



**Laerdal**<sup>®</sup>  
helping save lives

American Academy  
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™



Improving pediatric outcomes

**SimJunior**<sup>®</sup>

*Laerdal Pediatric Simulation Solutions*

[laerdal.com/simjunior](http://laerdal.com/simjunior)

# Realistic Pediatric Simulation



## Why simulation matters

Caring for pediatric patients is unique. Children's conditions can turn quickly; clinical decision making times are critical. Fast, accurate and coordinated team responses are essential if successful outcomes are to be achieved. How can pediatric health providers prepare for the complex and diverse clinical situations facing them?

As simulation becomes increasingly integrated into healthcare education as a core component of patient safety practice, new solutions are needed to prepare clinical staff for the challenges they face. SimJunior has been designed to meet these needs.

## Building self-confidence

Providing medical care to a child tests your skills and abilities. Children are different from adults.

- Their physiology is different
- They communicate differently
- The medical treatment they require is often unique to their age

The average medical professional experiences far fewer children than adults resulting in many feeling inadequately prepared when treating pediatric patients.

Simulation training with SimJunior will help to bridge the gap in experiential learning, building confidence and better preparing health providers for the challenges in pediatric care.



## A complete solution

Developed in partnership with the American Academy of Pediatrics, SimJunior represents a 6 year old that simulates a wide range of conditions from a healthy talking child to an unresponsive critical patient with no vital signs. From an accident scene through transportation to the emergency department, from the PICU to the ward, SimJunior makes hands-on training in realistic settings possible.

With a range of Technical and Educational Services, as well as validated simulation content, SimJunior presents a complete simulation solution for your pediatric training programs.

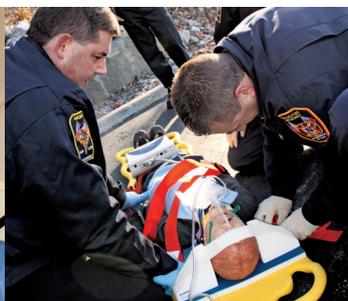
American Academy  
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DEDICATED TO THE HEALTH OF ALL CHILDREN™



Healthcare



EMS



Military



Professional Education

# Realistic training to achieve real results

## SimJunior®

SimJunior is a realistic, full-body, interactive simulator for the training of life-threatening pediatric emergencies.

### Easy-to-use

Whether using the SimPad® System or PC to run the SimJunior® Simulator, the software is easy and efficient to use for scenario based education. Intuitive software allows flexible management of all patient parameters. Combined with quality educational content from SimStore™, SimJunior can be easily integrated into any pediatric training program.

### Versatile

SimJunior allows learners to practice a broad range of pediatric skills in field, transport or in-hospital settings. Simulation training with SimJunior includes CPR, PALS, APLS, PEPP, first aid, child abuse awareness and much more.

### Interactive

The interactive manikin gives immediate feedback to interventions, allowing learners to think critically and adjust their treatment plan accordingly.



### Breathing

- Spontaneous breathing
- Observable chest rise
- Variable respiratory rates
- Multiple upper airway sounds synchronized with breathing
- Detect and quantify the volume of mechanical ventilations (including no ventilations)
- Bag-Valve-Mask capable
- Normal and abnormal breath sounds
- Breathing complications
  - Unilateral chest rise with right mainstem intubation
  - Unilateral and bilateral breath sounds
- Left and right lungs can be either closed or opened to allow ventilations

### Airway

The SimJunior airway is anatomically modeled from the lips to the trachea.

- Realistic airway with landmarks
- Oral and nasal intubation
- LMA or ET insertion
- Tongue edema (2 levels)
- NG tube (insertion only)
- Cricoid cartilage
- Head tilt and jaw thrust (no sensor)
- Nasopharyngeal and Oropharyngeal airways

### Sounds

- Heart
- Lung
- Bowel
- Patient voice
  - Pre-recorded sounds
  - Wireless microphone





When used with the SimPad System, SimJunior delivers a new level of simulation mobility making training more clinically relevant.

SimPad System operation provides:

- Wireless control of the simulator
- Touchscreen remote for easy operation
- Intuitive software with Automatic and Manual Modes

# SimJunior

## OPTIONS

SimJunior Simulator* ®	232-05050
SimJunior Advanced Software and License	232-11950
SimPad System**	200-30001
Patient Simulator Peripheral Kit Complete	225-09001

\* SimJunior is available in ethnic skin tones (B - Brown, T - Tan).  
 \*\* SimPad Link Box (200-30250) required for PC operation

# Features and Benefits

## Chest Compressions

- Compliant with 2010 Guidelines
- CPR compressions generate palpable pulses, blood pressure waveform, and ECG artifacts
- Detection and logging of a series of compressions in the data log

## Cardiac

- Defibrillation and cardioversion
- Pacing
- Extensive ECG library
- Multiple heart sounds synchronized with ECG
- ECG rhythm monitoring (3 leads)
- 12 lead ECG display (with optional patient monitor)

## Vascular Access

- IV access (right arm and hand)
- Intraosseous access (right tibia)

## Circulation

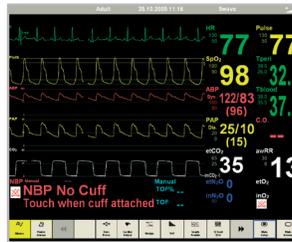
- Blood pressure measured manually by auscultation of Korotkoff sounds
- Bilateral carotid and unilateral brachial and radial (left side) pulses synchronized with ECG
- Pulse strength variable with BP
- Pulse palpation is detected and logged

## Additional Features

- Interchangeable pupils
  - normal, dilated, and constricted
- Convulsions
- Internal compressor

## Patient Monitor (Optional):

- Highly configurable
- Touch screen operation
- Simulates several parameters including:
  - Heart rate, ECG, SPO2, Respiration Rate, and more
- 12 lead ECG display



ELO Patient Monitor

SimJunior can be operated from a PC enabling automatic debriefing. The event log is synchronized with video, providing immediate, detailed feedback on performance which optimizes the simulation as an educational tool.

## PC operation provides:

- Web-camera recording
- Event log synchronized with patient monitor and in-room video
- Extensive vital signs library including ETCO2, PAP and more
- Radiology, Media, and Labs displayed on the ELO patient monitor



SimJunior Graphic User Interface (PC)



Interchangeable pupils simulate different physiological conditions



Automatic tongue edema enables simulation of difficult airways.



SimJunior allows users to identify signs of seizure and initiate management techniques.



The right tibia can be cannulated letting participants insert IO devices.



## SimJunior Simulator includes:

- Manikin
- Blood Pressure Cuff
- Set of Consumables
- Carry Case
- Directions for Use

## SimPad System includes:

- SimPad
- Link Box
- 2 AC Power Supplies
- Rechargeable Lithium-Ion Battery
- Wrist Strap
- Manikin Strap for Link Box
- Manikin Adapter Cable
- SimPad Sleeve
- USB Cable
- Ethernet Cable
- Directions for Use

## Patient Simulator Peripheral Kit Complete includes:

- Laptop PC
- Touch Screen ELO Patient Monitor
- USB Webcam
- Audio Cable
- Computer Mouse
- USB Hub

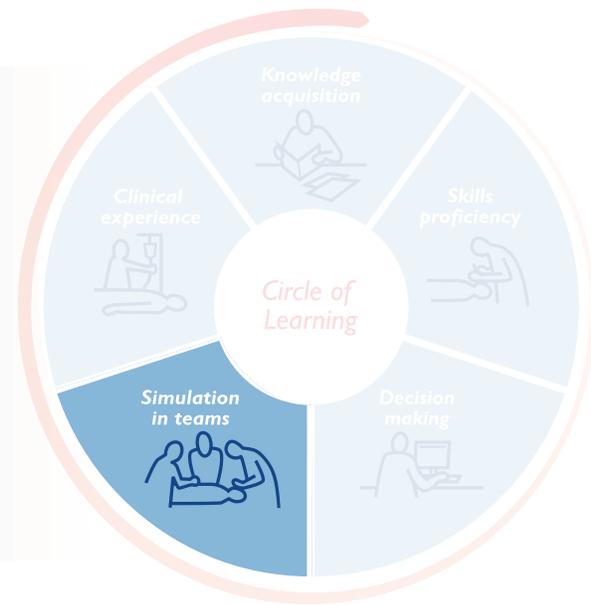
## Optional Accessories

- 210-05250 Hard-sided Transportation Case for Peripherals
- 232-05350 Hard-sided Transportation Case for Manikin
- 375-70150 IV Skin/Vein Set
- 231-00101 Replacement IO Leg
- 277-00001 Pediatric Trauma Modules
- 200-09201 12" Portable SimPad Patient Monitor
- 200-09301 17" Portable SimPad Patient Monitor

# 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 programs 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, pediatric and adult patient care. If you would like to find out how other healthcare organizations are incorporating our products into their training programs, please visit the User Story section on our website.



## Making Simulation Easier with SimCenter

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. You will find a wide range of scenarios that have been developed specifically for the SimJunior Simulator.



SimStore™  
SimDeveloper™  
SimManager™  
SimView™

Visit [www.mysimcenter.com](http://www.mysimcenter.com) to learn how you can fully optimize 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 realize your learning objectives and incorporating scenarios, Laerdal Services are available to help make your simulation-based training program 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, and program 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).

#### **SimPad System Courses**

In addition to SimJunior courses, SimPad courses are available to help introduce and integrate the SimPad System into your simulation based educational program.

\*Services available may differ between countries

### Technical Services\*

#### **Installation**

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

#### **Preventive Maintenance Programs**

The simplest way to control costs with planned services so that corrective repairs can be avoided when your training programs 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 Programs**

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

## 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 SimJunior 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.**

[laerdal.com](http://laerdal.com)

