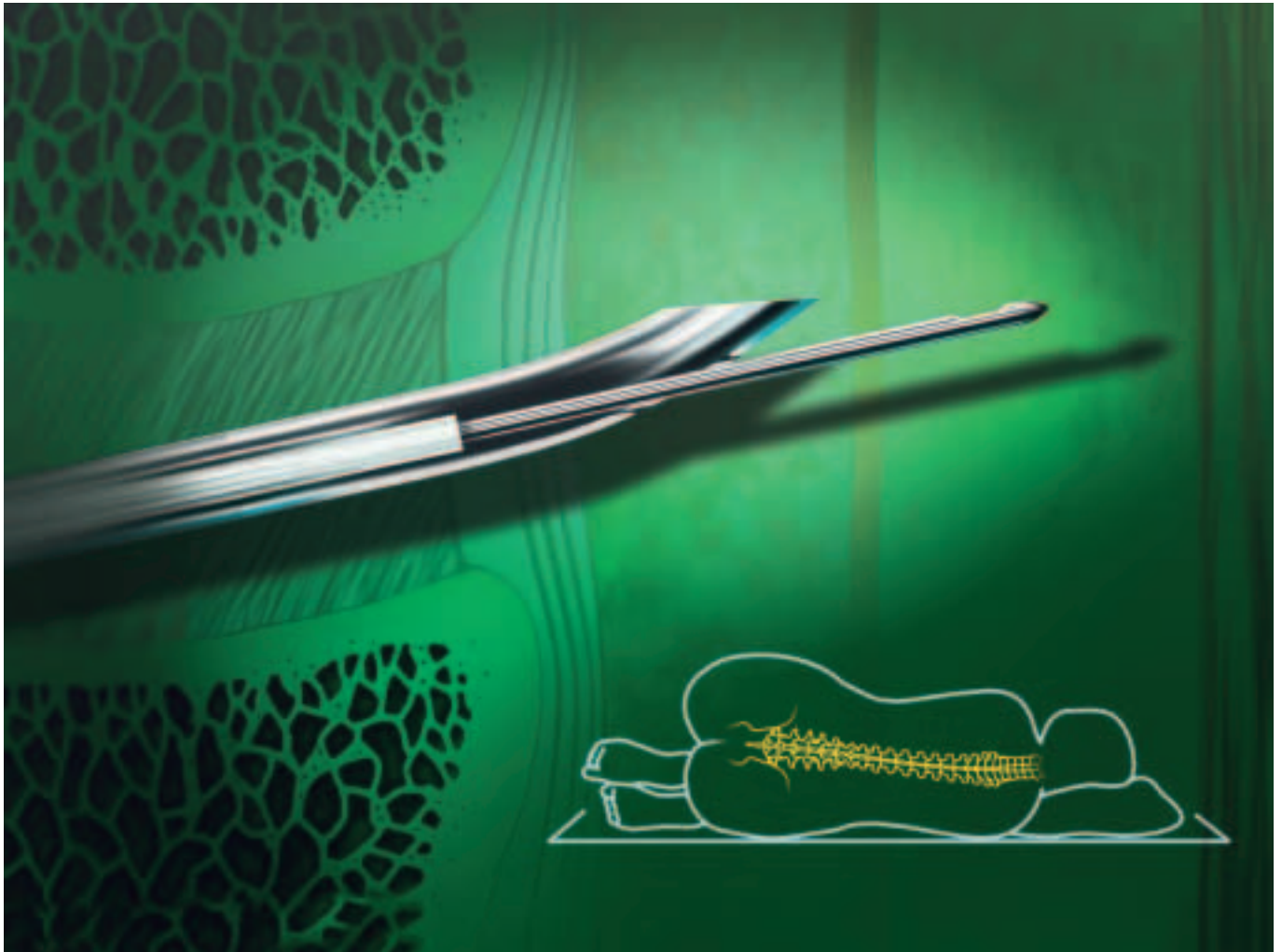


# Espocan®

On the right Track in  
Combined Spinal-Epidural Anaesthesia (CSE)



**B | BRAUN**

## System for Combined Spinal-Epidural Anaesthesia (CSE)

### Introduction to Combined Spinal-Epidural Anaesthesia (CSE)

by A. Van Steenberghe, Brussels, Belgium

Victor Pauchet stated in 1921 that regional anaesthesia will be universally accepted when it will also be used to relieve post-surgical pain. We are convinced that the combined spinal-epidural technique (CSE) provides an answer to that premise. Only when all anaesthetists are equally trained and skilled in regional anaesthesia techniques as they are in general anaesthesia methods, will the prophetic words of Victor Pauchet become a reality.

The CSE technique improves the post-surgical outcome with less unwanted side-effects. It combines the rapidity, effectiveness and reliability of spinal block with the ability not only to refine anaesthesia with epidural supplements, but also to extend analgesia into the postoperative period. The technique is used frequently at many institutions particularly for major orthopaedic surgery and in obstetrics.

One should master both techniques separately before adopting the combined use in a wide variety of surgical and obstetrical proceedings.

CSE is an important addition to the armamentarium of the anaesthesiologist.

Spinal and epidural anaesthesia are major and well-established regional anaesthetic techniques, which have potential advantages over general anaesthesia. Both regional techniques are extensively used in surgery and pain relief because of well documented advantages.

However, both individual techniques have their specific disadvantages.

The development of CSE has eliminated or at least reduced several of the disadvantages of the individual techniques whilst maintaining their major advantages.

The most preferred approach today is the single interspace needle-through-needle technique.

The conventional needle-through-needle approach was further improved by the development of a special Tuohy needle with an aperture (a back-eye) in the curved tip and a spinal needle with a plastic centering sleeve.

#### Range of fine gauge spinal needles

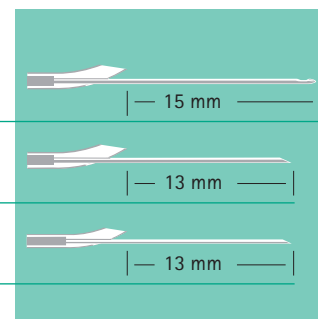
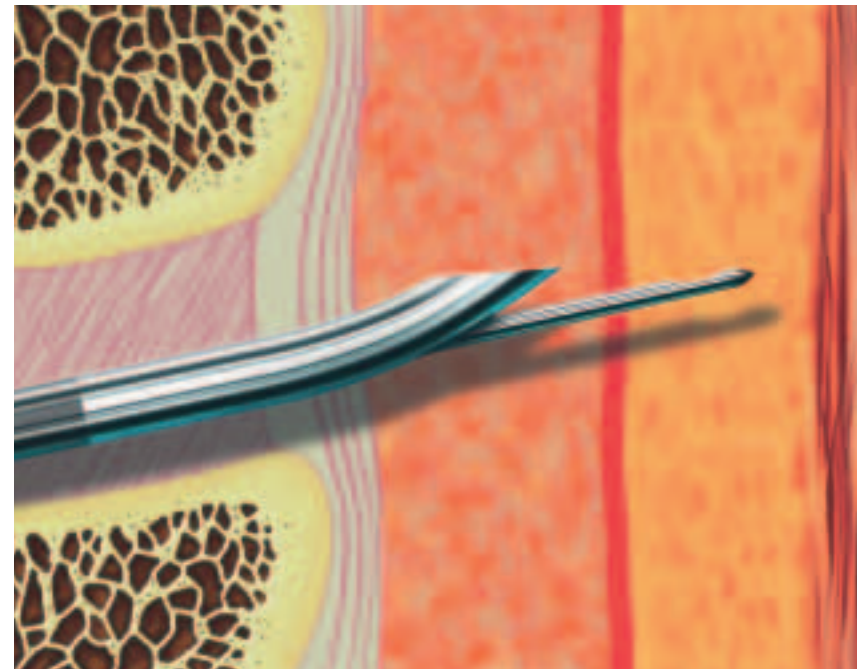
The new spinal needles now available with Espocan® cover all CSE indications.

n Pencan® Pencil Point (27G x 5")  
0.42 x 127.5 mm

n Spinocan® "Quincke" bevel (27G x 5")  
0.42 x 125.5 mm

n Spinocan® "Quincke" bevel (29G x 5")  
0.35 x 125.5 mm

"Quincke" bevels and the Pencil Point tip of the above needles have been designed to produce a more distinct "click" when piercing the dura mater.



#### The ideal protrusion of the spinal needle is:

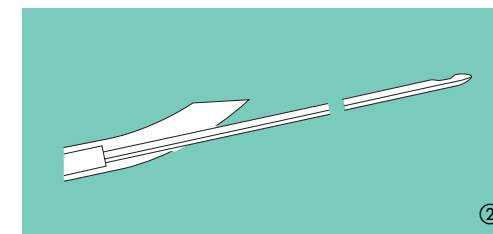
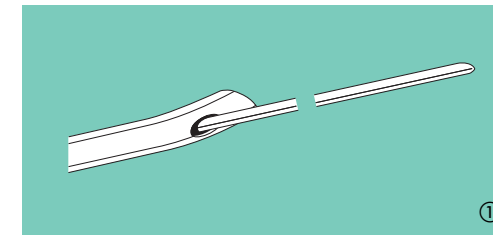
- n 15 mm for the Pencil Point needle to compensate increased tenting effect, although individual variation occurs.
- n 13 mm for the "Quincke" type needles.



#### The Catheter

- n The well-known and proven Perifix® epidural catheter made of polyamide, is available in:
- n standard stiffness tubing
- n soft tubing
- n and the new Soft Tip version.

## The perfect Teamwork



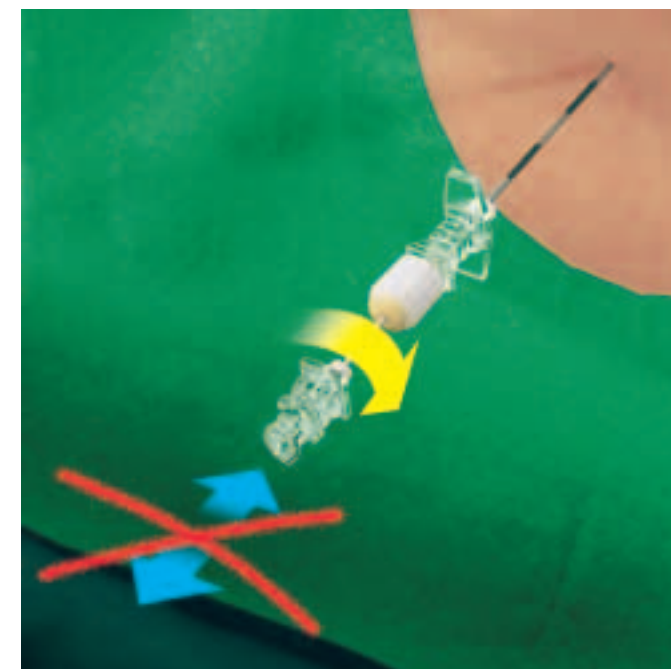
- ① The spinal needle consistently exits through the back-eye.
- ② The centering sleeve supports the spinal needle and guides it through the back-eye.

#### The back-eye in the curved tip of the Tuohy allows that:

- n the spinal needle passes straight through and there is no friction impairing the tactile feedback upon dural puncture
- n the hole left by the spinal needle in the dura is away from where the epidural catheter later strikes the dura.

#### The unique and patented centering sleeve assures that:

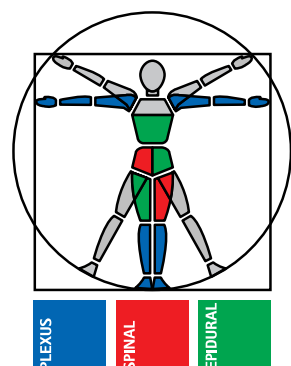
- n the spinal needle passes directly through the back-eye
- n the fine gauge needle is effectively supported within the epidural needle.



#### The Docking System

- n ensures safe and easy fixation of the spinal needle inside the Tuohy needle after successful dural puncture
- n allows rotation of the spinal needle even in the fixed position
- n ensures that connection of a syringe and injection of local anaesthetic will not displace the spinal needle tip from its correct position
- n avoids the difficult and uncomfortable finger grip to steady the spinal needle in position.

## The Art of Regional Anaesthesia



The most advanced CSE  
needle technology

Ordering information:	Code No.	Sales Unit
<b>Espocan® CSE Sets</b>		
<p>☒ <i>with basic components</i></p> <p>Perican® epidural needle Ø 1.3 × 88 mm, 18 G × 3 1/2"</p> <p>Perifix® Loss of Resistance Device, 10 ml, Luer Slip</p> <p>Perifix® EF epidural flat filter, 0.2 µm</p> <p>☒ <i>and alternatively with:</i></p>		
n Perifix® Standard Epidural Catheter		
- Spinocan® spinal needle Ø 0.42 × 125.5 mm, 27 G × 5"	455 6674	10
- Pencan® Pencil point spinal needle Ø 0.42 × 127.5 mm, 27 G × 5"	455 6666	10
n Perifix® Soft Epidural Catheter		
- Spinocan® spinal needle Ø 0.42 × 125.5 mm, 27 G × 5"	455 6682	10
- Pencan® Pencil point spinal needle Ø 0.42 × 127.5 mm, 27 G × 5"	455 6704	10
n Perifix® Soft Tip and Docking System		
- Spinocan® spinal needle Ø 0.42 × 136.5 mm, 27 G × 5 3/8"	455 6747	10
- Spinocan® spinal needle Ø 0.35 × 136.5 mm, 29 G × 5 3/8"	455 6755	10
- Pencan® pencil point spinal needle Ø 0.42 × 138.5 mm, 27 G × 5 3/8"	455 6763	10

Custom-made sets are available upon special request.

## Literature:

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| 1) Rawal, N.<br>The combined Spinal-Epidural<br>Technique<br>Publicidad Permanyer, S. L.<br>Barcelona, 1997 | 2) Vandermeersch, M. D.,<br>Combined Spinal Epidural<br>Anaesthesia<br>Katholieke Universiteit,<br>Leuven 1995 |
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