

# Endoscopic LumbarBox

2 Versions: Standard & Extended  
4 Sets of Pathologies  
10 Operable Levels  
From L1 to S1 - Left/Right



## Pathologies

Medial / Paramedian / Foraminal herniations and canal stenosis, grouped into four different Pathology Sets.



## Features



### Modularity

10 Operable Levels in 1 single simulator | 4 Different Sets of Pathologies  
Two disposable levels: Skin Level + Spine Level



### Surgical Realism

With this simulators, 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.*

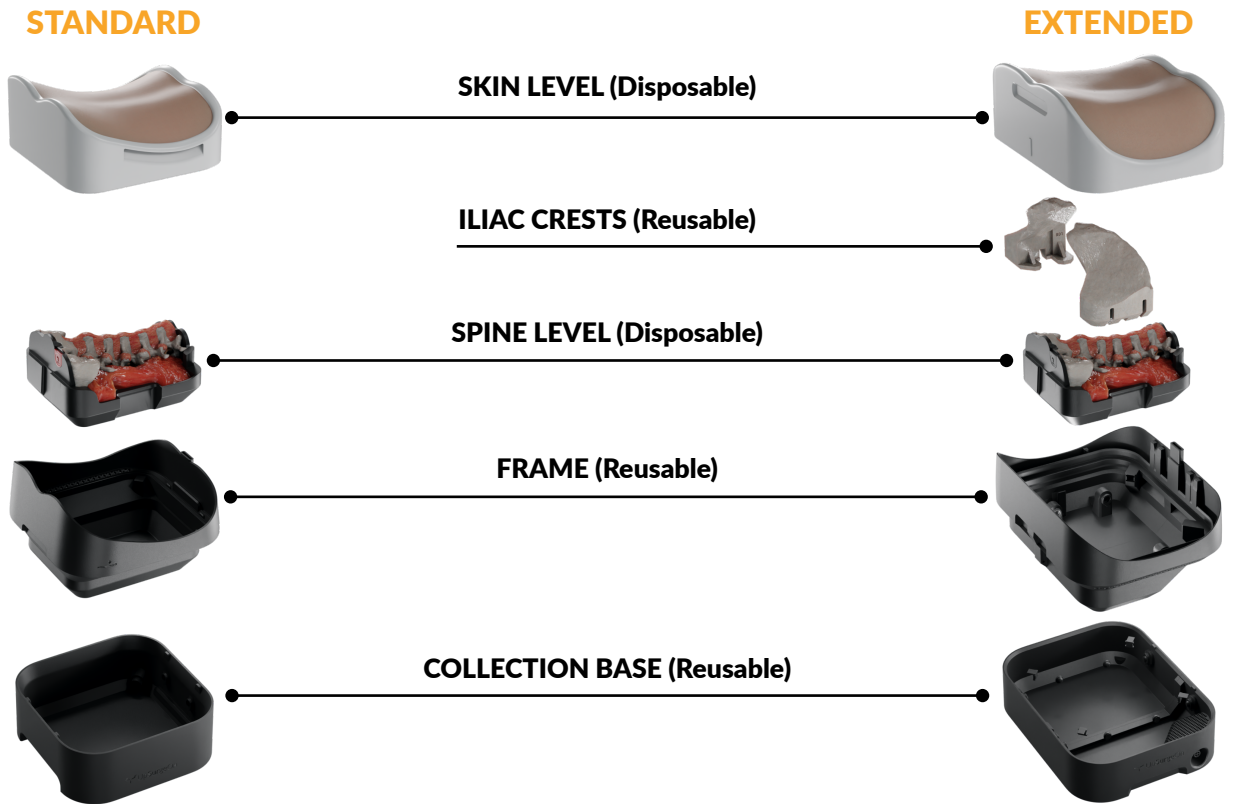


### Standard X-Ray and CT Scan\*

These simulators are compatible with standard X-Ray, fluoroscopy and CT. Scan them and visualize the positioning of the fixation implants.

*\*Feature available upon request*

# How it is composed



# The highest level of detail

10 operable levels in 1 single simulator  
4 Different Sets of Pathologies  
2 Compatibility Versions: Standard X-Ray compatible and non-compatible



Standard X-Ray Compatible  
Pathology Set 1, 2, 3 or 4



NOT Compatible with Standard X-Ray  
Pathology Set 1, 2 or 3

## PROCEDURES:

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

## SURGICAL CAPABILITIES:

### What you can perform in both Sets of Pathologies:

- 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)

### What you can perform in Pathology Set 1 only:

- Canal Stenosis Decompression (L4-5)

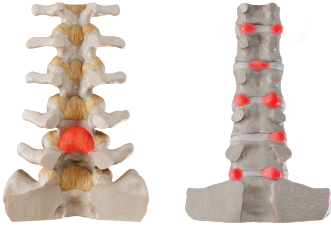




# Pathology Set 1



- **Red:** Standard X-Ray Compatible
- **Black:** NOT Compatible with Standard X-Ray



- 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
- Canal Stenosis
- L5-S1 Left | Foraminal Herniation
- L5-S1 Right | Paramedian Herniation

# Pathology Set 2



- **Red:** Standard X-Ray Compatible
- **Black:** NOT Compatible with Standard X-Ray



- 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

# Pathology Set 3



- **Red:** Standard X-Ray Compatible
- **Black:** NOT Compatible with Standard X-Ray



## Larger Interlaminar and Foraminal Space

- 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

# Pathology Set 4



● Red: Standard X-Ray Compatible



**Vertebroplasty Compatible**

**Larger Interlaminar and Foraminal Space**

**No Pathologies**

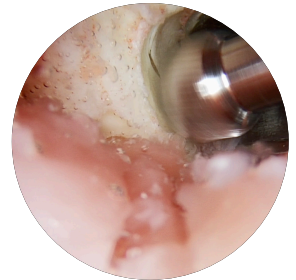
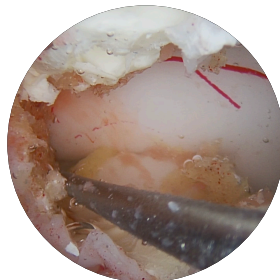
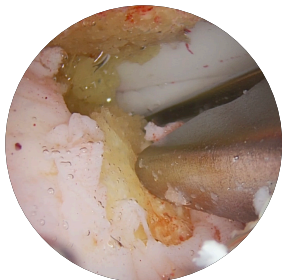
## Surgical Realism



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

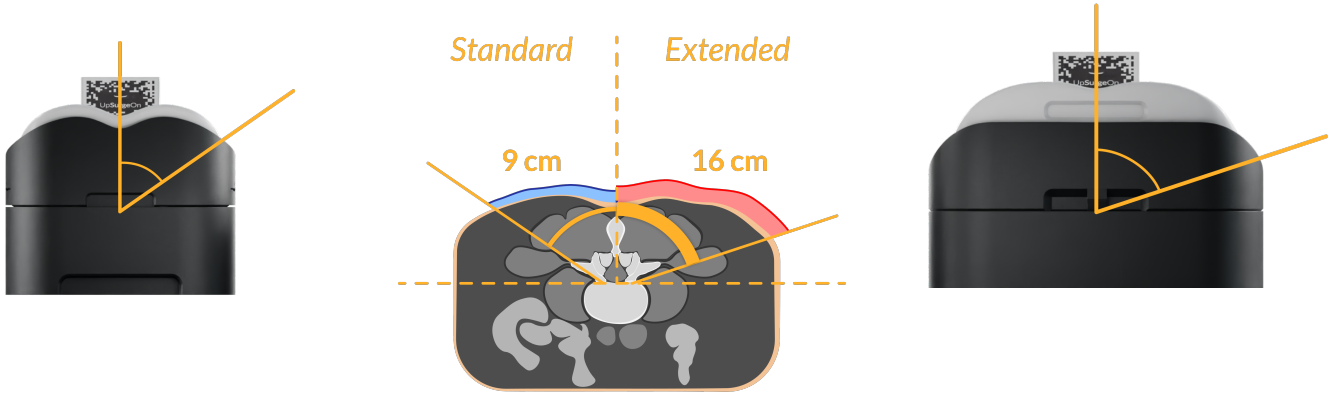
### ANATOMY INCLUDED IN THIS APPROACH:

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



# Endoscopic LumbarBox Extended Version

Designed also for endoscopic transforaminal approaches



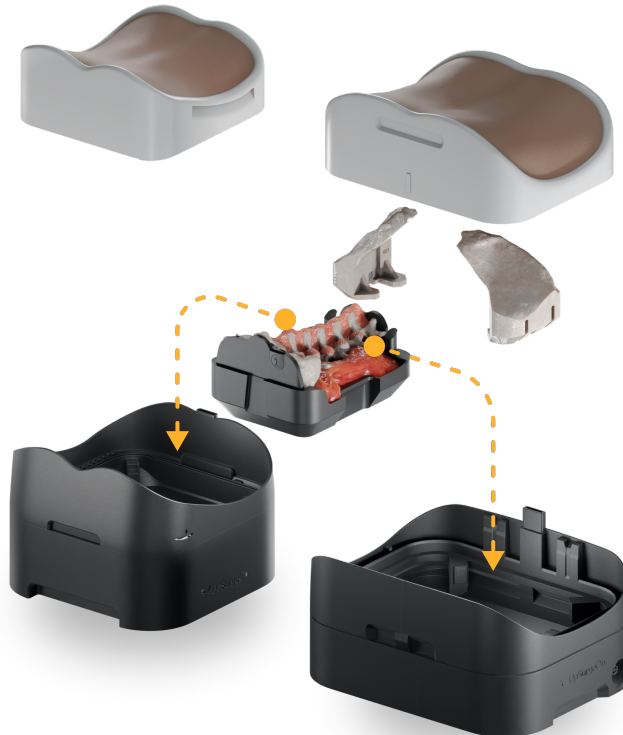
## WHAT YOU CAN DO

In the *Extended* version, it is possible to perform all the procedures found in the *Endoscopic LumbarBox* with the addition of the more lateral approaches. The *Extended* version uses the same spinal levels as the *Endoscopic LumbarBox*

## NEW SIZE, SAME SPINE LEVEL

Endoscopic LumbarBox  
Standard

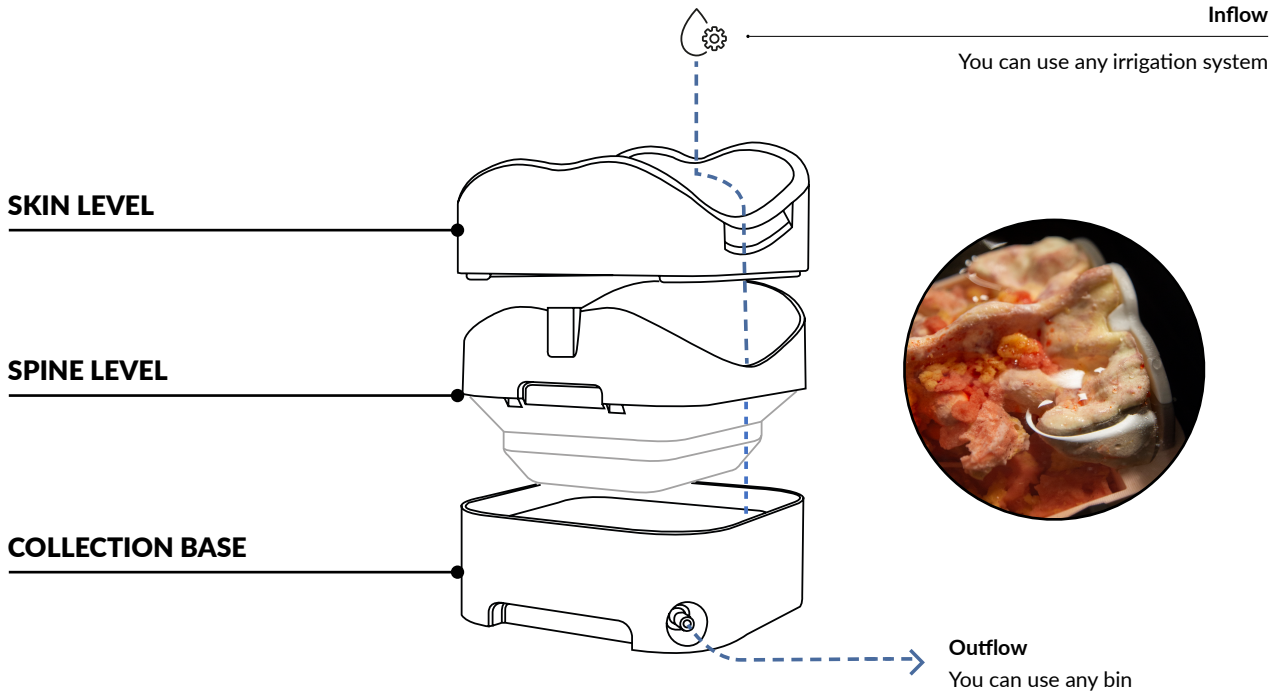
Endoscopic LumbarBox  
Extended





# Water Management

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.

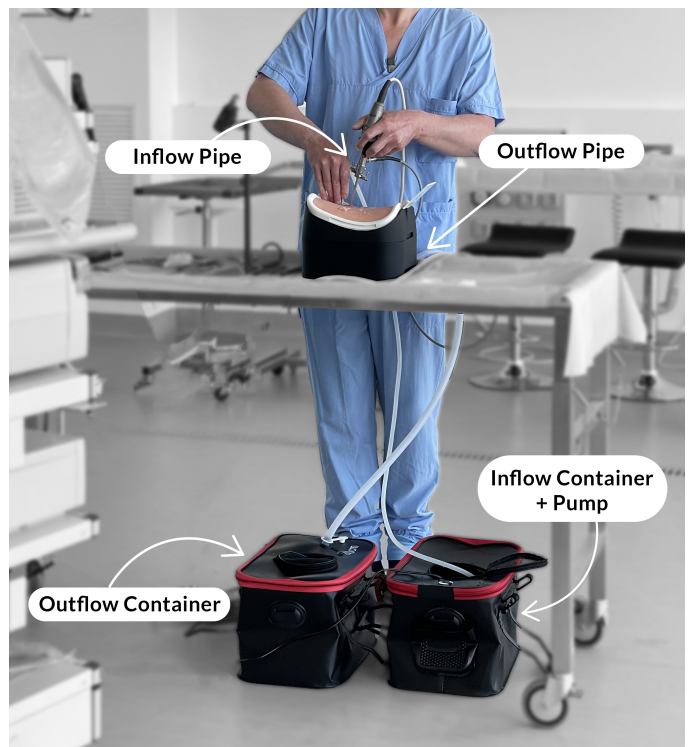
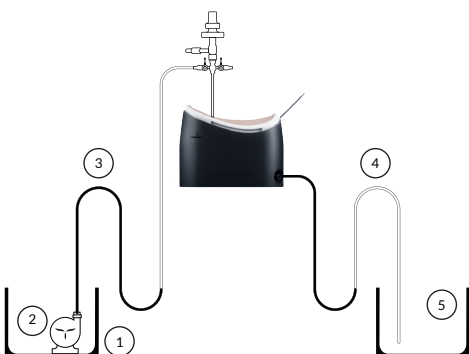


## UpSurgeOn Irrigation System\*

If requested, UpSurgeOn can provide a complete Irrigation KIT that includes:

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

*\*Sold separately*



# Mobile X-Ray

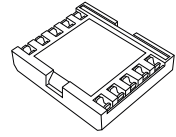
Get the **Neurosurgery App\*** to simulate **fluoroscopy** with **Mobile X-Ray Technology** to set your trajectory and navigate your **endoscope** or any other **tubular instrument** in real time.

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



Neurosurgery App\*

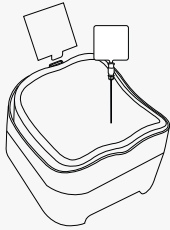
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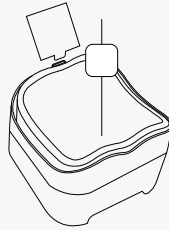
Mobile X-Ray Kit

## Possible ways to use it:

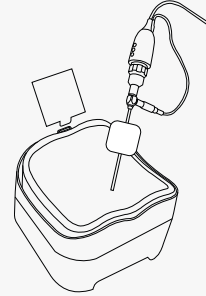
Spine needle



K-wire



Custom Instrument



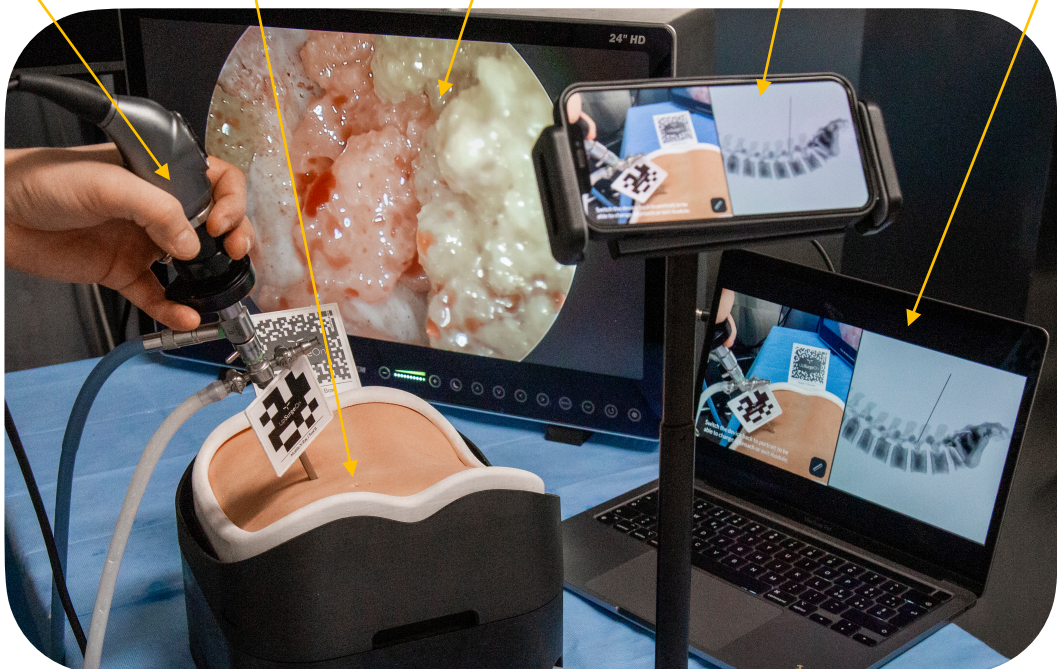
Endoscope with AR Marker

Simulator

Endoscopy Monitor

Your Device with Camera and App

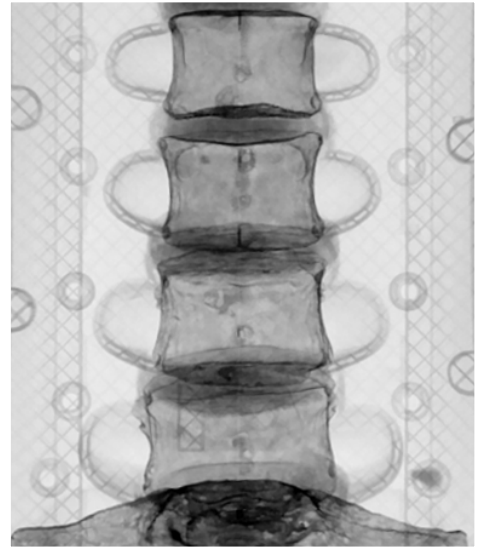
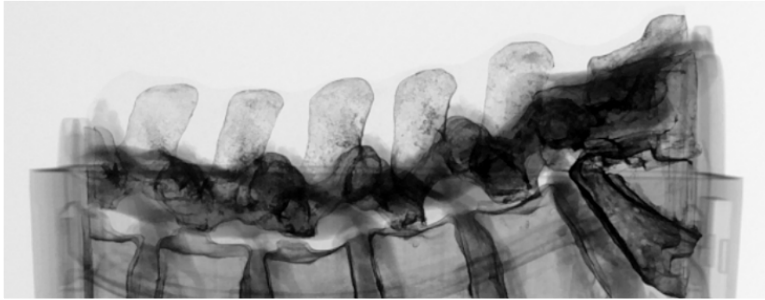
Your Device with Mirroring



# Standard X-Ray and CT Scan\*

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.*



## What is included

- Endoscopic LumbarBox:
  - 1 Skin Level
  - 1 Spine Level
  - 1 Collection Base
- Mobile X-Ray Kit
- Drainage Pipe



## General warnings

**THIS PRODUCT CONTAINS METAL MAGNETS: DO NOT PUT IT INTO A MAGNETIC RESONANCE SCANNER AND DO NOT USE IT WITH ANY MACHINE THAT WORK WITH ELECTROMAGNETS**

- Adult assembly required
- Never leave children unattended with the box
- Never put hot liquids above the tools
- Never put chemical substances above the tools
- Wash with water, do not use chemical products
- Do not use hot water for the irrigation system
- Use the drill **ONLY** when the Skin Level is assembled over the Spine Level
- Keep the product away from any heat source
- After use, is recommended to drain the water from all the components, dry them, and store them in a dry environment

All materials used to produce UpSurgeOn products are certified, safe and non-toxic. Use of gloves, protective glasses and mask is always suggested to maintain the cleanliness of the simulator and the tools, and as a standard practice during each simulation. Wearing safety equipment is mandatory in the use of drilling simulation.

**Thank you for choosing our Technologies!**

For any inquiries please contact us at [info@upsurgeon.com](mailto:info@upsurgeon.com)

Go visit our website at [www.upsurgeon.com](http://www.upsurgeon.com)

Go visit our store at [www.store.upsurgeon.com](http://www.store.upsurgeon.com)