



**PAJUNK®**

*IntraLong-Set  
with SPROTTE®  
SPECIAL cannula  
atraumatic and trend-setting*



Continuous Spinal Anaesthesia

*Minimum dosage – maximum effect:*

## *IntraLong – the Best Choice for*

Continuous spinal anaesthesia is used particularly in orthopedics and for large-scale tumor operations.

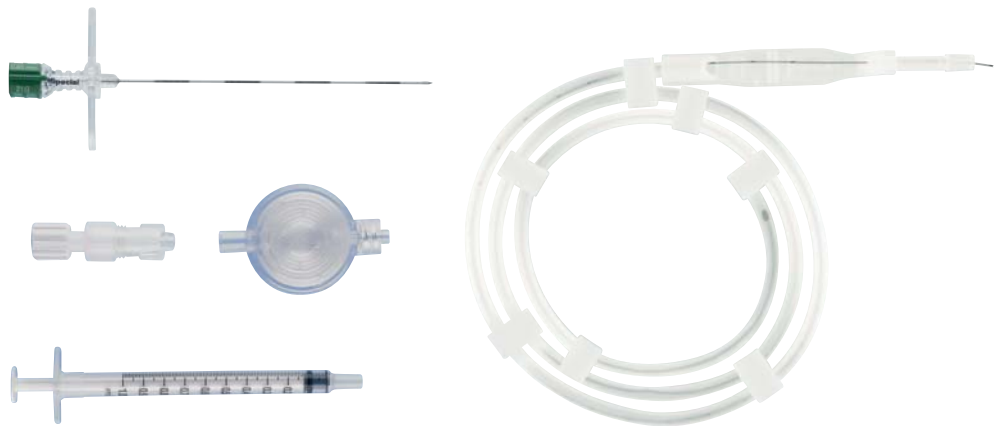
The advantage of this technique is, that immediate and maximum pain relief can be achieved with a minimum amount of anaesthetics. The dose can also be reduced considerably by using the continuous technique for intrathecal

therapy with cytostatics in neurology, thus reducing the danger of systemic toxic reactions to a minimum.

Fast fading away of the blockade and the option for postoperative pain control are very much appreciated factors in rehabilitation, because therapeutic exercise can commence immediately after the operation.

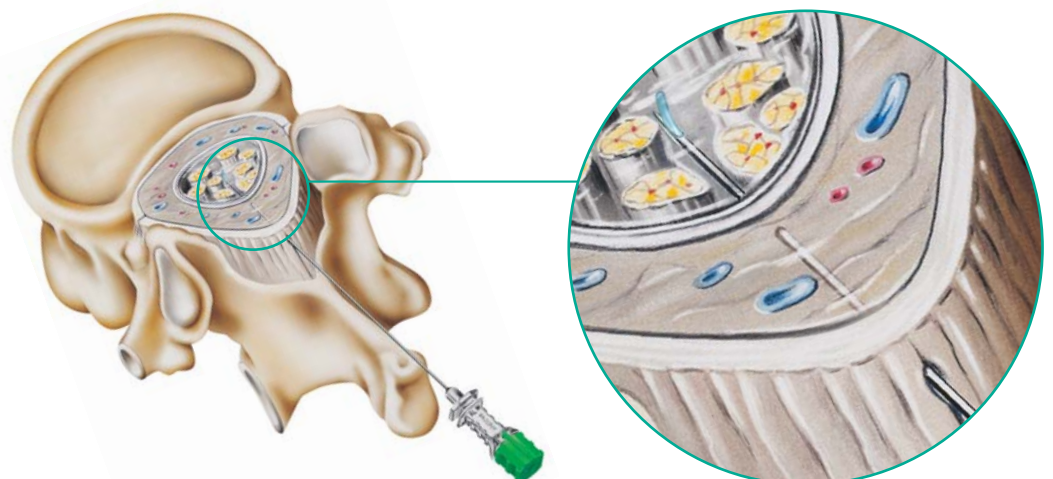


IntraLong-Set with SPROTTE® SPECIAL cannula



The essential advantages of the legendary SPROTTE® cannula, which have revolutionized regional anaesthesia, are transferred to the continuous spinal anaesthesia technique by utilizing the SPROTTE® SPECIAL cannula made by PAJUNK®. This cannula also features the special design with an atraumatic tip and a lateral orifice. The fundamental difference between the two cannula is that the lateral

orifice is relocated forward far into the cone of the tip in comparison with the standard cannula. This reduces the “working length” of the cannula tip in the subarachnoid space. The essential advantages, which are indispensable for gentle and safe application of continuous spinal anaesthesia, are therefore combined in this cannula:

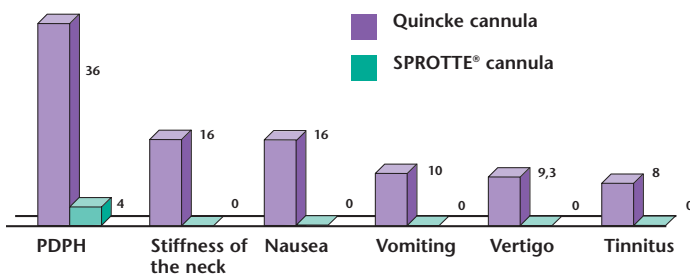


# the Continuous Technique

## Minimization of post-spinal complications

The special cannula tip, shaped in the form of an ogive, will penetrate the dura mater and thereby cause comparatively little tissue damage (see illus. on the right). This guarantees that the fibers of the dura mater will seal the catheter in tightly and perfectly.

A large part of the post-puncture headaches and all complications, such as the inability of low frequency hearing loss, stiffness of the neck (nuchal rigidity), nausea and vomiting connected to a loss of liquor, are thus reduced to a minimum.



The use of atraumatic cannula will not only help to effectively avoid headaches, but also to avert stiffness of the neck (nuchal rigidity), nausea and vomiting; see the results of the first controlled study of Jäger et al 1991, Akt. Neurol. 18: 61-64.

## Controlled catheter guidance

In the SPROTTE<sup>®</sup> SPECIAL cannula the outlet point for the injection and for catheter is positioned side way, above the tissue penetrating tip. The puncture is carried out at a slight ascending angle, with the lateral orifice directed upward. Under these conditions, the catheter in the spinal space is automatically directed upwards from the puncture plane.

This permits an optimal distribution of the anaesthetic, and therefore the quickest possible effect in the lumbar- and thoracal region. If the catheter cannot be advanced forward due to an unfavorable access-angle, then the catheter can be carefully retracted in order to correct the positioning of the cannula.

## Shearing of the catheter is virtually impossible

The edges of the lateral orifice of the SPROTTE<sup>®</sup> SPECIAL are rounded. So the catheter cannot be sheared off, even under unfavorable conditions. Tearing of the catheter can be reliably prevented, if the exertion of force to over-

come obstacles is avoided during retraction of the cannula. Otherwise, the catheter will be elongated and stretched until the material yields and tears.



A SPROTTE<sup>®</sup> SPECIAL cannula and a Tuohy-cannula have penetrated the multi-layered texture of the spinal dura.



With the Tuohy-cannula, the exertion of pressure and the application of tension to the tissue of the dura will inflict a large incised lesion, as may be seen, whereas the SPROTTE<sup>®</sup> SPECIAL cannula merely causes a minimal defect. Here the dura seals the catheter ingress up optimally.

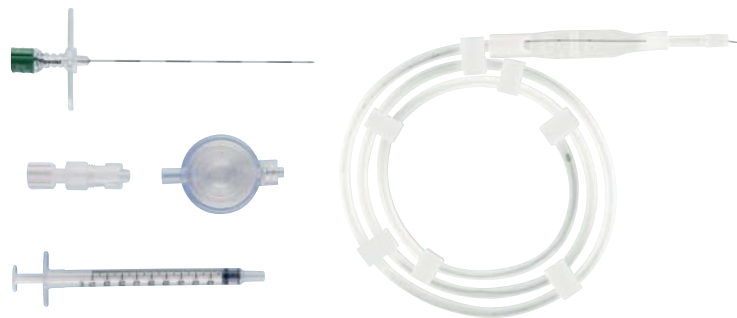


Continuous spinal anaesthesia in one bundle:

# EpiLong- and IntraLong-Set a comprehensive overview

## EpiLong set and IntraLong set for continuous epidural and spinal anaesthesia

Product	Size	PA catheter with steel mandrin	Item no.	PU	X-ray contrast catheter guidance	Fully capable of contrast	0.2 µm flat filter	Adapter	LOR syringe	1-ml Luer syringe
<b>EpiLong Set</b>										
SPROTTE® SPECIAL cannula	19 G x 90 mm	23 G x 90 cm	0021152-51	10	•	•	•			
SPROTTE® SPECIAL cannula	18 G x 90 mm	20 G x 90 cm	0031152-51	10	•		•	•	•	
SPROTTE® SPECIAL cannula	19 G x 90 mm	23 G x 90 cm	0031152-50	10		•	•	•	•	
SPROTTE® SPECIAL cannula	19 G x 90 mm	23 G x 90 cm	0001152-54	10		•		•		
<b>IntraLong Set</b>										
SPROTTE® SPECIAL cannula	22 G x 90 mm	27 G x 90 cm	21151-30CS	10	•	•	•			
SPROTTE® SPECIAL cannula	22 G x 103 mm	27 G x 90 cm	21151-30CL	10		•	•	•		
SPROTTE® SPECIAL cannula	21 G x 90 mm	25 G x 90 cm	31151-30GS	10	•	•	•			•



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