



**MEDICAL-X**  
ADVANCING SIMULATION

**ADAM-X**

**Xtreme**

Adult patient simulator



# The ADAM-X Xtreme

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**ADAM-X Xtreme** is the most advanced and modern full-body adult patient simulator!

Faithful reproduction of a man's anatomy and physiology, ADAM-X Xtreme has distinctive and unique human characteristics, offering a fully immersive simulation experience.

Carefully designed to prepare learners for real-world events, ADAM-X Xtreme is ideal for medical training, advanced life support scenarios, and simulation of countless clinical cases.

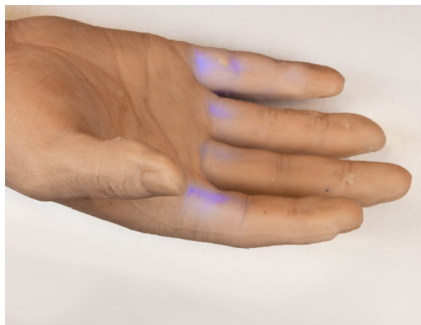
**ADAM-X**

**Xtreme**

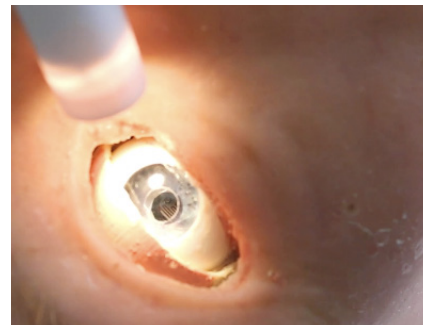
Adult patient simulator



ADAM-X has **flexible joints** and a **human-like soft skin** made with our unique special silicone blend.



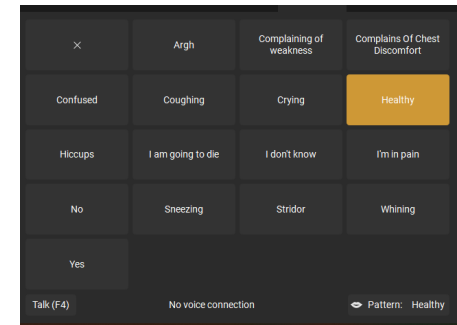
Visual clinical conditions coloring ADAM's face and fingers



Blinking eyes and pupillary light reflex



Tears, drooling, sweating, and ear secretion



Vocal sounds: pre-recorded and voice reproduction wirelessly

## Tetherless and Wireless

With internal electrical power and air compressor, ADAM-X is fully operational on battery power.

# Airway



- **Basic and Advanced Airway Training**
- Airway maneuvers: head tilt, chin lift, jaw thrust
- Airway management with multiple devices
- Airway complications: Tongue and laryngeal edema + laryngospasm

- **Needle and surgical cricothyrotomy** with realistic bleeding



With an accurate **pulmonary system**, ADAM-X can breathe spontaneously with variable rate and depth, be ventilated with bag-valve-mask, or be attached to real mechanical ventilators.



## Pneumothorax and bilateral **needle decompression**



## Other pulmonary features:

- Variable lung compliance and airway resistance
- Thoracic, diaphragmatic, and paradoxical breathing
- Chest tube placement

# Cardiovascular



- 14 sites to palpate **central and peripheral pulses**
- Pulses strength varies with blood pressure
- Pulses palpation **detected by sensors** and recorded by the software



**Bluetooth stethoscope** for auscultation of heart, lungs, and abdominal sounds



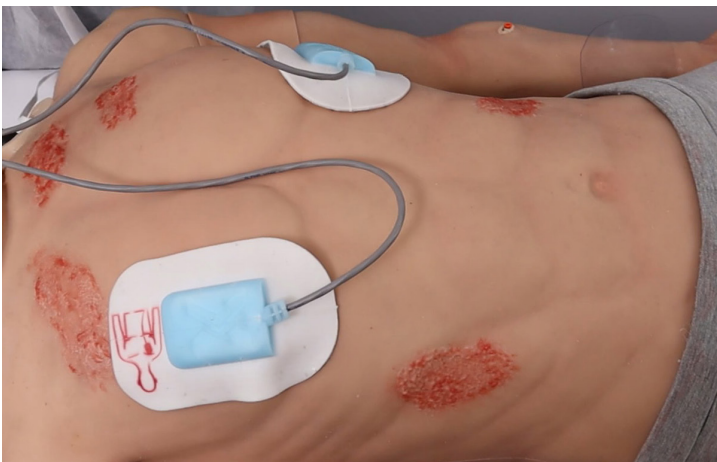
Blood pressure measurement with a real cuff and **audible Korotkoff sounds**



With anatomical landmarks and realistic compression resistance, ADAM-X Xtreme is an ideal solution for **CPR training**.

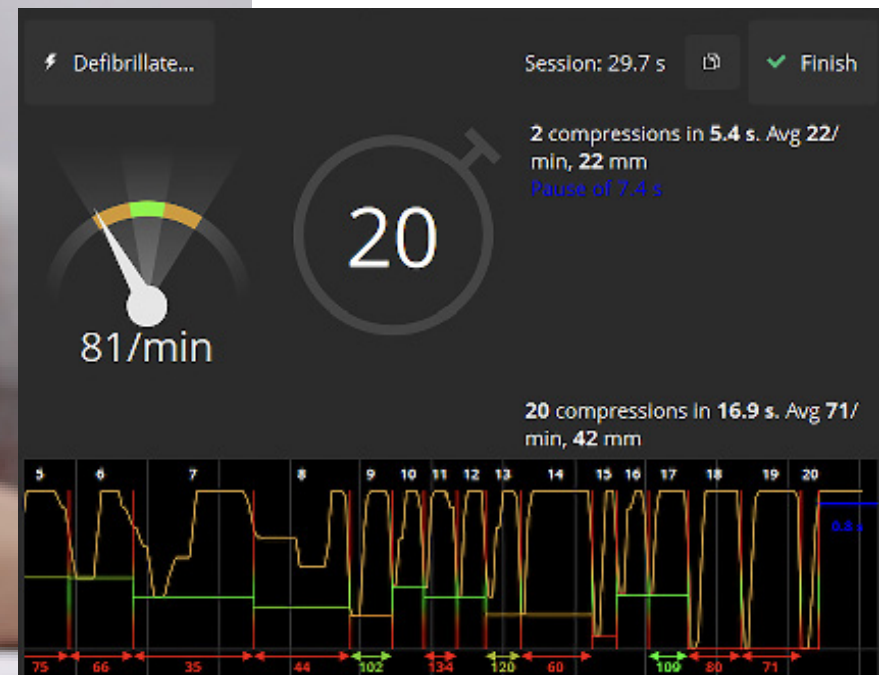
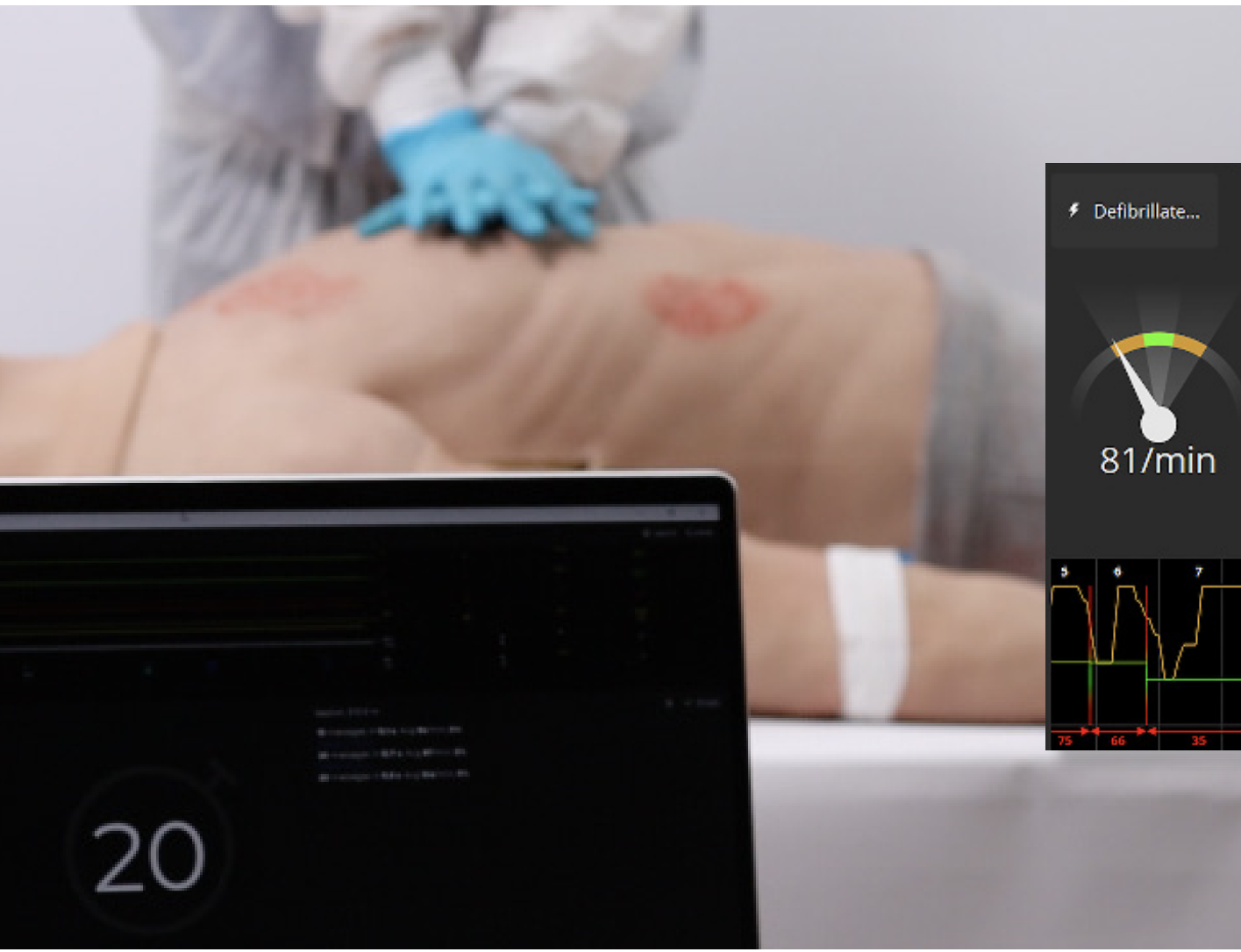


**Defibrillation** and **cardioversion** can be performed with real devices and energy.



# Resuscitation

The software detects hands position, displays compression and ventilation counters, and gives **real-time feedback on CPR quality**: frequency, depth, and release between compressions.





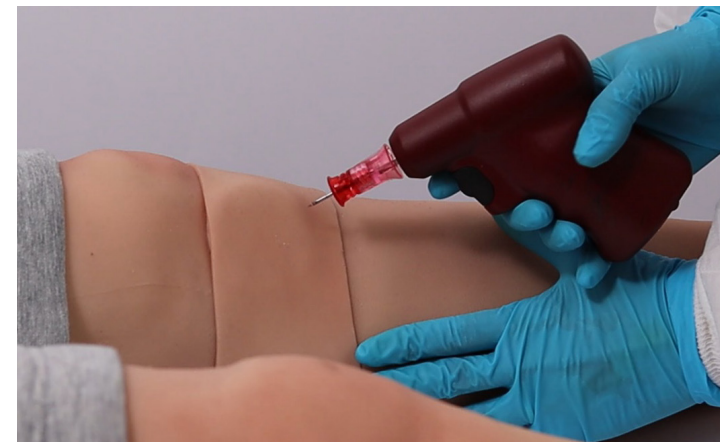
And much more...



**IV injections** administration and automatic drug recognition. Supplied with more than 50 syringes



**Urethral catheterization** with fluid return



**Intraosseous Access** in the tibia and humerus

# User interface

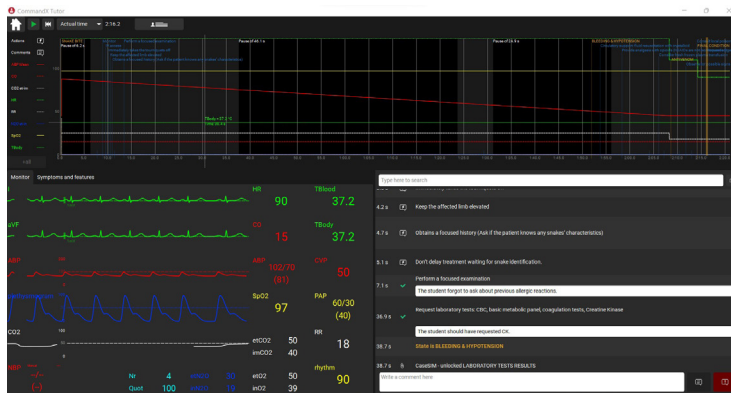
**Command-X** is our user-friendly touchscreen interface offers manual and automatic modes. The instructor can control scenarios and parameters by wireless operation and remote control.

## Scenario Editor

14 pre-programmed evidence-based scenarios that can be easily edited + Scenario Editor to create your own completely customizable scenarios.

## Debriefing

All states, actions, activities, and added comments during a scenario or CPR training are logged in for posterior debriefing.



## Multi-parameter patient monitor

From basic vital signs to advanced monitoring parameters, the wireless bedside monitor displays all the patient's information.





Our **optional trauma accessories** increase the realism of the scenario, transforming the simulated training into an immersive and memorable learning experience.

*All the wounds can be personalized. Contact us to learn about all the possibilities and customized solutions offered.*

- Trauma module set
- Hemorrhage control
- Amputated limbs
- Simulated blood
- Wound care

**Amputated leg**



**Amputated arm**



**Fractured leg**



**Gunshot leg**



**Burnt arm**



**Trauma arm laceration**



**Shrapnel wound chest**



**Gunshot chest**



# Specifications

## General

- Full-body adult male patient simulator: 1.80m – 80kg
- Faithful reproduction of a man's anatomy and physiology
- Life-like looking with soft silicon skin
- Three options of skin tone
- Realistic movements of the limbs and joints
- Supports supine, lateral, and sitting positions
- Internal electrical power and air compressor
- Tetherless and wireless
- Simulator can work both on battery or tethered power supply
- Operational on internal battery power for up to 3 hours<sup>1</sup>
- Bluetooth stethoscope simulator
- Easy to clean and disinfect

## Airway

- Airway maneuvers: head tilt, chin lift, and jaw thrust
- Realistic anatomy: tongue, epiglottis, vocal cords, trachea, and esophagus
- Magnetic front teeth can be broken with the laryngoscope and put back
- Oro- and nasotracheal intubation
- Airway management with multiple devices
- Oral and nasal fiberoptic intubation
- Sensors detect esophageal intubation and right main bronchus intubation
- Needle and surgical cricothyrotomy
- Transtracheal jet ventilation and retrograde intubation
- Airway complications: lock-jaw, tongue edema, laryngeal edema, and laryngospasm
- Can't intubate/Can ventilate scenario & Can't intubate/Can't ventilate scenario

## Breathing

- Thoracic, diaphragmatic, and paradoxical breathing
- Ventilation sensor with volume measurement
- Spontaneous breathing with variable rate and depth
- Ventilation with bag-valve-mask
- Can be attached to real mechanical ventilators
- Variable lung compliance and airway resistance
- Auscultation of the lungs: normal and adventitious sounds
- Anterior, lateral, and posterior auscultation sites
- Pneumothorax
- Bilateral thoracic needle decompression and chest tube placement

## Cardiovascular

- Blood pressure measurement with a real cuff and audible Korotkoff sounds
- Adjustable heart rate, blood pressure levels, and ECG rhythm
- Bilateral carotid, brachial, radial, femoral, popliteal, posterior tibial, and pedal pulses synchronized with ECG
- Pulse strength varies with blood pressure
- Pulses palpation detected by sensors and recorded by the software
- ECG monitoring using real devices
- Auscultation of the heart – normal and abnormal sounds
- Extensive ECG library and 12-lead ECG display



## Resuscitation

- Anatomical landmarks with realistic compression resistance
- Compressions generate ECG waves and palpable pulses
- Compression counter & ventilation counter and measurement
- Feedback on CPR quality: frequency, depth, and release between compressions
- Defibrillation and Cardioversion using real devices and real energy
- Sensors detect the position of the hands and defibrillator's pads
- Detailed CPR evaluation and debriefing

## Head, Torso & Limbs

- Blinking eyes and pupillary light reflex
- Adjustable eyelids movement and degree of pupil dilation
- Tears, drooling, sweating, and ear secretion
- Swelling face
- Pre-recorded vocal sounds
- Create and store other vocal sounds in any language
- Reproduce patient voice wirelessly
- Simulation of cyanosis, jaundice, fever, bruises, and paleness coloring the face and fingers
- Tremble/Convulsion movements
- Esophageal edema and stomach distension
- Auscultation of bowel sounds - normal/abnormal
- Urethral catheterization with fluid return (water or blood)
- IV access on the right arm
- Supplied with more than 50 syringes
- Intraosseous insertion on the left tibia

## Bluetooth Stethoscope Simulator

- Listen to isolated sounds without background noise
- 36 auscultation points on the torso
- Software feedback on the placement of the stethoscope simulator

## User Interface

- Manual and automatic modes
- Wireless operation and remote control
- Separate views of tutor interface and patient monitor
- User-friendly scenario set-up functions
- 14 pre-programmed evidence-based scenarios that can be easily edited
- Scenario Editor Software: create new customizable scenarios
- ECG Editor Software: create new 12-lead ECGs
- Sound Editor Software: create and upload custom sounds: voice, heart, and lungs sounds
- Automatic drug recognition
- Sensors detect and record student's actions
- All states, actions, activities, and added comments are logged in for posterior debriefing
- Built-in AVI solution: connect up to three webcams
- Wireless bedside monitor with a configurable display
- All parameters can be set by the instructor in real-time
- View custom files: laboratory results, patient history, images of X-ray, CT, ultrasound, etc.

1. *Battery life may vary depending on active settings.*

*\* Specifications may be subject to change during development.*

*Please contact Medical-X for the latest specifications.*

# Contact us

## Headquarter

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## Support

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Available 9:00 a.m. to 6:00 p.m. CET  
timezone on weekdays, contact us at:

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**info@medical-x.com**

## Warranty

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While we're confident that the **MEDICAL-X's** products are highly user-friendly, we also understand that this is an advanced product with the need for strong support and service. That's why we provide application training and guarantee the product for two years. Additional service packages can also be delivered.



## About Medical-X

MEDICAL-X is a Dutch company based in Rotterdam, the Netherlands, specialized in the design, development, manufacturing, marketing and distribution of simulation products for medical teaching and training.





Our mission is to provide healthcare professionals with simulation-based training solutions and cutting-edge technological simulators that are cost-effective and time-efficient to teach and train clinical skills without risk to actual human patients.

## Design philosophy

Realism is the key to our design philosophy! Simulator training gives medical teams the experience, competence, and confidence they desire. Realism adds to the quality and efficacy of training.

Our products are developed through extensive feedback programs to produce an engaging experience for healthcare professionals. Form and function come together in a realistic and interactive simulator, ready to be used in training for all levels of care.



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Rotterdam, The Netherlands

## Turnkey projects

**MEDICAL-X** offers turnkey projects for simulation training organizations. Our support can be for any stage of setting up or running a simulation center/department. Let us know about your plans and perhaps we can help you set-up the training environment you always dreamed of.

## Follow us

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And on social media:





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