

Endoscopic LumbarBox

10 Operable Levels
From L1 to S1 - Left/Right

Pathologies

Medial / Paramedian / Foraminal
herniations, grouped into 3 different
Spine Levels.

Features



Modularity

10 Operable Levels in 1 single simulator | 3 Different Spine Levels
Two disposable levels: Skin Level + Spine Level



Surgical Realism

With this simulator, we have achieved the highest level of realism ever seen in
endoscopic surgery.



Water Management

Endoscopic LumbarBox is designed to manage high irrigation flows through a
modular water collection system.



Mobile X-Ray*

Get the Neurosurgery App* to simulate fluoroscopy with Mobile X-Ray Technology
to set your trajectory and navigate your endoscope in real time.

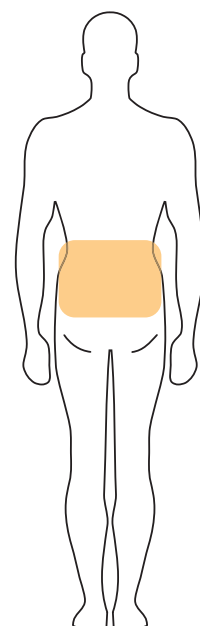
*Attention: Mobile X-Ray module works on Apple Devices only.



Standard X-Ray

The simulator is compatible with standard X-Ray, fluoroscopy and CT.
Scan it and visualize the positioning of the fixation implants.

*Feature available upon request



How it is composed



Skin Level

Disposable

Patient Positioning Tag
Reference to locate patient's head and feet



User Guide QR Code

Scan for Tutorials & Documentation

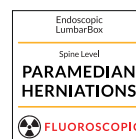
Spine Level

Disposable

Black Frame

Reusable

Water Retaining Walls
Reusable



Spine Level Tag
To identify the Spine Level Pathology Set

Water Collection Base
Reusable



Patient Positioning Tag
Reference point to position the Skin Level correctly

Water-level Sensor
The sensor sounds an alarm if the water inside the base reaches a too high level.

The highest level of detail

10 operable levels in 1 single simulator
2 Different Spine Levels
2 Compatibility Versions: Standard
X-Ray compatible and non-compatible

PROCEDURES:

- **PELD** (Percutaneous Endoscopic Lumbar Discectomy)
- **TELD** (Transforaminal Endoscopic Lumbar Discectomy)
- **Monoportal and biportal procedures**
- **Translaminar procedures**



Spine Level Bone Augmentation

NB: This Spine Level is available only **with Standard X-Ray** compatibility



Surgical Capabilities

Developed for Vertebroplasty procedures.

Pathologies are not available in this Spine Level



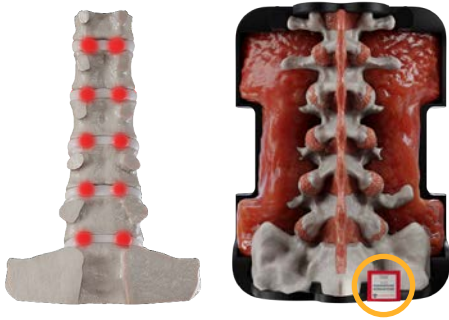
Fluoroscopic Version

Compatible with Standard X-Ray

Non Fluoroscopic Version

Not available for this Spine Level

Spine Level Paramedian Herniations



Surgical Capabilities

- Multiple endoscopic laminectomies and flavectomies (L1-L5)
- Multiple endoscopic discectomies
- Nerve root decompression through discectomies feasible from L1 to S1 (5 discectomies, L1-2, L2-3, L3-4, L4-5, L5-S1)

Pathologies

L1-L2 | Bilateral paramedian herniation
L2-L3 | Bilateral paramedian herniation
L3-L4 | Bilateral paramedian herniation
L4-L5 | Bilateral paramedian herniation
L5-S1 | Bilateral paramedian herniation



Non Fluoroscopic Version

Not compatible with Standard X-Ray



Fluoroscopic Version

Compatible with Standard X-Ray

Spine Level Mixed Pathologies



Surgical Capabilities

- Multiple endoscopic laminectomies and flavectomies (L1-L5)
- Multiple endoscopic discectomies
- Nerve root decompression through discectomies feasible from L1 to S1 (5 discectomies, L1-2, L2-3, L3-4, L4-5, L5-S1)

Pathologies

L1-2 Left | Paramedian Herniation
L1-2 Right | Extraforaminal Herniation
L2-3 | Central Herniation
L3-4 Left | Foraminal Herniation
L3-4 Right | Paramedian Herniation
L4-5 Right | Extraforaminal Herniation
L5-S1 Left | Foraminal Herniation
L5-S1 Right | Paramedian Herniation



Non Fluoroscopic Version

Not compatible with Standard X-Ray



Fluoroscopic Version

Compatible with Standard X-Ray

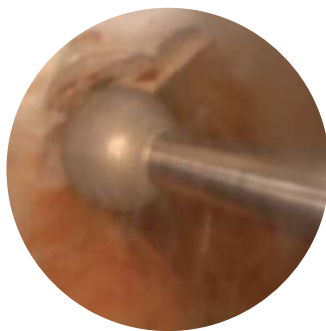
Surgical Realism



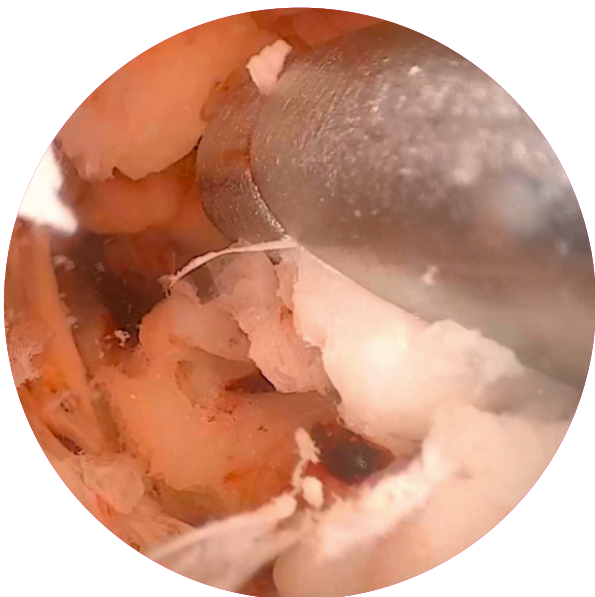
1. Ultra-accurate anatomy
2. Hyper-realistic materials
3. Designed for wet and dry simulation

ANATOMY INCLUDED IN THIS APPROACH:

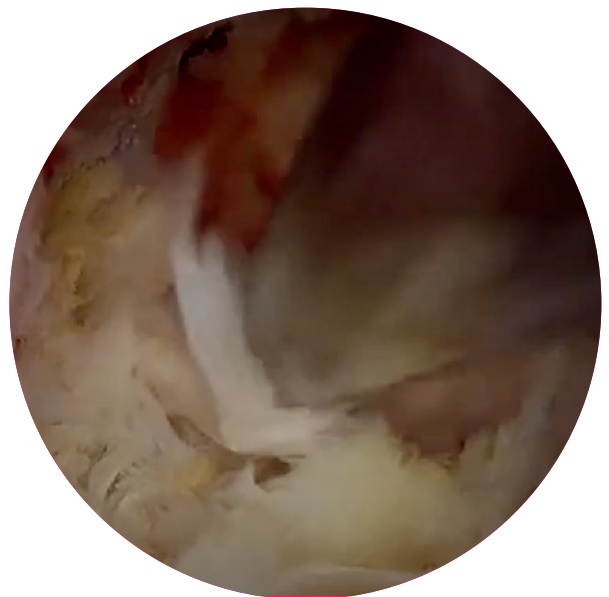
- Skin
- Subcutaneous fat
- Paravertebral muscles
- Vertebrae from L1 to S1
- Flaxum Ligament
- PLL (Posterior Longitudinal Ligament)
- ALL (Anterior Longitudinal Ligament)
- Spinal cord
- Nerve roots
- Peridural fat
- Peridural fat



Simulation

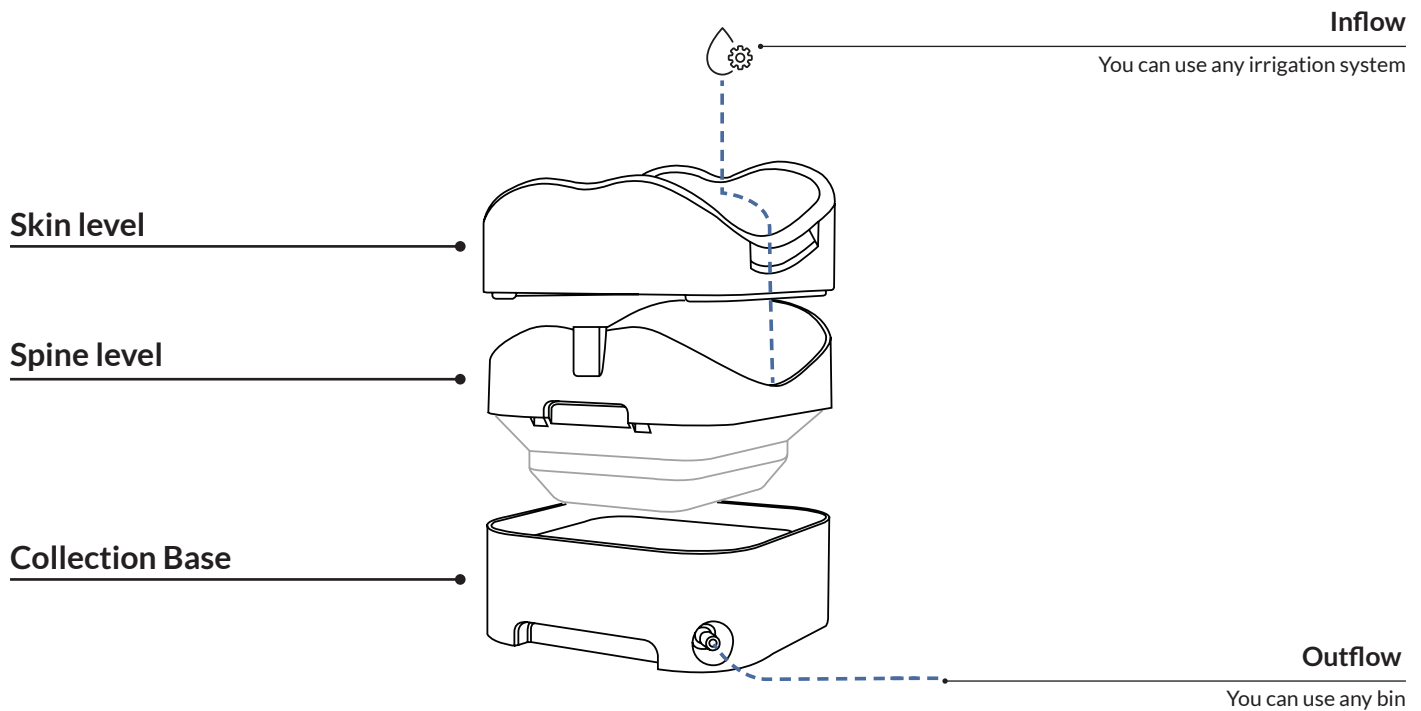


Real



Water Managment

The simulator is equipped with an internal water drainage and outflow system, facilitating the management of high endoscopic flows anywhere and preventing any leakage during surgical procedures.

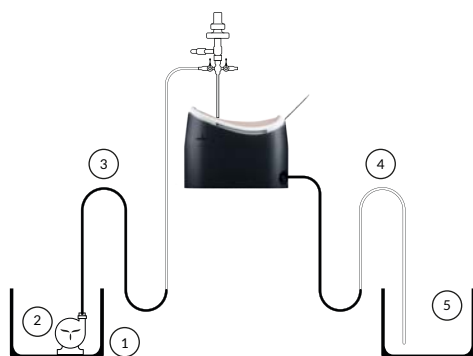


UpSurgeOn Irrigation System*

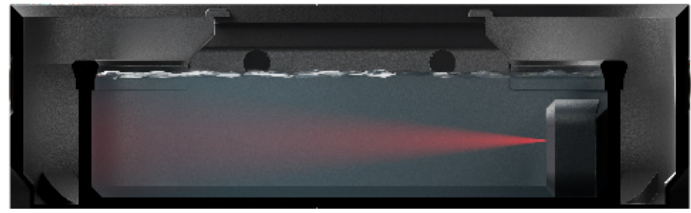
If requested, a complete Irrigation KIT that includes the following items can be provided:

1. Inflow Container
2. Water Pump
3. Pipe
4. Drainage Pipe
5. Outflow Container

**Sold separately*



New Improvements



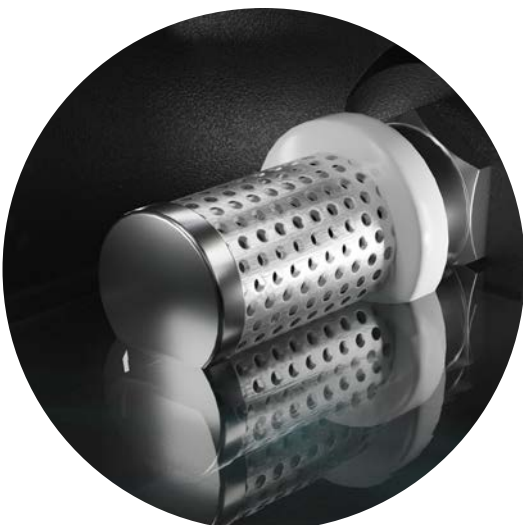
Water Level Sensor

The sensor sounds an alarm if the water inside the base reaches a too high level.



Water Retaining Walls

New removable system to accelerate water pre-filling.



Filter

Metal filter with improved fittings and better sealing.

Mobile X-Ray

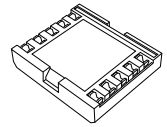
Get the Neurosurgery App* to simulate fluoroscopy with Mobile X-Ray Technology to set your trajectory and navigate your endoscope or any other tubular instrument in real time.

**Attention: Mobile X-Ray module works on Apple Devices only.*



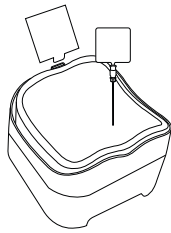
Neurosurgery App*

+

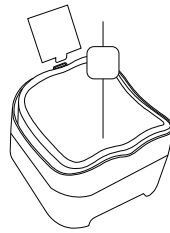


Mobile X-Ray Kit

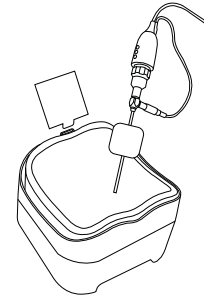
Spine needle



K-wire



Custom instrument



Endoscope with AR Marker

Simulator

Endoscopic Monitor

Your Device with Camera and aApp

Your Device with Mirroring

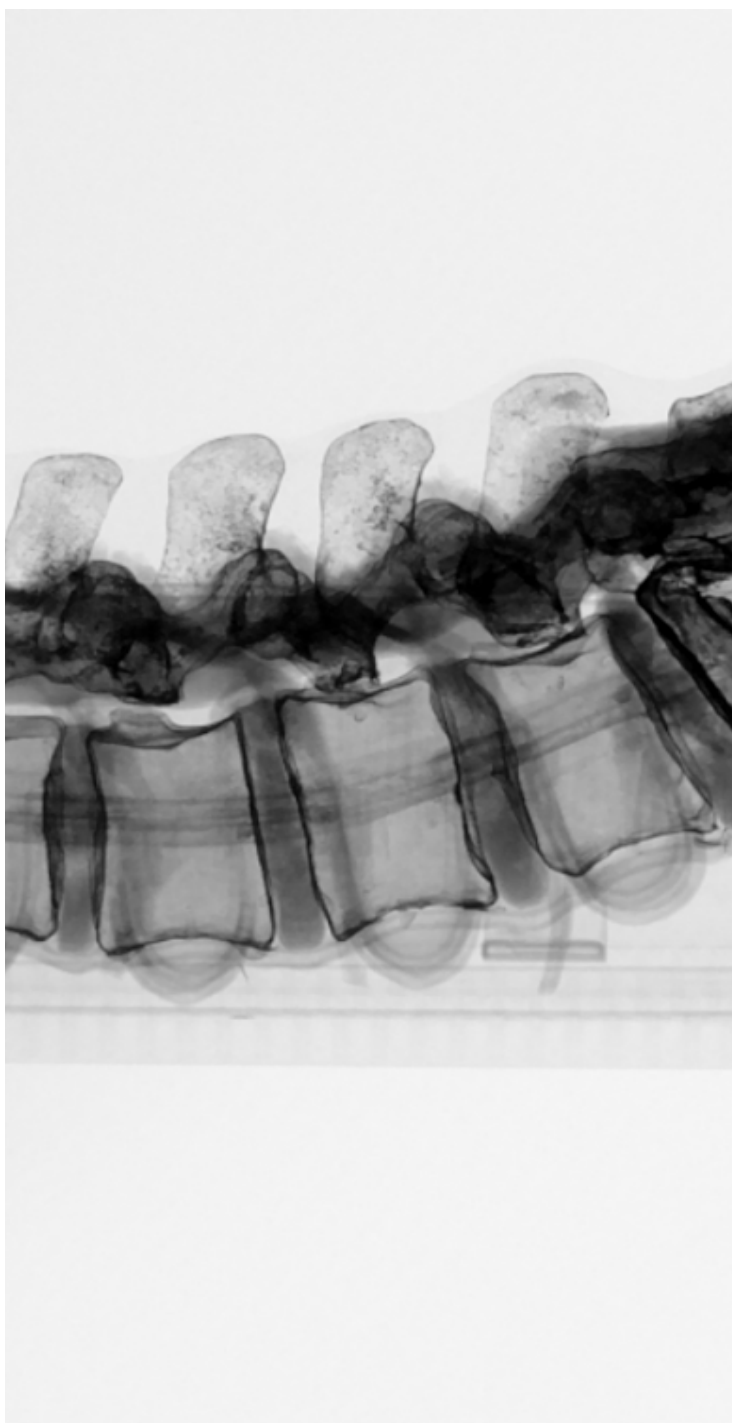
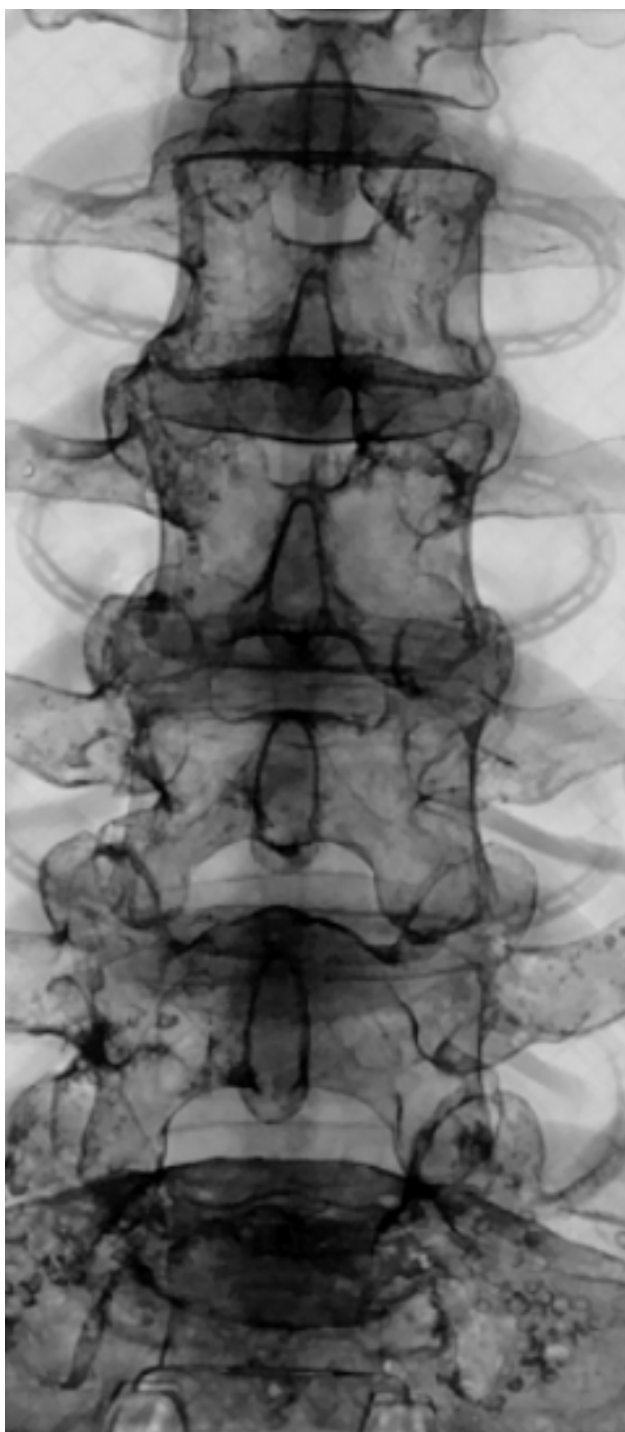


Standard X-Ray*

The Endoscopic LumbarBox is compatible with standard X-Ray, allowing verification of the correct execution of your exercise.

The Endoscopic LumbarBox, in addition to the Mobile X-Ray Feature, is compatible with Standard X-Ray. Thanks to its compatibility, fluoroscopies can be performed at the end of your exercise to verify the positioning of the fixation implants, and the success of your surgery.

**Feature available upon request.*



Maintenance and Safety Instructions

The use of gloves, protective glasses and mask is mandatory to protect you from potential injury while drilling and helps maintain the cleanliness of the simulator and tools.



WEAR
GLOVES



WEAR
GLASSES



WEAR
MASK

General Warnings

THIS PRODUCT CONTAINS METAL MAGNETS:

Do not put this product into a Magnetic Resonance Scanner (MRI) or use it with any equipment that operates with electromagnets to avoid damaging the product or the MRI equipment.

- Use the drill ONLY when the Skin Level is assembled over the Spine Level
- Wear mandatory safety equipment while using the simulator
- This product requires adult supervision during assembly
- Never leave children unattended with the box to prevent accidents or misuse
- Never put boiled or hot liquids above the tools and the simulator
- Never put chemical substances above the tools
- Wash with water, do not use chemical products
- Do not use boiled or hot water for the irrigation system
- Keep the product away from any heat source
- Always drain the water from all components after use and dry them to prevent mold growth
- Store the product in a dry environment

What is included

- 1x Workstation:
Iliac Crests (x2), Water Collection Base, Black Frame, Water-level Sensor, Water Retaining Walls, Outflow tube, Support for Outflow Tube
- 1x Skin Level
- 1x Spine Level
- Mobile X-Ray Kit
- Waterproof bag for product storage
- USB with MRIs for Navigation
- Quick Start Guide for Endoscopic Series



Reach out to us

If you wish to acquire further information, please contact us at the following contact details according to your country of origin.

Europe

excluding UK & Ireland

UpSurgeOn

upsurgeon.com

info@upsurgeon.com

USA, UK & Ireland

Inovus Medical

inovus.org

info@inovus.org

Mexico

Artimedica

artimedica.com.mx

artimedica@artimedica.com.mx

Brasil

Spinetech

spinetech.com.br

mozart@spinetech.com.br

Hong Kong

Montsmed

monstmed.com

timothykong@montsmedhk.com

South Korea

C.M. Blue

cmblue.co.kr

thjosephkim@cmblue.co.kr

Rest of the world

UpSurgeOn

upsurgeon.com

info@upsurgeon.com

Follow UpSurgeOn

UpSurgeOn is a hi-tech company specialized in psychomotor skill augmentation in microsurgeries through the use of bleeding-edge virtual and physical simulation technologies.



Go to website www.upsurgeon.com