# SimMan
# 3G PLUS

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**Laerdal**

helping save lives

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## SimMan 3G PLUS

Built on decades of expertise, SimMan 3G PLUS offers a fully immersive simulation experience with heightened realism.

Designed to represent a diverse range of patient scenarios to help prepare learners for real-world situations, SimMan 3G PLUS introduces interchangeable face skins for diversity training and full articulation for realistic patient handling. Now you can also train with real clinical devices, in compliance with current guidelines.

Training individually or in a team, learners can practice critical skills such as decision-making, team communication, and patient care. With this improved and realistic feature set, learners encounter complex medical cases all in a risk-free environment. SimMan 3G PLUS ensures that when it's real, they'll be ready.

## Features:
- Completely wireless and self-contained
- Internal electrical and pneumatic power
- Supplemental wired connectivity and power
- Wirelessly integrates with existing computer networks
- Swappable, rechargeable batteries
- Approximately 4 hours continuous operation in wireless mode
- Rugged and reliable for use in multiple environments

## Multiple Airway Skills/Features:
- Controllable open/closed airway; automatically or manually controlled
- Head tilt/Chin lift
- Jaw thrust w/articulated jaw
- Suctioning (Oral & Nasopharyngeal)
- Bag-mask ventilation
- Orotracheal intubation
- Nasotracheal intubation
- Combitube, LMA, and other airway placement
- Endotracheal tube intubation
- Retrograde intubation
- Fiberoptic intubation
- Transtracheal jet ventilation
- Needle cricothyrotomy
- Surgical cricothyrotomy
- Variable lung compliance (4 settings)
- Variable airway resistance (4 settings)
- Right main stem intubation
- Stomach distention

## Airway Complications:
- Detection of proper head position
- Can't intubate/Can ventilate
- Can't intubate/Can't ventilate
- Tongue edema
- Pharyngeal swelling
- Laryngospasm
- Decreased cervical range of motion
- Trismus

## Breathing Features:
• Simulated spontaneous breathing
• Bilateral and unilateral chest rise and fall
• CO2 exhalation
• Normal and abnormal breath sounds (5 anterior auscultation sites,
  6 posterior auscultation sites)
• Oxygen saturation and waveform
• Breathing Complications:
• Cyanosis
• Needle thoracentesis - bi-lateral
• Unilateral & Bilateral chest movement
• Unilateral, Bilateral & lobar breath sounds
• Chest tube insertion - bilateral

## Cardiac Features:
• Extensive ECG library
• Heart sounds - four anterior locations
• ECG rhythm monitoring (4 wire)
• 12 lead ECG display
• Defibrillation and cardioversion
• Pacing
• Circulation Features:
• Oscillometric BP measurement
• Carotid, femoral, brachial, radial, dorsalis pedis, popliteal and
  posterior tibialis pulses synchronized with ECG
• Pulse strength variable with BP
• Pulse Palpation is detected & logged

## Vascular Access:
• Bilateral IV access
• Bilateral humeral IO access
• Intraosseous access (tibia)
• Bilateral deltoid IM

## CPR:
- Compliant with 2020 Guidelines
- CPR compressions generate palpable pulses, blood pressure wave form, and ECG artefacts
- Realistic compression depth and resistance
- Detection of depth, release and frequency of compressions
- Real time feedback on quality of CPR

## Eyes:
- Blinking - slow, normal, fast and winks
- Open, closed and partially open
- Pupillary accommodation:
    - synchrony/asynchrony
    - normal and sluggish speed of response

## Other Features:
- Seizure/Fascicullation
- Bleeding
    - Simulation of bleeding at multiple sites
    - Arterial and venous
    - Vital signs automatically respond to blood loss & therapy
    - Works with various wound modules & moulage kits
- Urine output (variable)
- Foley catheterization
- Secretions
    - Eyes, Ears
    - Blood, Mucous, CSF, etc.
- Diaphoresis
- Bowel Sounds - four quadrants
- Patient Voice
    - Pre-recorded sounds
    - Custom sounds
- Instructor can simulate patient's voice wirelessly
    - Instructor Communication
- Multiple instructors communicate using integrated voice over IP
- Articulating arms
- SpO2 measurement bilateral
- Interchangeable head skins

## Pharmacology:

- Extensive drug formulary
- Automatic or programmable physiological responses

## System Features:

- Control multiple manikins from one interface
- Control simulations from anywhere on your network
- Multiple interfaces can control/observe a single simulation
- Manual Mode
    - Precise control "on the fly"
    - Design & program custom scenarios
    - Create custom events
    - Run pre-packaged scenarios
- Automatic Mode
    - Physiological & pharmacological models run pre-packaged simulations
    - Unique, simple controls increase/decrease difficulty & pace

- Simulation controls:
    - Fast forward
    - Pause
    - Rewind
    - Save/Restore
    - Profile Editor
    - Future prediction & patient outcome display
    - Integrated video debriefing
    - Data logging
    - Instructor comments

## Patient Monitor:

- Wireless
- Highly configurable
- Includes:
  - ECG (2 traces)
  - SpO2
  - CO2
  - ABP
  - CVP
  - ICP
  - Anesthetic Agent
  - PH
  - PTC
  - PAP
  - PCWP
  - NIBP
  - TOF
  - Cardiac Output
  - Temperature (core & peripheral)
  - Additional and programmable parameters
- X-Ray Display
- 12 Lead ECG Display
- Custom Image Display
- Custom Video Display

## Certifications:

UL, CE, FCC, CSA

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