

# Ravo

EPIDURAL CATHETER SYSTEM





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## Typical Indications

- A** Chronic Back Pain
- B** Post-Laminectomy Syndrome
- C** Spinal Stenosis
- D** Herniated Nucleus Pulposus

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## Advantages

- Low risk therapy
- Minimally invasive
- No general anesthetic
- High success rates
- No scar formation
- No open surgery
- Relatively short hospital stay
- Quick recovery
- Repeatable at any time
- Also ideal for patients who have undergone previous surgery
- Targeted treatment of causes

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## Contradictions

- Lack of Patient's consent
- Patient with inflammation adjacent to the targeted treatment of causes
- Patient with inflammation in the bloodstream
- Patient with Hemorrhagic diathesis
- Patient with hypovolemia
- Patient who takes the bleeding disorder(coagulopathy) or anticoagulant medication ( E.g. Warfarin, Aspirin, Plavix)



# Ravo

## EPIDURAL CATHETER SYSTEM

"Epidural Catheter Technique", this proven method has been used to decompress spinal nerves without open surgery and lastingly alleviate the pain associated with acute and chronic spine disorders.

Ravo is a sort of Epidural Catheter Systems for the foresaid proven method by enabling the physician to combat the pain at its source in the spine by enhancing the capability to steer to the target site.

### Features

- The stylet is making the soft catheter less soft and to cut the dura mater more easily.
- No need to withdrawn the stylet to inject the medicaiton
- Surgical grade stainless steel
- Flexible araumatic tip design
- Kink & collapse resistant
- Radiopaque for distinct images and placement accracy
- Non-reactive with Neurolytics:Phenol, alchol, glycerol,etc.
- Tensile spring guided catheter
- Stimulation

### + Ravo : Ravo60

Sort	Length	Diameter	Grip Length	Grip Width
Needle	96.6	Φ1.8	40.5	24.4
Stylet	115	Φ1.2	10.3	11.0

Guide Wire			Catheter				
Length	Cap Diameter	Diameter	Catheter Length	Body Width	Body Length	Tip	
						Outer Diameter	inner Diameter
630.0	Φ10.5	Φ0.3	600.0	32.9	33.0	Φ1.2	Φ0.9

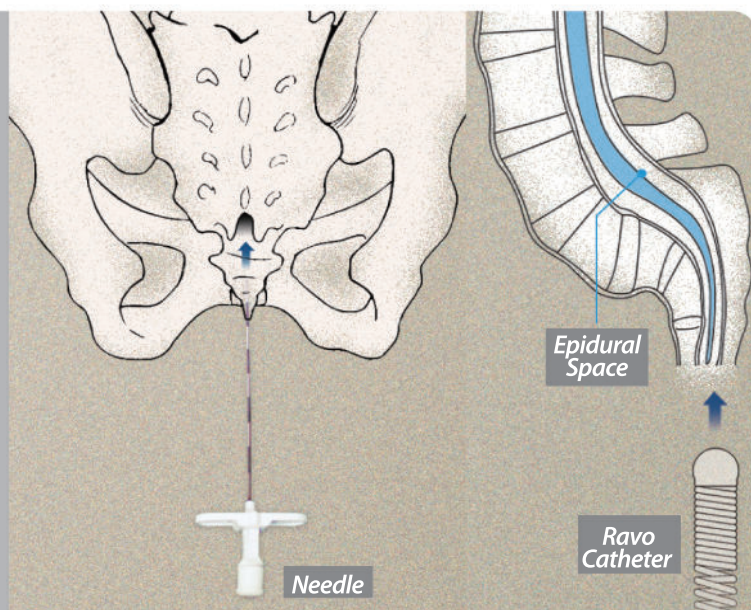
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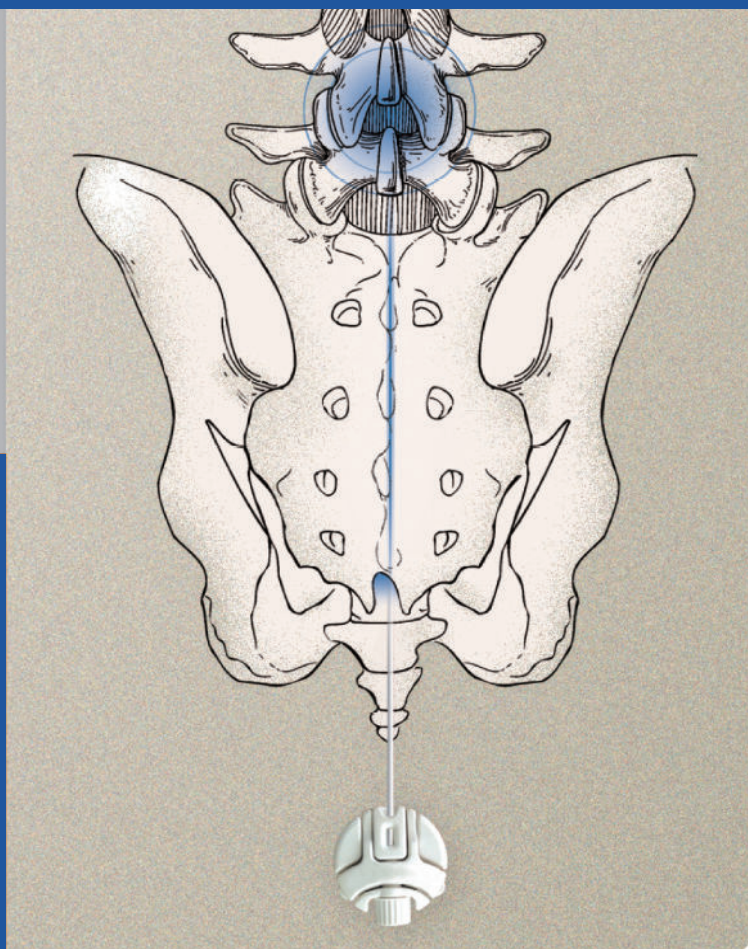
# SURGICAL STEPS

- ▶ An epidural needle (15G) is inserted into the epidural space of the spine through Hiatus above the coccyx.



- ▶ See whether or not the epidural needle (15G) is well placed through the use of the contrast medium.

- ▶ Take out the style leaving the introducer in the hiatus. Insert the catheter from the introducer to the targeted treatment point. Check where the catheter is placed with C-Arm. Inject the mixed medicine into the catheter through the injection hole of the body.



- ▶ The entire procedure takes only 30-40 minutes. In as little as an hour after the procedure the patient can stand up and move around. An inpatient stay usually lasts three to four days. During this time the patient receives four further injections of pain medication, saline solution and enzymes through the catheter.

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**Huvexel** : #105 Mega Center, SKn technopark, 124, Sagimakgol-ro, Jungwon-gu, Seongnam-si, S. Korea  
TEL : +82 (0)31 776 3690 FAX : +82 (0)31 776 3691 E-mail : info@huvexel.com  
[www.huvexel.com](http://www.huvexel.com)

**Diomedical** : 8770 W. Bryn Mawr Ave, Suite 1250W Chicago IL 60631  
TEL : 1 847 795 1047 FAX : 1 847 795 7079 E-mail : info@dio-us.com  
[www.diomedicalus.com](http://www.diomedicalus.com)

EU Representative : DONGBANG ACUPRIME

1 The Forrest Units, Hennock Road East, Marsh Barton, EXETER EX2 8RU, UK Tel: +44 1392 829500 Fax : +44 1392 823232

