RESPIRATORY AND CRITICAL CARE SIMULATOR

Human Patient Simulator

Practice respiratory and critical care training with the Human Patient Simulator (HPS). Known for its realism, HPS responds to real anesthetic gases, oxygen therapy and medications.

Available in two configurations (adult and pediatric), HPS delivers simulation so real that its lungs can consume oxygen and produce carbon dioxide. Other key features include:

- Eyes, ears and mouth secretions to detect trauma
- Range of motion in the wrists, elbows, knees and ankles
- Ability to interface with real clinical monitors and ventilators
- Left-arm blood-pressure management by auscultation and palpation

This high-fidelity simulator can also flow trigger or pressure trigger a ventilator to cycle and may be configured to display respiratory distress or agitation toward the ventilator.

BROADEN THE SCOPE; CUT OUT COSTS

Teach nursing, respiratory therapy and emergency medicine with a HPS designed specifically for health sciences. Streamlined for cost savings, this medical manikin offers targeted capabilities without the anesthesia delivery system or the gas accessory kit.

- 60 simulated clinical experiences (SCEs)
- 6 patient profiles
- 4 SCE development licenses

ANESTHETIC CARE IN ANY SITUATION

Knowing how to administer anesthesia in various settings is critical. HPS helps prepare health professionals for various encounters.

Abnormal breathing

Increase life-saving measures by using the realistic airway system to practice bag-valve-mask ventilation and intubation.

Fluid deprivation

Practice IV cannulation with flashback supported in the simulator's right arm, including the brachial, cephalic, basilic and antecubital veins.

Unconsciousness

Learn correct CPR hand placement, depth and rate of compressions with physiological feedback.

Learn more at **elevatehealth.net**

elevate HEALTHCARE

HUMAN PATIENT SIMULATOR

Technical Specifications

MANIKIN
Dimensions: 71" H (180.34 cm)
Approximate Weight: 75 lbs. (34 kg)

ELECTRICAL
Input: 100-220V, 50/60Hz, 2.3A

AMBIENT TEMPERATURE RANGE OPERATION
41°F to 104°F

HUMIDITY
0% to 90% noncondensing

LAB RACK
42.5" H x 27" W x 28" D
(108 cm x 68.6 cm x 71.1 cm)

UMBILICAL ASSEMBLY
12' long

HPS Simulator Package	
HPS anesthesia capable simulator	60 Simulated Clinical Experiences (SCEs)
Enhanced drug recognition system	4 SCE development licenses
Computer and control rack	First year manufacturer's warranty
Muse operating software	Installation and Training

Optional Accessories
Anesthesia delivery system
All-in-on patient computer
Instructor's wireless remote computer

Key Features & Benefits

Airway	
Head tilt/chin lift	
Tongue swelling, pharyngeal obstruction, laryngospasm and bronchospasm	
Intubation: orotracheal, nasotracheal, ET tubes, retrograde, fiber optic, right mainstem	
Gastric distention with esophageal intubation	
Supports ET tube and other airway adjunct placement	
Bag-valve-mask ventilation	Surgical/needle cricothyrotomy
Variable airway resistance and compliance	
Bilateral and unilateral bronchial occlusion	
Supports real capnography	

Anesthesia and Scavenging
Ability to administer anesthetic agents and medical gases
Lungs consume oxygen and produce carbon dioxide
Uptake and distribution of nitrous oxide and volatile anesthetics
Direct gas exchange within the lungs
Mechanical ventilation fully supported with automatic responses to CPAP, PSV, PEEP, SIMV, assist control modes and weaning protocols
Simulator will flow trigger or pressure trigger a ventilator to cycle
Simulator can be configured to fight the ventilator
Expires carbon dioxide automatically based on patient condition and interventions
Thumb twitch with standard peripheral nerve stimulator based on neuromuscular agent response

Articulation
Range of motion in the wrists, elbows, knees and ankles

Breathing
Bilateral and unilateral chest rise and fall
Bilateral chest tube insertion with fluid output and automatic resolution of physiology
Bilateral needle decompression with automatic resolution of physiology
Presence or absence of carbon dioxide exhalation
Spontaneous breathing
Variable lung and chest compliance
Pulse oximetry correlates dynamically to ventilation, oxygenation and perfusion

Cardiac
Defibrillation and cardioversion using live defibrillators: energy is automatically quantified and logged
Pacing (use of hands-free pads), current is automatically quantified and logged
12-lead dynamic ECG display
Simulated introduction and progressive insertion of pulmonary artery catheter displayed on patient monitor with appropriate waveforms

Circulation
Blood pressure measurement (left arm) by auscultation and palpation
Bilateral carotid, brachial, radial, femoral, popliteal, and dorsalis pedis pulses

CPR
Correct hand placement, depth, and rate of compressions are reflected in physiological feedback rather than virtual target on instructor's workstation
Adequate chest compressions result in simulated circulation, cardiac output, central and peripheral blood pressures, carbon dioxide return

Enhanced Drug Recognition System
Features barcode technology and extensive drug library
Standard syringes with barcoded labels including drug name and concentration
Barcode technology automatically identifies the drug, concentration and dose, requiring no interaction from the instructor

Neurological
Reactive pupils and blinking eyes
Convulsions
Automatic changes based on inadequate respiratory and cardiovascular conditions

Pharmacology System
Pharmacology system models automatically calculate the pharmacokinetics and pharmacodynamics for more than 50 intravenous and inhaled medications
All patient responses to drugs are automatic, dose-dependent and follow appropriate time course

Sounds
Pre-recorded sounds and voices
Customized sounds and voices via the provided wireless microphone

Trauma
Diagnostic peritoneal lavage with fluid return
Pericardiocentesis with fluid withdrawal linked to physiology
Eyes, ears and mouth secretions

Urological
Urine output
Urinary catheterization without fluids
Interchangeable male and female genitalia

Vascular Access
IV cannulation with flashback supported in right arm including the brachial, cephalic, basilic, and antecubital veins
Right deltoid intramuscular injection site available
Right jugular and left femoral IV lines support infusions

elevate HEALTHCARE

Reduce medical errors. Improve performance. Enhance patient care.