

**PAJUNK®**

*EpiLong Sets*  
*Systems for epidural anaesthesia*

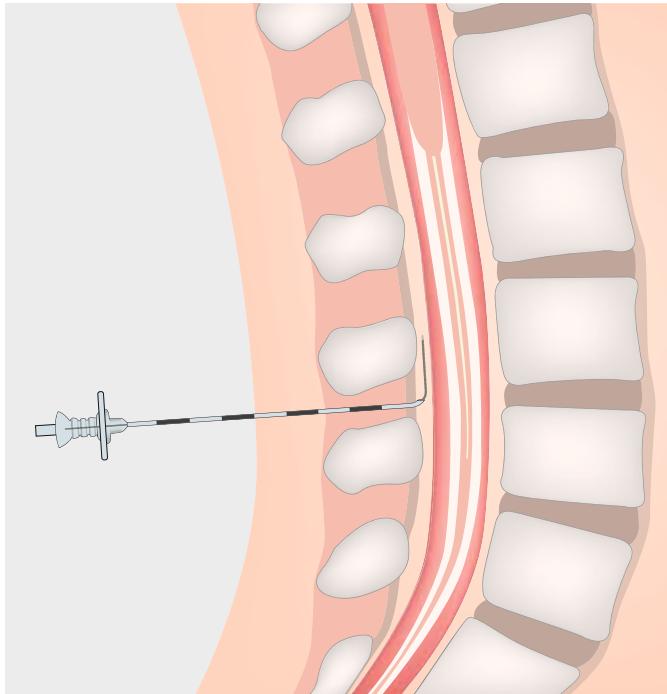


Epidural anaesthesia

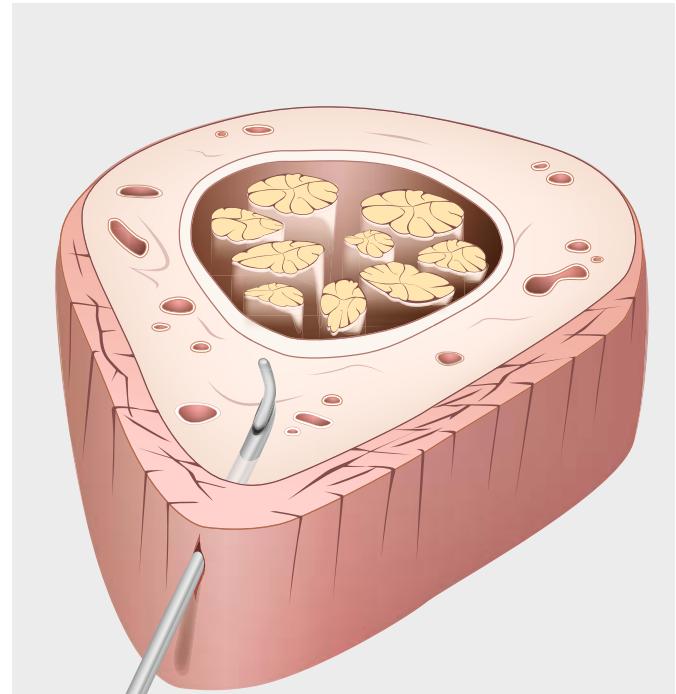
*Atraumatic and gentle*

## **PAJUNK® sets for continuous epidural anaesthesia**

Epidural anaesthesia has served as a proven anaesthetic method for many years. PAJUNK® supports this modern form of puncture technology close to the spinal cord with four different sets for continuous epidural anaesthesia. The main emphasis of development is focused on providing cannulas which, with a new generation Tuohy cannula with "Cornerstone" reflectors, are PAJUNK®'s response to the increasing significance of ultrasonic placement. On top of that, with the EpiLong Soft, PAJUNK® is now presenting a new generation of catheters.



Thanks to the curved Tuohy tip, the catheter automatically bends when the catheter egresses, placing it in the correct position.



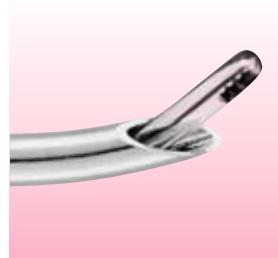
Metal helical coils and soft catheter material unify maximum flexibility and stability in the new EpiLong Soft catheters – catheter constriction is impossible. Six lateral openings guarantee completely uniform distribution of the anaesthetic.

## The set variants

PAJUNK® always differentiates amongst four epidural sets, according to the designs of the Tuohy cannula and the epidural catheters:

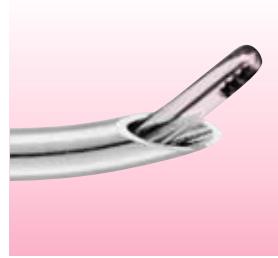
### EpiLong I set

Tuohy cannula with metal stylet + EpiLong catheter with closed tip and three lateral openings



### EpiLong Tuohy set

Tuohy cannula with plastic stylet + EpiLong catheter optionally with closed tip and three lateral openings or with a central opening



### EpiLong Soft set

Tuohy cannula with metal stylet + EpiLong Soft catheter with closed tip and **six lateral openings**



### EpiLong Soft Sono set

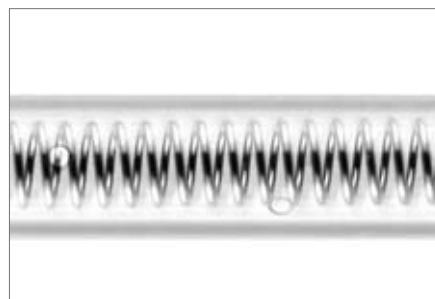
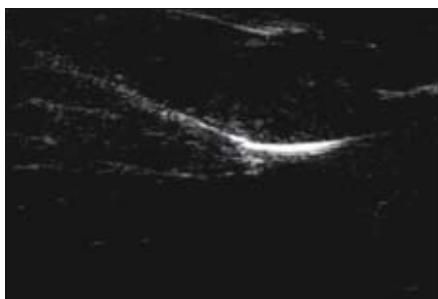
TuohySono cannula with metal stylet and **"Cornerstone" reflectors** + EpiLong Soft catheter with closed tip and **six lateral openings**



## *EpiLong Soft in focus*

# **EpiLong Soft – maximum stability and flexibility in a catheter**

The new EpiLong Soft catheter developed by PAJUNK® combines two essential attributes foratraumatic and safe puncturing: it is absolutely soft while being absolutely stable at the same time. Six openings on the distal catheter end facilitate perfectly uniform distribution of the anaesthetic. Furthermore, it convinces through its sophisticated details:



### **Graduation for pinpoint placement**

The EpiLong Soft catheter has a length graduation on the first 30 cm.

→ That facilitates pinpoint placement while also serving as a position check.

### **X-ray contrast strips increase the safety**

Three fine, black x-ray contrast strips are placed along the entire length of the catheter.

→ This marking increases safety and reduces the risk of an incorrect infusion.

### **Soft material – stabilised spiral**

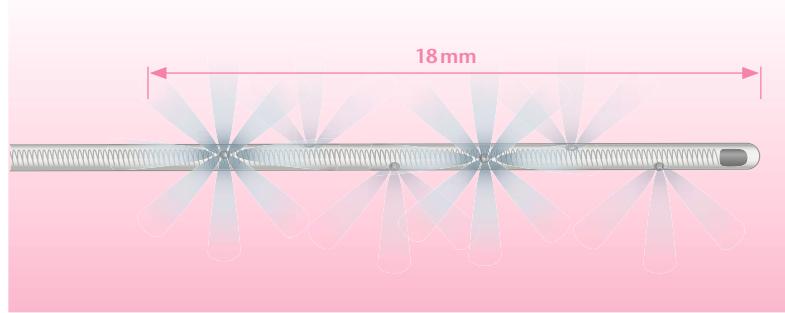
The combination of the continually soft catheter material and the interior metal helical coil facilitates optimal handling.

→ The stability of the metal helical coil permits effortless catheter insertion and advancement. At the same time, the distinctly soft catheter material provides maximum flexibility when placing the catheter at a 90° angle.

→ *Memory effect precluded*

→ *Conjunct softness and stability*

→ *Unobstructed flow thanks to metal helical coil*



New is the combination of six lateral openings on the catheter tip with the integrated metal helical coil. Six guarantees perfectly uniform distribution of the anaesthetic, which provides optimal development of the effectiveness.



### Unobstructed flow of the anaesthetic

Its integrated metal helical coil lends this catheter, with its especially large internal lumen, a maximum of movement while resisting buckling at the same time.

→ As a consequence, the EpiLong Sono catheter provides the most favourable conditions for safe connection to the injection pump together with an absolutely unobstructed flow of the anaesthetic. An important aspect during continuous applications.

### Uniform distribution of the anaesthetic

Six microscopically small openings are placed laterally on the first 18 mm of the catheter.

→ That guarantees uniform distribution of the anaesthetic and thus safe blocking.

→ NEW: six lateral openings on the catheter tip

→ Safe blocking

### Atraumatic tip prevent accidental puncture

The catheter has a closed, very soft tip.

→ That in turn reduces the risk accidentally injuring blood vessels and dura to an absolute minimum.

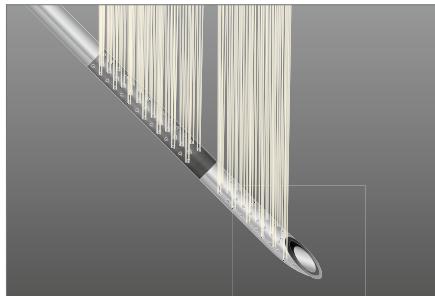
→ Softness and stability all in one

→ Available in the EpiLong Soft set and EpiLong Soft Sono set

## TuohySono

# The visible cannula for added safety

The placement of cannulas under ultrasound is gaining increasing importance in epidural anaesthesia. With the TuohySono, PAJUNK® has risen to the challenge of this market development and as the first company is offering a cannula perfectly matched to the requirements placed on ultrasound-supported epidural anaesthesia. It is based on the "Cornerstone" reflectors developed together with Dr Chris Mitchell, which PAJUNK® founded as the basis of a new cannula generation in regional anaesthesia with 100% reflection guarantee under ultrasound. Based on the excellent experiences with the visibility of these cannulas, the implementation of this technology for use in epidural anaesthesia is the final logical consequence. They guarantee safe, paravertebral and paramedial access.



### Guaranteed cannula tip visibility

The patented "Cornerstone" reflectors were developed by PAJUNK® in collaboration with Dr Chris Mitchell. They are structured in such a manner that all ultrasonic waves are reflected without losses.

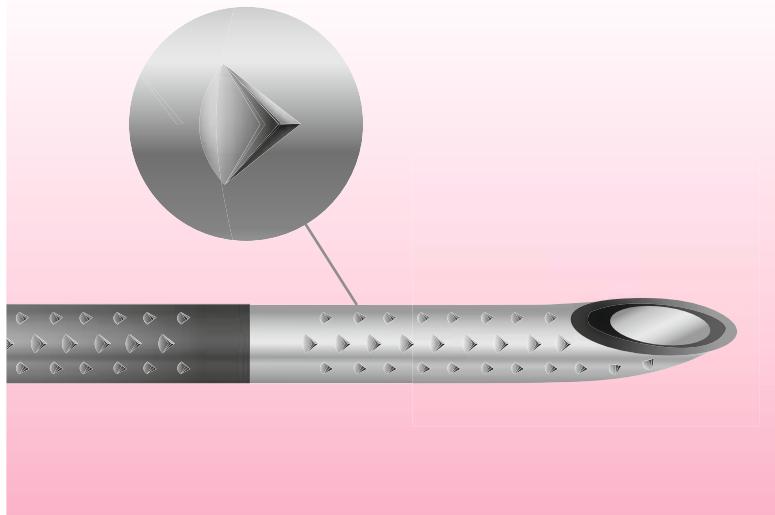
► That makes the cannula tips perfectly visible and permits clear identification.

### Reflection independent of the puncture angle

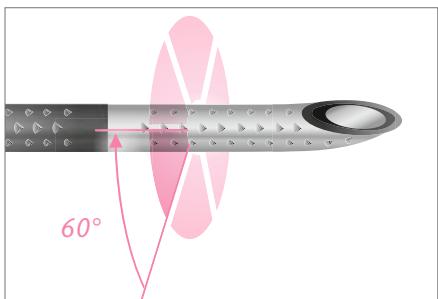
The nature of the "Cornerstone" reflectors guarantees ideal reflection behaviour, independent of the puncture angle.

► That ensures safe use – without restrictions.

► Perfect reflection in each position.



The patent pending "Cornerstone" reflectors are integrated throughout the cannula. Their "three-walled" indentation guarantees reflection of ultrasonic waves independent of the cannula puncture angle.



### Sophisticated layout – clear identification

The distal end of the TuohySono cannula has two embossed sections of 10 mm length each.

→ That means the ultrasonic waves are reflected across a total length of 20 mm.

Each cannula segment is graduated all-around with "Cornerstone" reflectors that are offset 60°.

→ Perfect cannula identification is guaranteed in every position.

### More stability with the metal stylet

The TuohySono cannula from PAJUNK® has a special stainless steel stylet integrated flush to the cannula. That lends it more stability, especially in the sector of special lengths. Cannula and stylet are jointly manufactured and ground. The goal is a 100% perfect fit – that makes spreading fabric pieces in the epidural space of the puncture nearly impossible.

→ Reflection across a total length of 20 mm.

→ Accurately fitting steel stylet.

→ The TuohySono cannula is included in all EpiLong Soft Sono sets.

## *Innovative catheter fixation*

# **FixoLong and FixoCath – ensure freedom of movement**

PAJUNK® developed two different solutions for catheter fixation on patients; FixoLong and FixoCath for catheter sizes 19 G and 20 G. It is precisely in continual application where they prevent the catheter from getting pulled out by accident when the patient moves and where the inflow of the anaesthetic is obstructed by an unfavourable position.

### **FixoLong**

With FixoLong, the catheters and filters are fixated near the catheter exit, which guarantees the patients maximum freedom of movement during all continual applications.



### **FixoCath**

FixoCath is simultaneously a surgical dressing and fixation and is placed directly on the exit point. Maximum freedom of movement for the patient is guaranteed here also.



### **Flat filter**

The 0.2 µm flat filter prevents the passage of particles.



### **Clamping adapter**

The special PAJUNK® Clamping Adapter safety lock stops over-tensioning while ensuring 100 % flow of the anaesthetic.

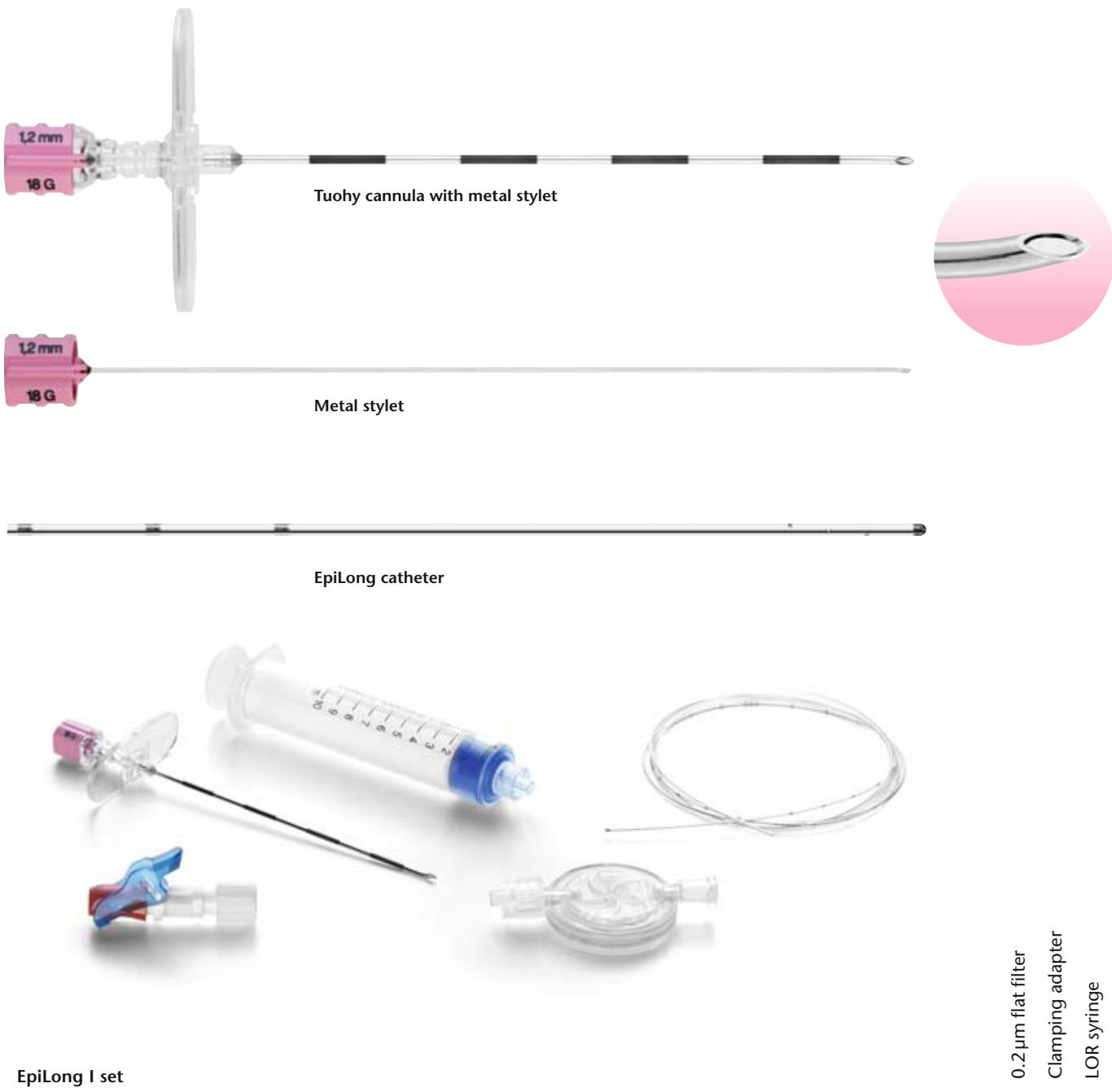


## The sets

# Perfect selection for safe and gentle epidural anaesthesia

### EpiLong I set

In the EpiLong I set, the Tuohy cannula comes standard with a metal stylet. The EpiLong catheter is available solely with closed tip and three lateral openings.

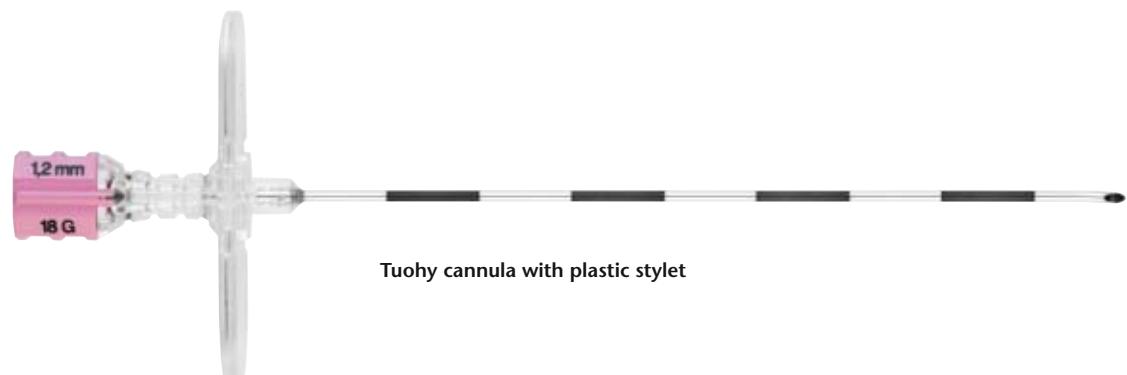


### EpiLong I set

Product	Size	Catheter	Item no.	PU	•	•	•
Tuohy cannula	17 G x 80 mm	19 G x 90 cm closed tip with three lateral openings	0431156-48	10	•	•	•
Tuohy cannula	17 G x 90 mm	19 G x 90 cm closed tip with three lateral openings	0431155-48	10	•	•	•
Tuohy cannula	18 G x 90 mm	20 G x 90 cm closed tip with three lateral openings	0431155-51	10	•	•	•

## EpiLong Tuohy set

The Tuohy cannula in this set is equipped with a plastic stylet, making it correspondingly less expensive. The standard epidural catheter is optionally available with closed tip and three lateral openings or with a central opening.



Tuohy cannula with plastic stylet



Plastic stylet



EpiLong catheter with closed tip and  
three lateral openings



EpiLong catheter with central opening





**FixoLong**

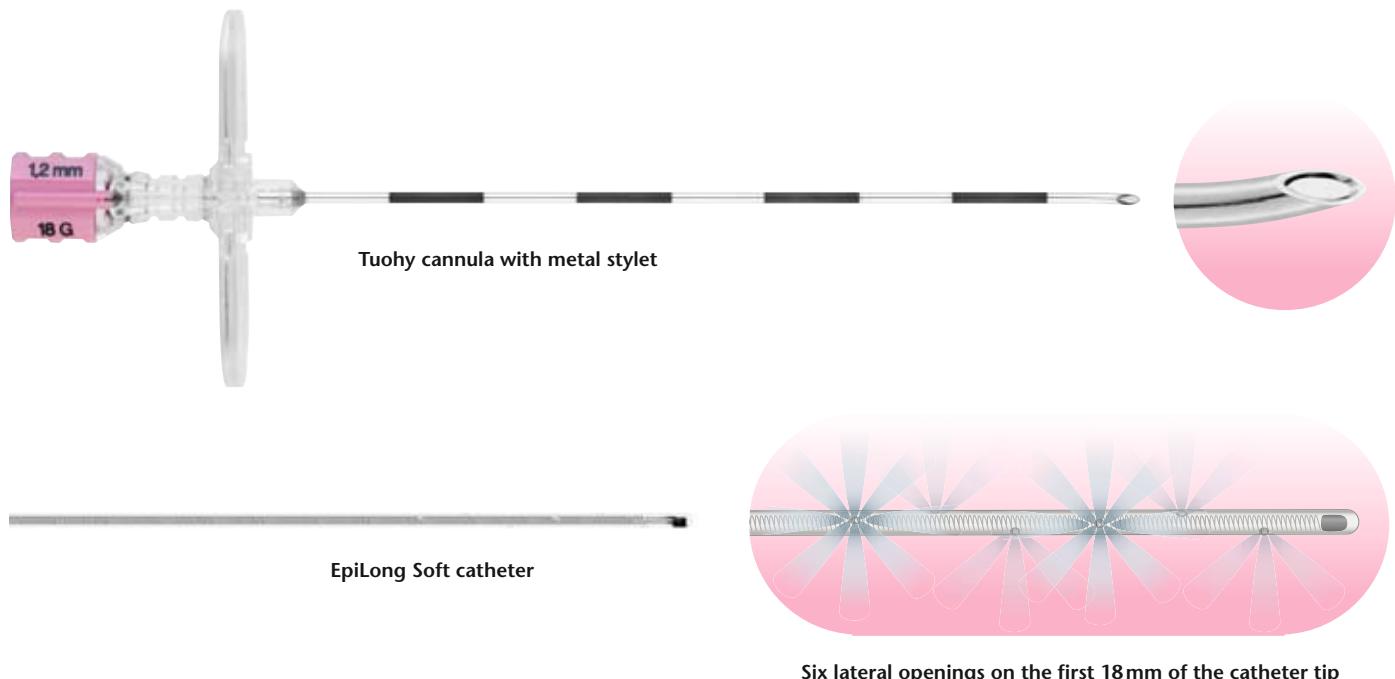
**FixoCath**

#### EpiLong Tuohy set

Product	Size	Catheter	Item no.	PU	FixoLong	FixoCath	0.2µm flat filter	Clamping adapter	LOR syringe
Tuohy cannula	19 G x 90 mm	23 G x 90 cm central opening	0621152-50	10			•	•	
Tuohy cannula	18 G x 90 mm	20 G x 90 cm central opening	0521152-51	10			•	•	
Tuohy cannula	18 G x 80 mm	20 G x 90 cm closed tip with three lateral openings	0331153-51	10			•	•	•
Tuohy cannula	18 G x 80 mm	20 G x 90 cm closed tip with three lateral openings	0531153-51	10	•		•	•	•
Tuohy cannula	18 G x 90 mm	20 G x 90 cm closed tip with three lateral openings	0331152-51	10			•	•	•
Tuohy cannula	18 G x 90 mm	20 G x 90 cm closed tip with three lateral openings	0331252-51	10		•	•	•	•
Tuohy cannula	18 G x 90 mm	20 G x 90 cm closed tip with three lateral openings	0321152-51	10			•	•	
Tuohy cannula	18 G x 90 mm	20 G x 90 cm closed tip with three lateral openings	0311152-51	10				•	
Tuohy cannula	18 G x 90 mm	20 G x 90 cm closed tip with three lateral openings	0531152-51	10	•		•	•	•
Tuohy cannula	17 G x 80 mm	19 G x 90 cm closed tip with three lateral openings	0331153-48	10			•	•	•
Tuohy cannula	16 G x 90 mm	19 G x 90 cm closed tip with three lateral openings	0331152-49	10			•	•	•
Tuohy cannula	16 G x 90 mm	19 G x 90 cm closed tip with three lateral openings	0321152-49	10			•	•	

## EpiLong Soft set

The newly designed EpiLong Soft catheter is, thanks to its integrated metal helical coil, very flexible while resisting buckling at the same time. It has a closed tip and six lateral openings. The Tuohy cannula in this set comes standard with a metal stylet.

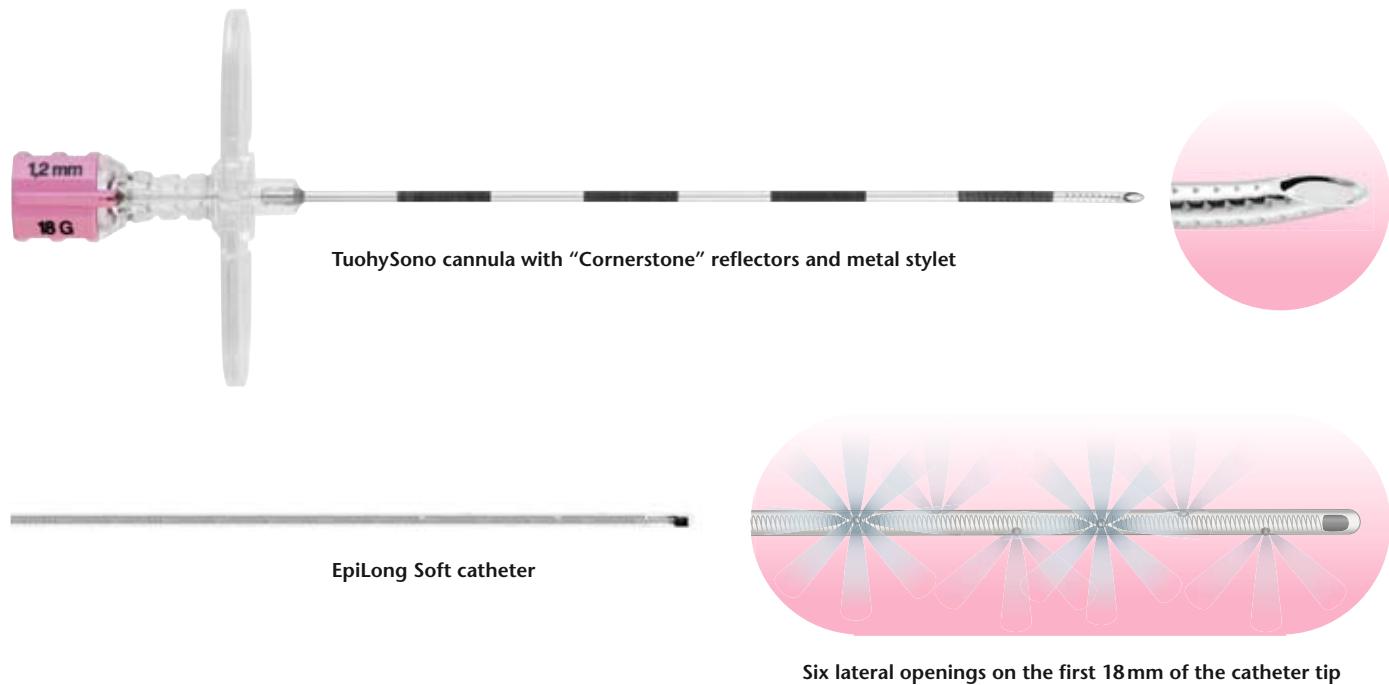


### EpiLong Soft set

Product	Size	Catheter	Item no.	PU	FixoLong	0.2 μm flat filter	Clamping adapter	LOR syringe
Tuohy cannula	18 G x 90 mm	20 G x 90 cm, metal helical coil, closed tip with six lateral openings	0431157-51	10	•	•	•	•
Tuohy cannula	17 G x 90 mm	19 G x 90 cm, metal helical coil, closed tip with six lateral openings	0431157-48	10	•	•	•	•
Tuohy cannula	17 G x 90 mm	19 G x 90 cm, metal helical coil, closed tip with six lateral openings	0421157-48	10	•	•	•	•

## EpiLong Soft Sono set

This set includes the new EpiLong Soft catheter with integrated metal helical coil, closed tip and six lateral openings. At the same time, the new redesign of the TuohySono cannula with "Cornerstone" reflectors provides perfect visibility under ultrasound.



### EpiLong Soft set

Product	Size	Catheter	Item no.	PU	FixoLong 0.2 µm flat filter	Clamping adapter	LOR syringe
Tuohy cannula	18 G x 50mm	19 G x 90cm, metal helical coil, closed tip with six lateral openings	0631187-51	10	•	•	•
Tuohy cannula	18 G x 90mm	20 G x 90cm, metal helical coil, closed tip with six lateral openings	0431187-51	10	•	•	•
Tuohy cannula	17 G x 90mm	19 G x 90cm, metal helical coil, closed tip with six lateral openings	0431187-48	10	•	•	•

# Epidural anaesthesia

## Set components

### Tuohy cannulas

Product	Size	Item no.	PU
<b>TuohySono cannula</b>			
with metal stylet and wing	17 G x 90mm	1085-4M090	25
	18 G x 50mm*	1085-4K050	25
	18 G x 90mm	1085-4K090	25
	18 G x 120mm	1085-4K120	10
<b>Tuohy cannula</b>			
with metal stylet and wing	19 G x 80 mm	1150-4I080	25
	19 G x 90 mm	1150-4I090	25
	18 G x 50 mm*	1150-4K050	25
	18 G x 80 mm	1150-4K080	25
	18 G x 90 mm	1150-4K090	25
	18 G x 120 mm	1150-4K120	10
	17 G x 80 mm	1150-4M080	25
	17 G x 90 mm	1150-4M090	25
	17 G x 120 mm	1150-4M120	10
	17 G x 150 mm	1150-4M150	10
	16 G x 80 mm	1150-4O080	25
	16 G x 90 mm	1150-4O090	25
<b>Tuohy cannula</b>			
with plastic stylet and wing	19 G x 90 mm	1150-6I091	25
	18 G x 80 mm	1150-6K081	25
	18 G x 90 mm	1150-6K091	25
	17 G x 90 mm	1150-6M091	25
	16 G x 90 mm	1150-6O091	25



TuohySono cannula with metal stylet



Tuohy cannula with metal stylet



Tuohy cannula with plastic stylet

\* with 0.5 cm graduation

## Catheter



EpiLong catheter with closed tip and three lateral openings

EpiLong catheter with open tip

Product	Size	Closed	Open	Steel mandrin	Adapter	Item no.	PU
EpiLong catheter	20 G x 90cm	•		•	•	001151-37C	10
EpiLong catheter	20 G x 90cm	•			•	021151-37C	10
EpiLong catheter	19 G x 90cm	•		•	•	001151-37A	10
EpiLong catheter	19 G x 90cm	•			•	021151-37A	10
EpiLong catheter	19 G x 90cm		•		•	031151-37A	10

## Set components



FixoLong



Flat filter



FixoCath



Clamping adapter

Product	Item no.	PU
FixoLong	001151-41	10
FixoCath	001151-37Z	10
Flat filter	001151-37X	10
Clamping adapter	001151-37U	10
LOR syringe	001151-45	10



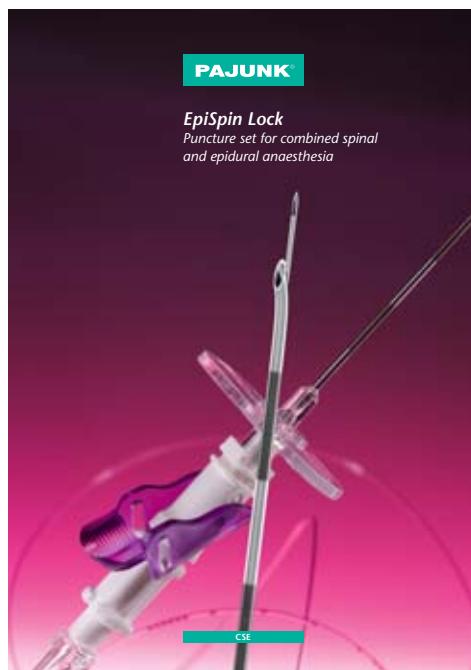
LOR syringe

## EpiLong Soft set 17 G (individual set)



- 1 Tuohy cannula 17 G x 90 mm with wing and metal stylet
- 1 EpiLong Soft catheter 19 G x 90 cm with metal helical coil
- 1 Clamping adapter (red)
- 1 10 ml LOR syringe Luer Lock
- 1 Filter
- 1 FixoLong
- 1 Injection cannula 16 G x 38 mm
- 1 Injection cannula 18 G x 38 mm
- 1 Injection cannula 22 G x 38 mm
- 1 Syringe 10 ml Luer
- 1 Syringe 20 ml Luer
- 1 Syringe 3 ml Luer Lock
- 3 Foam swabs
- 1 Filter straw 100 mm, packed in 90 x 90 cm outer wrap
- 1 Fenestrated drape
- 5 Compresses

Item no. 0431157-848



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