task trainer

Deliveries & drills

- Normal delivery
- Breech presentation
- Assisted deliveries
 - Forceps
 - Vacuum
- Shoulder dystocia
- Cord prolapse
- Eclampsia & pre-eclampsia
- Maternal collapse
- Post Partum Haemorrhage
- Sepsis
- Uterine inversion
- Ruptured uterus

Movement

- Seizure
- Able to position on all fours:
 - Realistic rotation of the shoulder and hip joints
 - Legs bend at the knees
 - Arms bend at the elbow
- Other positions:
 - Supine
 - Semi-recumbent
 - Left lateral
 - Legs in stirrups
 - McRoberts position

Airway features

- Obstructed airway
- Tongue oedema
- Right lung, left lung and both lung blockage
- Head tilt/Chin lift
- Jaw thrust
- Suctioning techniques (oral and nasopharyngeal)
- Bag-Valve-Mask ventilation
- Oropharyngeal and nasopharyngeal intubation
- Combitube, LMA and other airway device placement
- Endotracheal intubation (ET)
- Retrograde intubation
- Nasal and oral fiberoptic intubation
- Trans-tracheal jet ventilation
- Right mainstem intubation
- Surgical and needle cricothyrotomy
- Chest tube insertion

Pelvic components

- Atonic uterus modules (for PPH, uterine inversion and retained placenta)
- Fluids (e.g. blood, stained amniotic fluid and urine)
- Urine catheterisation/ instillation

Breathing features

- Simulated spontaneous breathing
- Variable respiratory rates
- Bilateral and unilateral chest rise and fall
- Normal and abnormal breath sounds
 - 4 anterior auscultation sites
 - Bilateral midaxillary sites

Cardiac features

- Extensive ECG library
- Heart sounds synchronised with ECG
- ECG rhythm monitoring
- 12 lead ECG display
- Defibrillation and cardioversion
- Pacing

Circulation features

- BP measured manually by auscultation of Korotkoff sounds
- Bilateral carotid and brachial pulse, radial (right side only) pulses synchronised with ECG
- Pulse strength variable with BP
- Pulse palpation is detected and logged

Chest compressions

- CPR compressions generate palpable pulses, blood pressure wave form, and ECG artifacts
- Detection and logging of a series of compressions

Other features

- Bowel sounds and foetal heart rate (not at the same time)
- Interchangeable pupils (normal, blown and constricted)
- Patient Voice
 - Pre-recorded sounds
 - Custom sounds
 - Instructor can simulate patient's voice wirelessly

Vascular access

- Pre-ported IV access (both arms).
- Subcutaneous and intramuscular injection sites

...and child



Birthing Baby

- Realistically modelled head with all head landmarks present (fontanelles and sutures).
- Head can be used for forceps deliveries (including rotational) and suction delivery (kiwi and ventouse).
- Head can be easily manipulated by the trainer and flexes naturally as it is pushed through the birth canal.
- Mouth for suction and Smellie-Veit (if required).
- The birthing baby's body is designed to allow it to be easily pushed through the birth canal.
- Bony prominences of the hips to support Lovset's manoeuvres.
- Realistically positioned landmarks - scapulae and clavicles.
- Arms and legs fully moveable to allow for manoeuvres required during deliveries - particularly breech and shoulder dystocia.
- Umbilicus and placenta (normal and retained).
- Foetal heart rate: normal, bradycardia and brachycardia.

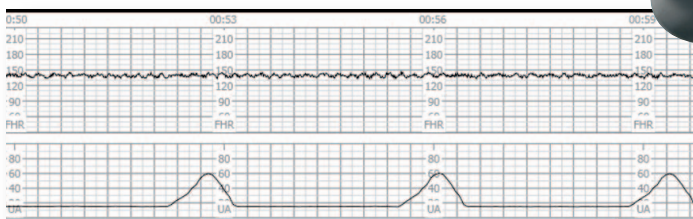
Electronic Foetal Monitoring - EFM/ Cardiotocography - CTG

- EFM graphic display Foetal Heart Rate waveform and Uterine Activity waveform.
- EFM is displayed on the patient monitor with mother's vital signs.
- Foetal monitoring is recorded and it is possible to scroll back to view on the patient monitor.
- The software allows the instructor to use the preset states as well as utilise the customised parameters.



Patient monitor

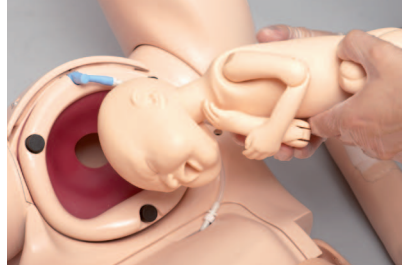
- Highly configurable
- X-Ray display
- Debriefing
- Touch screen
- Mother vital signs and EFM
- Oxygen saturation and waveform



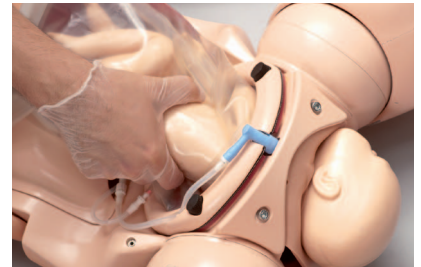
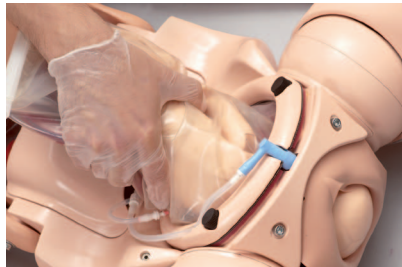
Modules

Four pelvic modules are available to facilitate baby delivery and post-partum scenarios. Modules are easily interchangeable by unscrewing and removing the pelvic ring clamp.

Delivery Modules



Cervix: The durable silicone cervix can dilate from 4 cm to 10 cm. The cervix module is used with the Birthing Baby for deliveries.

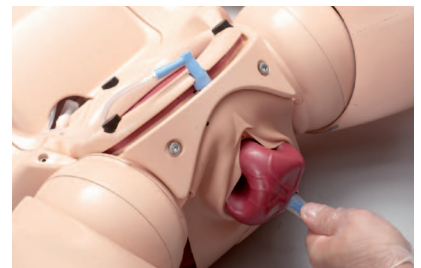
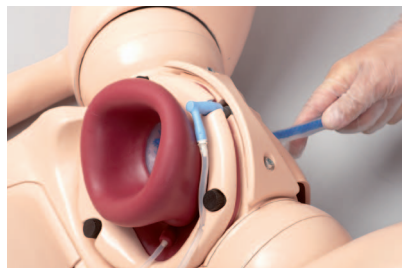


Amniotic bag: The Birthing Baby can be used in the amniotic bag to extend the level of realism during delivery and to simulate the rupturing of the membranes during delivery.

Post-Partum Modules



Post-Partum Haemorrhage: Atonic uterus can be recognised and managed. Pressurised fluid reservoirs allow for simulated blood and urine to be used during a PPH simulation. A placenta with retained lobe can also be placed inside the uterus and manually removed.



Uterine Inversion: Uterus inverts when traction is applied to the umbilical cord. This module allows for recognition of inversion as well as manual replacement.

Extend the learning experience ...for the continuum of quality care

SimNewB will facilitate the continuum of care for the newborn in the first 10 minutes of life. A full term birth infant complete with umbilical cord, SimNewB brings to neonatal clinical training an effective learning tool to prioritise clinical interventions - a principal learning objective in the treatment of the compromised newborn.

Available in Standard and Advanced versions, her clinical features include:

- Realistic anatomy
- Patent umbilicus
- Intraosseous access
- Realistic airway and breathing functionality
- Debriefing capability (SimNewB Advanced)
- Scenario building (SimNewB Advanced)



The **PROMPT Birthing Simulator** is an anatomically realistic task trainer and hybrid simulator. By focusing on specific birthing complications such as shoulder dystocia (supported by force monitoring), vaginal breech and instrumental delivery (forceps and vacuum) in addition to normal delivery, the learners can practise in a risk free environment.



Congenital Anomaly Kit

For use with either Newborn Anne or SimNewB, the Congenital Anomaly Kit gives further realism to the unique training needs of neonates born with congenital anomalies and birthing traumas.

SimNewB, the Congenital Anomaly Kit and the PROMPT Birthing Simulator are not included with your purchase of SimMom.

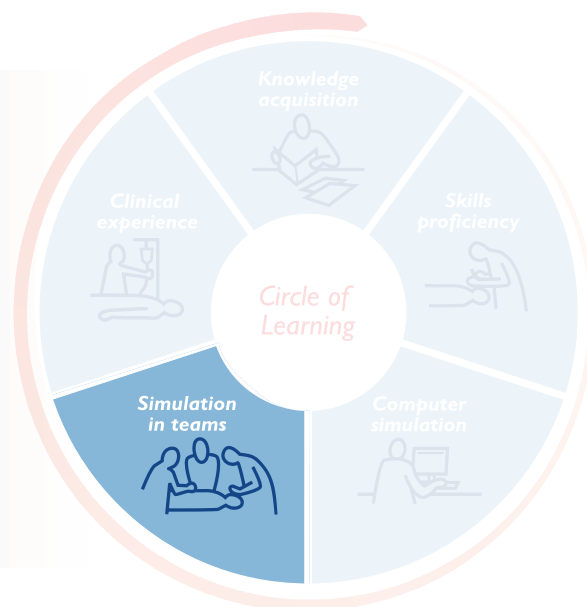
For further information about these products, please contact our Customer Service Department on 01689 876634 or visit our website at www.laerdal.com



The complete solution

There is so much more to simulation than the patient simulator itself. That is why when we create a complete solution, we give just as much attention to the scenarios you will want to run and the ongoing educational and technical services you will require, so that you get the most out of your simulation programmes now and for many years to come.

- **Patient Simulators** from Laerdal
- Laerdal **Courseware**
- Laerdal **Services**



Our complete line of Patient Simulators

The complete portfolio of Laerdal patient simulators offers quality training solutions for obstetric, neonatal, infant, paediatric and adult patient care. If you would like to find out how other healthcare organisations are incorporating our products into their training programmes, please visit the User Story section on our website.



Save time with Courseware

Internationally recognised as a leading expert in obstetric simulation, Professor Tim Draycott from Southmead Hospital, UK has developed scenarios for use with SimMom that will complement many of the core elements of obstetric training programmes worldwide.

Scenarios Include:

PROMPT PRactical Obstetric Multi-Professional Training

- | | |
|---|--|
| <ul style="list-style-type: none">• Normal Delivery• Breech Delivery• Maternal Collapse• Umbilical Cord Prolapse• Eclampsia / Pre-eclampsia | <ul style="list-style-type: none">• Post Partum Haemorrhage• Instrumental Delivery• Uterine Inversion• Ruptured Uterus• Shoulder Dystocia• Sepsis |
|---|--|

SimCenter offers easy access to validated content from worldwide simulation experts so you can take advantage of their experience and get the most from every learning opportunity. This is delivered in a fully integrated system that includes:



SimStore
SimDeveloper
SimManager
SimView

SimMom Advanced comes with a SimCenter Welcome Kit which includes a voucher to redeem free relevant scenarios on SimStore. Visit www.mysimcenter.com to learn how you can fully optimise your learning experience.

Your complete solution



Laerdal **Services...** supporting you all the way

*The Laerdal Services portfolio offers **comprehensive Educational Services** to support your implementation goals, and **extensive Technical offerings** to meet your simulator servicing needs. From simulator installation, routine preventive maintenance, product orientation and operation through to helping you realise your learning objectives and incorporating scenarios, Laerdal Services are available to help make your simulation-based training programme a success!*

Please contact your local Laerdal representative for full details about the following services:



Educational Services*

Introduction Course

On completion of this two-day course, participants will be able to prepare, operate the simulator's user interface, programme and run scenarios using an instructional design process.

Update Course

Ideal for refresher training and updating your simulation skills.

Continuous Education Courses

We also offer scenario programming courses and custom courses to help you build competency and proficiency with your simulator(s).

Technical Services*

Installation

A stress free set-up of the simulator combined with basic operator training at your facility.

Preventive Maintenance Programmes

The simplest way to control costs with planned services so that corrective repairs can be avoided when your training programmes can least afford them.

Extended Warranties

A valuable agreement option that serves to reduce or eliminate unexpected repair expenses. They can be purchased in single-year increments.

ValuePlus Service Programmes

For the ultimate in product services, we have created the ValuePlus Service programmes to provide comprehensive product protection and generous savings to suit flexible budgets and needs.

*Services available may differ between countries

Helping save lives

Laerdal has been at the cutting edge of innovative healthcare training since the launch of Resusci Anne in 1960. Today, this experience comes to the fore with the addition of SimMom into our comprehensive range of patient simulators. Through the creation of high quality simulation solutions, we are committed to increasing the potential and scope of this most valued training methodology in support of our long held mission - **helping save lives.**

www.laerdal.com

Bringing Skills Training to Life

Limbs & Things designs, manufactures and promotes clinical and surgical skills training products. The company is dedicated to improving patient care by supporting healthcare professionals in their training. Serving training markets in Clinical Skills, Women's Health and the Surgical Specialties, the company's goal is to produce products which allow clinical educators to successfully deliver their curriculum requirements for physical examination and procedural skills.

www.limbsandthings.com



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