



Peripheral Anesthesia

PAJUNK®

Real People. Real Care.

E-Cath® II / E-Cath® II Plus

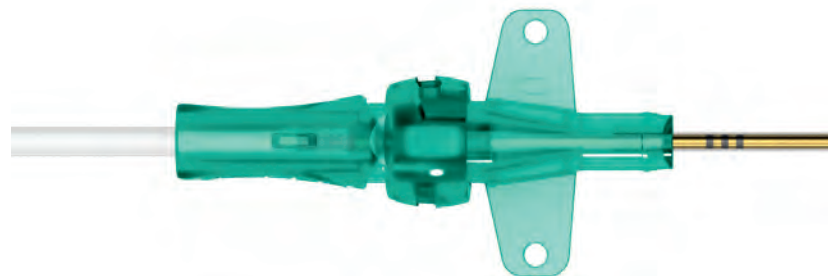
**Continuous Nerve Blocks as Simple
as a Single Shot Technique**

Made in Germany

Quite Simple: Catheter Over Needle (CON) Technique in Three Steps

The E-Cath®/E-Cath® Plus system was developed in collaboration with Dr Ban Tsui. It makes the CON Technique as simple as a Single Shot Technique. The CON Technique can offer increased added value, especially for the training of young anesthetists and for hospitals that do not work with continuous nerve blocks on a daily basis.

The new E-Cat II/E-Cath II Plus combines the best of clinical experience and the latest technical expertise.



*SonoPlex needle in
indwelling catheter*



Indwelling catheter



*E-Cath in
indwelling catheter*

1. Ip V. H. Y. et al. (2021). How I Do It: Technical report on surgically-initiated rectus sheath catheter using catheter-over-needle assembly. *The Canadian Journal of Urology*, 28 (5): 10871–10873.
2. Ip V. H. Y. et al. (2013). The catheter-over-needle assembly offers greater stability and less leakage compared to the traditional counterpart in continuous interscalene nerve blocks: a randomized, patient-blinded study. *Can. J. Anesth.*, 60: 1272–1273.



"The self priming system improves the ultrasound visibility of the needle shaft, needle tip, indwelling catheter and E-Cath."

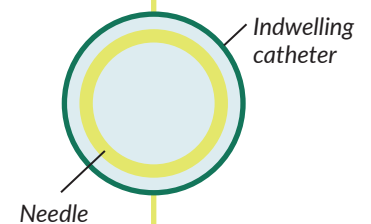
Florian Weck, R&D Manager Cannula- and Cathetersystems



Self Priming System

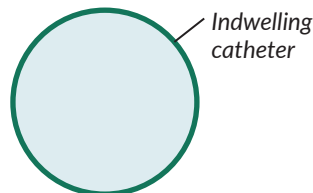
Ultrasound visibility of SonoPlex needle in indwelling catheter

1. Placing the indwelling catheter using the SonoPlex needle



2. Removing the needle

- » The indwelling catheter seals the puncture site.



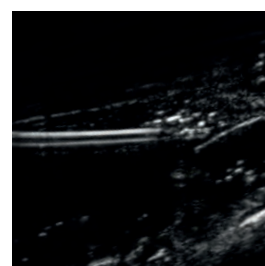
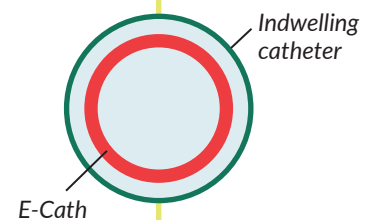
- » Tissue tension is maintained.
- » The risk of leakage¹ and dislocation² is reduced.

- » Improved ultrasound visibility of the needle shaft, needle tip, indwelling catheter and E-Cath.

3. Placing the E-Cath using an indwelling catheter



- » The dual catheters increase kink stability.



Self Priming System

Ultrasound visibility of E-Cath in indwelling catheter

Puncture and Catheter Placement

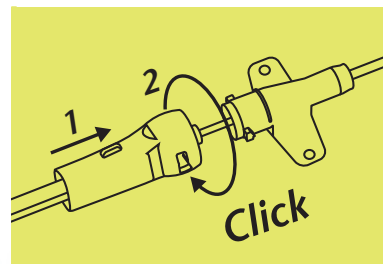
As Simple as a Single Shot

Secure Attachment

Integrated Injection Tube

It is permanently secured on the E-Cath® and needle hub:

- » Injection takes place directly and safely via the injection tube, no additional handling required.
- » Reduces the risk of leakage.



Integrated Stimulation Cable

Bayonet Lock

Ensures a secure connection between the indwelling catheter and the puncture needle and E-Cath:

- » The puncture needle is ready for use as it is already preassembled in the set.
- » Engagement can be verified by audible and tactile “click” feedback.
- » It enables one-handed and ergonomic use of the E-Cath.

1. Ip V. H. Y. et al. (2021). How I Do It: Technical report on surgically-initiated rectus sheath catheter using catheter-over-needle assembly. *The Canadian Journal of Urology*, 28 (5): 10871–10873.
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Depth
Graduation

NanoLine
Coating

Cornerstone
Reflectors

Puncture needle in
indwelling catheter

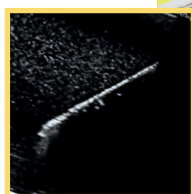
#pajunkinnovation

Stimulation by non-insulated
echogenic needle tip with facet tip S
and two inclination angles.

Precise Puncture and Position Control



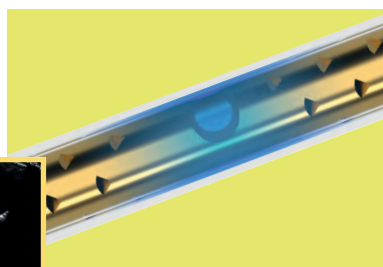
Before



During

Puncture needle and indwelling catheter
before and during injection.

Comparison test in Blue Phantom,
insertion angle 45°



Self Priming System

Anesthetic flows through the proximal
opening between the two Cornerstone
segments and forms a fluid layer
between the outer wall of the needle
and the indwelling catheter:

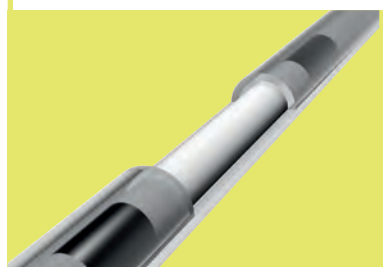
- » Echogenic properties of the needle
shaft are enhanced.

Reduced Risk of Leakage and Dislodgement

Sealed Puncture Site

The puncture site is sealed by the
indwelling catheter as it has a
larger outer diameter than the
puncture needle:

- » After removal of the puncture
needle, the tension in the
tissue is maintained.
- » The risk of leakage¹ and
dislodgement² is reduced.



Two Catheter Layers

Together with the indwelling catheter,
the E-Cath forms a stable and safe
double lumen:

- » This significantly supports the
kink stability of the E-Cath.
- » Contributes to a uniform flow
of the anesthetic.



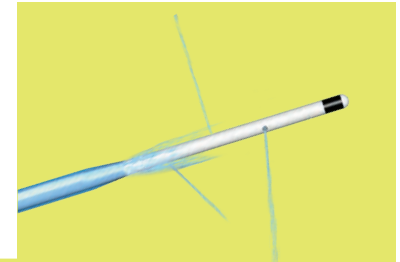
A Double Lumen That Has What It Takes

Intelligent Catheter Design

E-Cath® II Plus

E-Cath Plus with steel wire reinforcement protrudes 15 mm from the indwelling catheter.

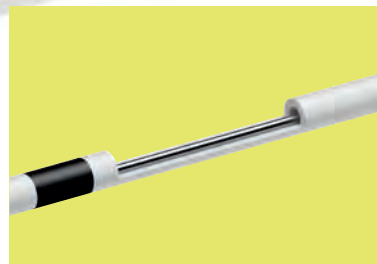
15 mm



Closed Tip, Three Lateral Openings and an additional outlet at the end of the indwelling catheter:

- » This optimizes the 360° distribution of the anesthetic.

E-Cath in indwelling catheter



Integrated Stainless Steel Reinforcement

At the proximal end, the E-Cath II Plus is provided with an integrated steel wire reinforcement:

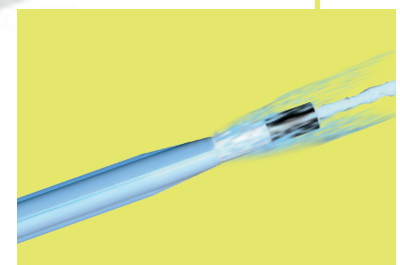
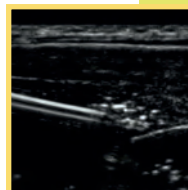
- » It is designed to facilitate placement of the E-Cath.

E-Cath protrudes 2 mm from the indwelling catheter.

E-Cath® II

#pajunkinnovation

E-Cath without indwelling catheter



Distal Opening and an additional outlet at the end of the indwelling catheter:

- » Enables continuous flow of the anesthetic, even if the distal opening is blocked.
- » This optimizes the 360° distribution of the anesthetic.

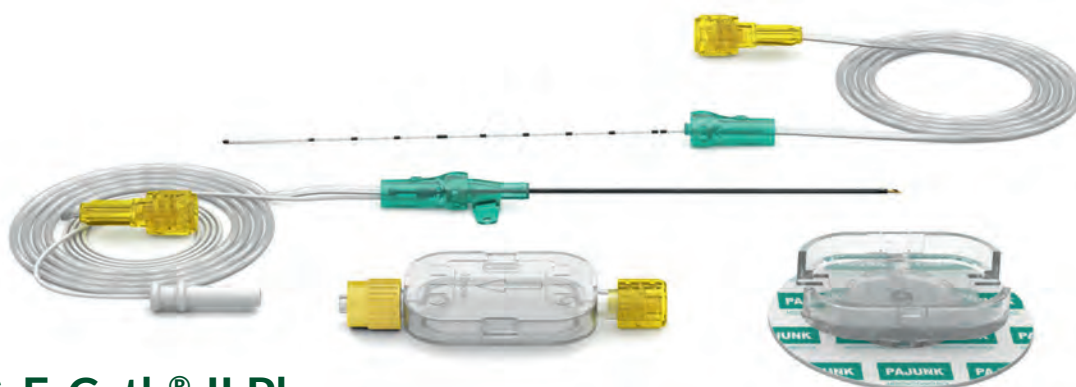
Self Priming System

As a result of the proximal opening, anesthetic also flows between the outer wall of the E-Cath and the inner wall of the indwelling catheter during injection:

- » This is designed to minimize artifacts and to improve ultrasound visibility.

Simplifies Block Extension, Reduces the Risk of Dislodgement:

- ✓ *The E-Cath is firmly connected to the indwelling catheter and therefore cannot migrate.*
- ✓ *Position control is possible at any time by ultrasound.*
- ✓ *Thanks to its extended tip and the three lateral openings, the E-Cath II Plus can compensate for minor tissue movements.*



E-Cath® II & E-Cath® II Plus

E-Cath® II

Needle with Cornerstone reflectors (20G) with facet tip S, indwelling catheter (18G) and E-Cath (20G)

| Indwelling catheter | Working length: Indwelling catheter + E-Cath II | Item no. | NRFit® Item no. | PU | FixoLong + Filter | FixoCath |
|-----------------------|---|------------|-----------------|----|-------------------|----------|
| 18G x 50 mm (2") | 52 mm | 301185-40E | 301165-40E | 10 | • | |
| 18G x 50 mm (2") | 52 mm | 301285-40E | 301265-40E | 10 | | • |
| 18G x 80 mm (3 1/4") | 82 mm | 311185-40E | 311165-40E | 10 | • | |
| 18G x 80 mm (3 1/4") | 82 mm | 311285-40E | 311265-40E | 10 | | • |
| 18G x 100 mm (4") | 102 mm | 361185-40E | | 10 | • | |
| 18G x 100 mm (4") | 102 mm | 361285-40E | | 10 | | • |
| 18G x 130 mm (5 2/5") | 132 mm | 351185-40E | | 10 | • | |
| 18G x 130 mm (5 2/5") | 132 mm | 351285-40E | | 10 | | • |
| 18G x 150 mm (6") | 152 mm | 371285-40E | | 10 | | • |

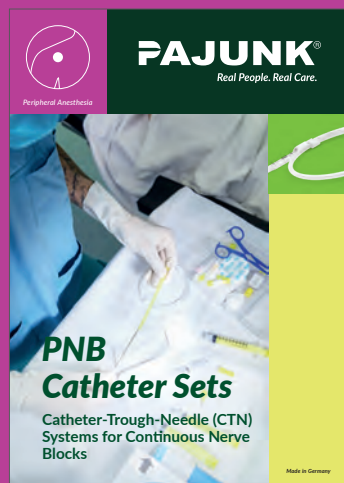
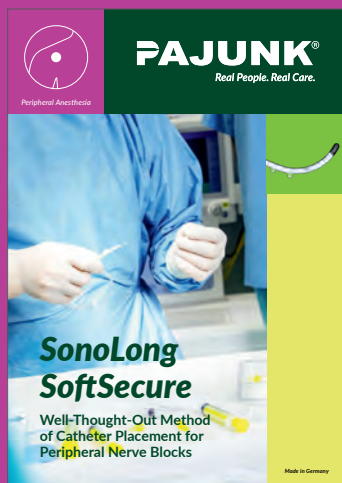
E-Cath® II Plus

Needle with Cornerstone reflectors (20G) with facet tip S, indwelling catheter (18G) and E-Cath (20G) with stainless steel reinforcement at proximal end, protruding 15 mm from indwelling catheter

| Indwelling catheter | Working length: Indwelling catheter + E-Cath II Plus | Item no. | NRFit® Item no. | PU | FixoLong + Filter | FixoCath |
|----------------------|--|------------|-----------------|----|-------------------|----------|
| 18G x 50 mm (2") | 65 mm | 301185-41E | 301165-41E | 10 | • | |
| 18G x 50 mm (2") | 65 mm | 301285-41E | | 10 | | • |
| 18G x 80 mm (3 1/5") | 95 mm | 311185-41E | 311165-41E | 10 | • | |
| 18G x 80 mm (3 1/5") | 95 mm | 311285-41E | | 10 | | • |
| 18G x 100 mm (4") | 115 mm | 361285-41E | | 10 | • | |

NRFit® is a registered trademark of GEDSA, used with their permission.

Further PAJUNK® products from our portfolio for the application area of peripheral nerve blocks:



More Information on
E-Cath® II / E-Cath® II Plus

Not all devices are registered and approved for sale in all countries or regions. Even the instructions for use may differ depending on the country or region. Please contact our representative in your country to get information on the availability of the devices.

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