PAJUNK®

SonoSystem –

The Complete System for Ultrasound Guided Nerve Blocks

Regional Anaesthesia

Efficient and effective

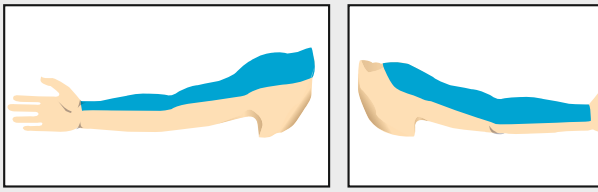
Peripheral nerve blocks

Regional anaesthesia has become an integral part of daily surgical practice. Aside of the single shot techniques for the peripheral blocks during operational interventions, the continuous techniques additionally help to alleviate post-operative pain, to improve the operative result and to enhance patient comfort.

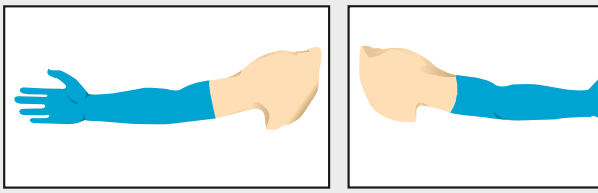
By providing a comprehensive programme for single shot and for continuous plexus anaesthesia, PAJUNK® supports the following applications with its catheter puncture kits:

Peripheral blocks

Upper extremities (brachial plexus)

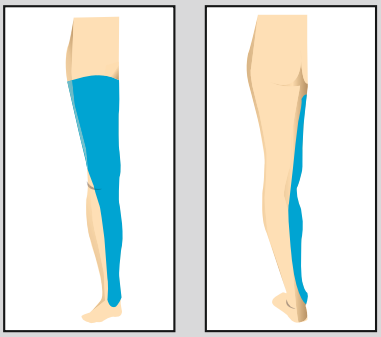


Interscalene brachial plexus block

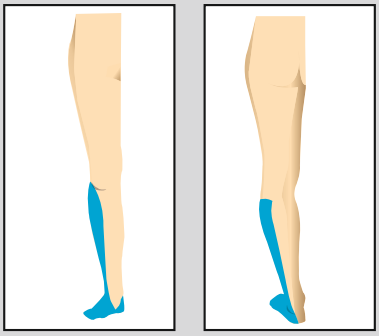


Axillary brachial plexus block

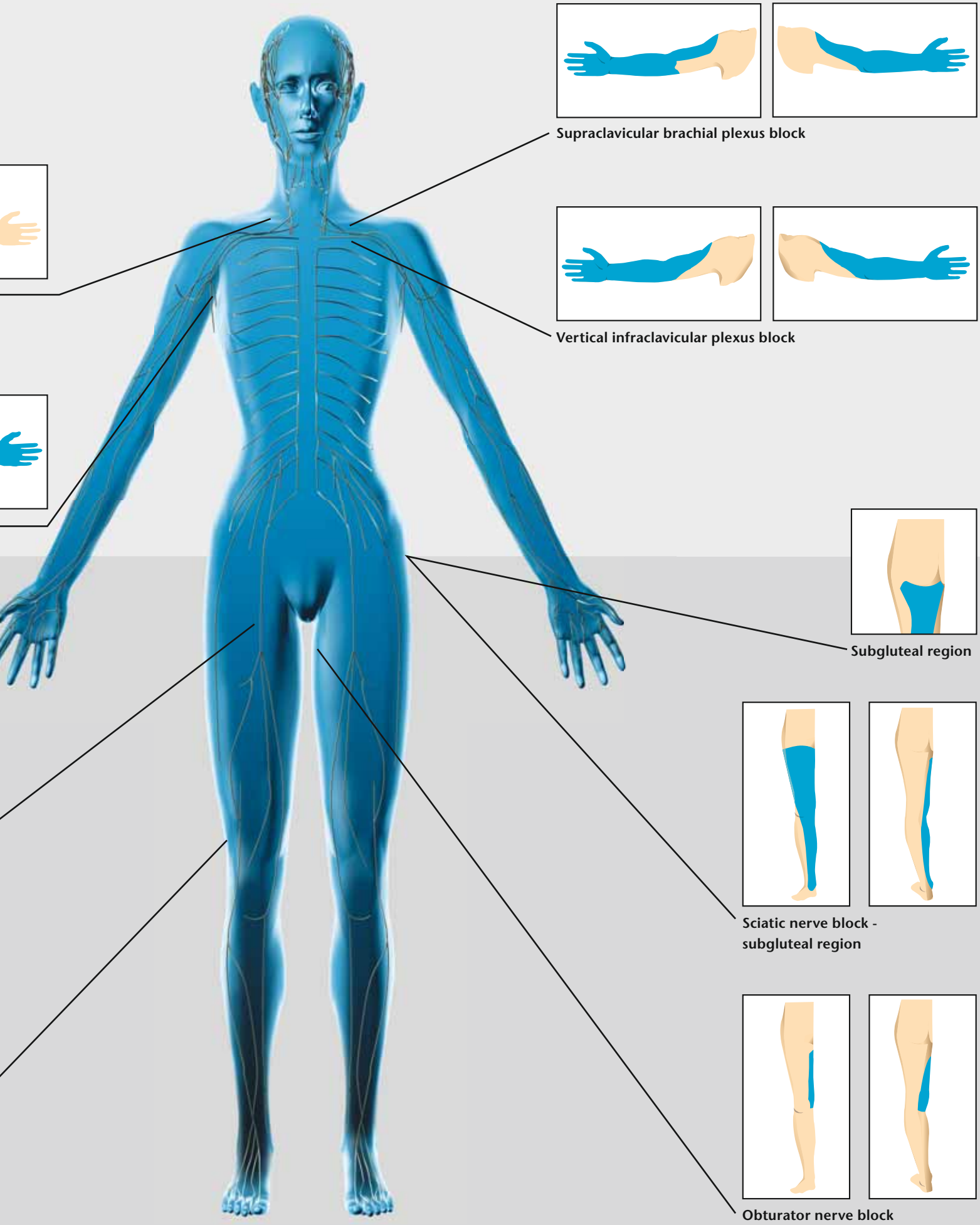
Lower extremities (lumbosacral plexus)



Femoral nerve block



Sciatic nerve block


Supraclavicular brachial plexus block
Vertical infraclavicular plexus block
Subgluteal region
Sciatic nerve block -
subgluteal region
Obturator nerve block

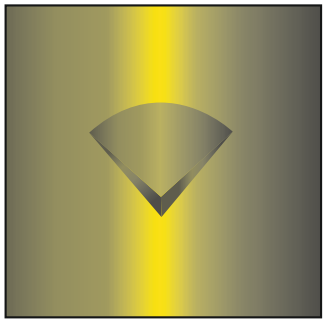
SonoPlex cannulae

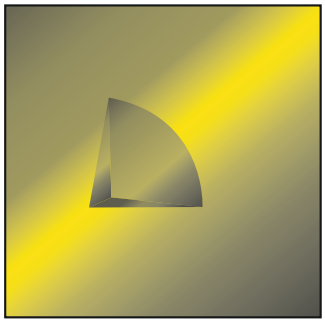
The system for more visibility and safety under ultras

The method of ultrasound monitoring is increasingly gaining importance in regional anaesthesia. Today even the finest anatomical structures including peripheral nerves can be identified in detail and anaesthetised selectively under viewing using modern high-resolution ultrasound scanners. This method supports the traditional procedure by means of nerve stimulation.

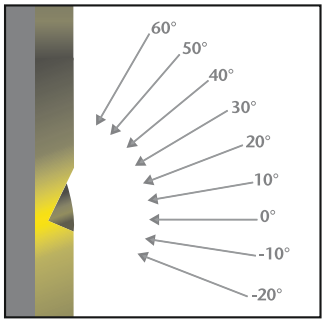
But daily practice has shown, that it is not at all that easy to identify the cannula tip definitely and clearly on the viewing screen of the ultrasonic device. Before this background, PAJUNK® has developed the CornerStone reflectors in cooperation with Dr. Chris Mitchell and has thereby launched a new cannula generation, with a 100%-reflection-guarantee under ultrasound monitoring.

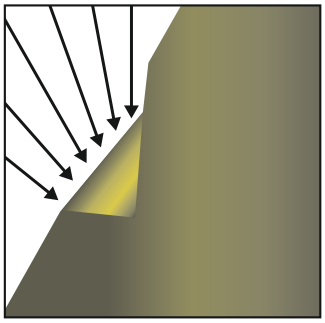
Ultrasound marker with 100 % reflection guarantee





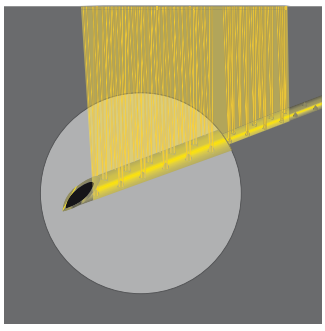
The „Corner Stone“ reflectors developed by **Dr Chris Mitchell** are structured so that all ultrasound waves are reflected without losses.

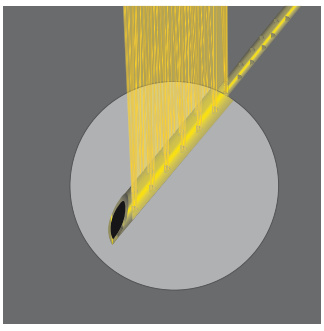




This provides optimal visibility of the cannula tip and it can be identified with absolute certainty.

Visibility – regardless of the puncture angle.





The nature of the „CornerStone“-reflectors renders optimal reflection properties.

The reflective behaviour at this optimal performance level is warranted at steep puncture angles, and at flat puncture angle as well.

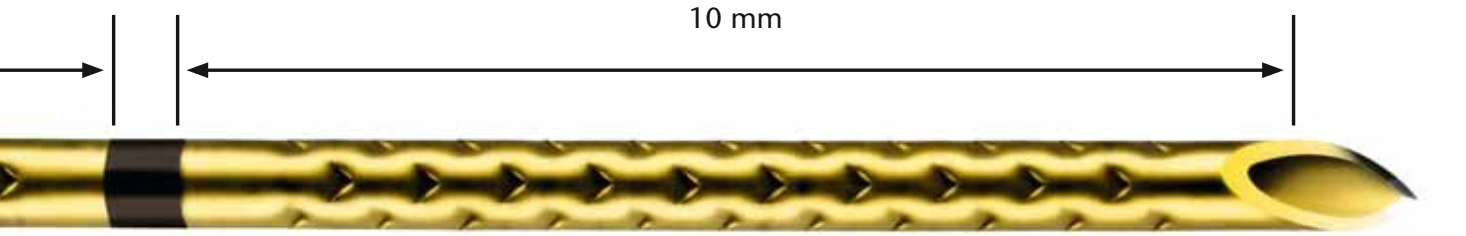
• Hilary Edgcombe and Graham Hocking, Sonographic Identification of Needle Tip by Specialists and Novices, Regional Anesthesia and Pain Medicine, Volume 35, Number 2, March-April 2010

ound monitoring

Perfect gliding qualities and coating

The cannulae are coated using the innovative NanoLine-technology.

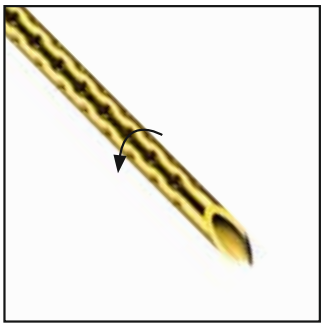
➡ This guarantees for perfect gliding qualities, it increases visibility under ultrasound-monitoring, and it permits precise stimulation through the uncoated tip.



Clear identification

The distal end is supplied with two pattern-embossed sections, both 10 mm long.

➡ So the reflection of the ultrasonic waves occurs along a total length of 20 mm.



The cannula segments have respectively been provided with a circumferential array of „CornerStone“ reflectors arranged in 60°-angles.

➡ The perfect identification of the cannula is therefore ensured in every position.

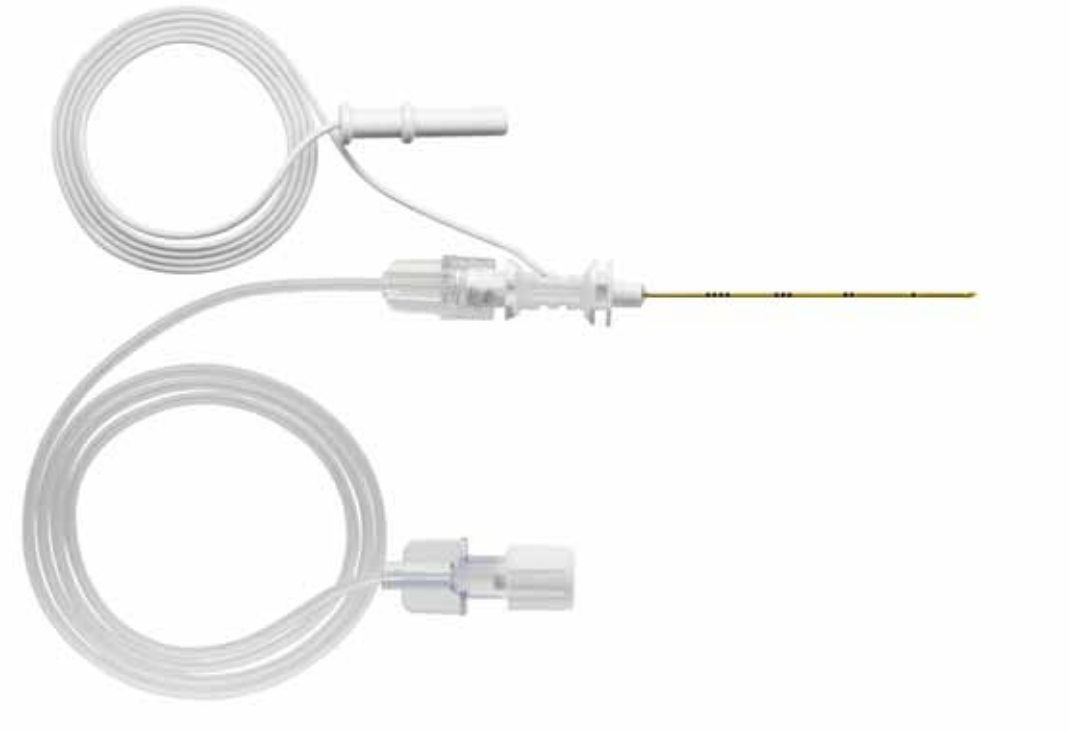
SonoPlex cannulae

Single shot peripheral nerve block anaesthesia under

The SonoPlex cannulae were developed by PAJUNK® especially for the single shot application, to be used in peripheral nerve block anaesthesia.
They are alternatively available in the following versions:

SonoPlex cannulae with NanoLine coating, without connector cable

SonoPlex cannulae with NanoLine coating and with connector cable for stimulation



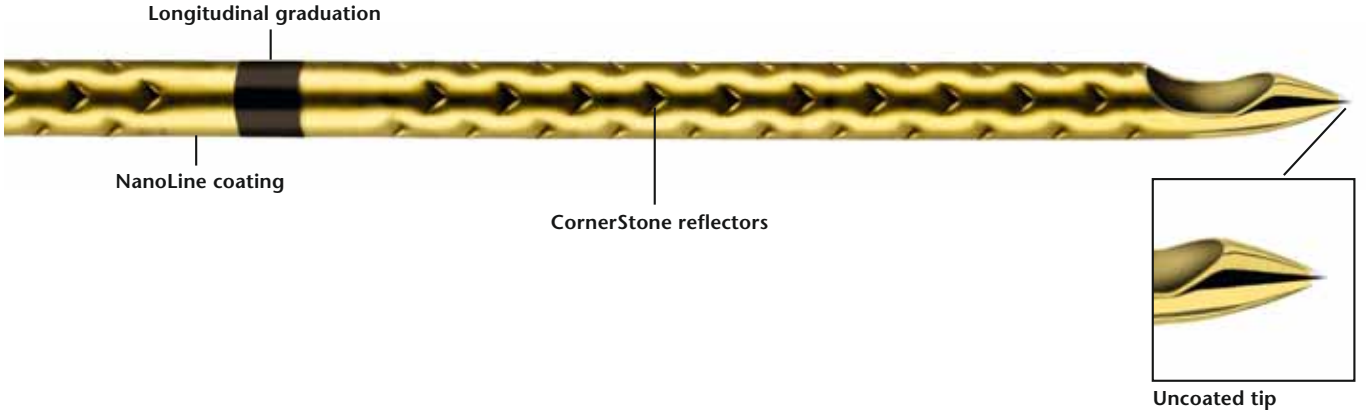
The adaptable injecting tube permits simultaneous aspiration and injection.
It can be removed by the anaesthetist at any time, if it gets in the way during work.

ultrasonic monitoring

Depending on personal preferences of the anaesthetist, the SonoPlex cannula is available in two types of tip geometries

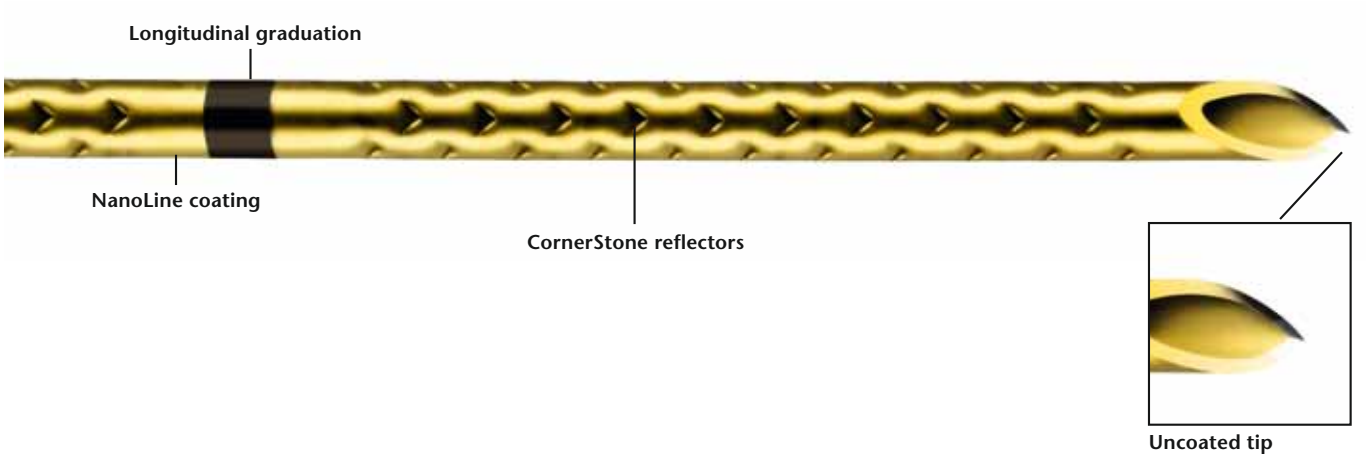
The SonoPlex cannula with SPROTTE® tip

The closed tip of this cannula assists the anaesthetist in the atraumatically precise localization of the nerve.



The SonoPlex cannula with facet tip

This special facet tip reduces the risk of injury to a minimum, in comparison with conventional, sharp cannulae.



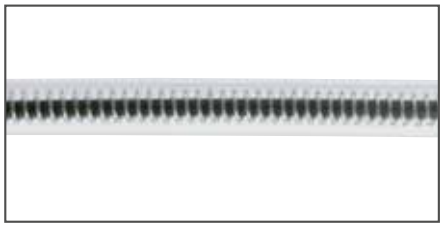
SonoLong kit

For continuous peripheral nerve block anaesthesia under

With the PlexoLong NanoLine kit according to Meier, PAJUNK® has, as the first and the only manufacturer, initiated a system, by which the catheter is introduced in sterile condition directly from a container through the cannula, and the anaesthetic is injected through the catheter. This patented technique has established itself successfully on the market and has aroused a great response and recognition in the professional world.

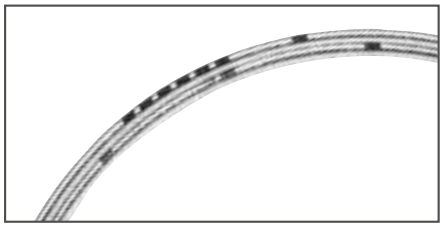
Now, in the next evolutionary step, the cannulae of the PlexoLong kit are equipped with CornerStone reflectors. This SonoLong kit is excellently suitable for the performance of the continuous techniques under ultrasonic monitoring.

The kit consists of:
- SonoLong cannula with CornerStone reflectors – optionally available with SPROTTE®-SPECIAL cannula, Tuohy cannula and cannula with facet tip
- Catheter in the catheter cassette
- FixoLong system
- Colour coded adapter



Steel stylet
The catheter of the SonoLong kit has been provided with a steel stylet, which is locked in place in the introductory aid at its end, and is removed together with the container after the application of the catheter.

➡ This gives the catheter maximum stability.

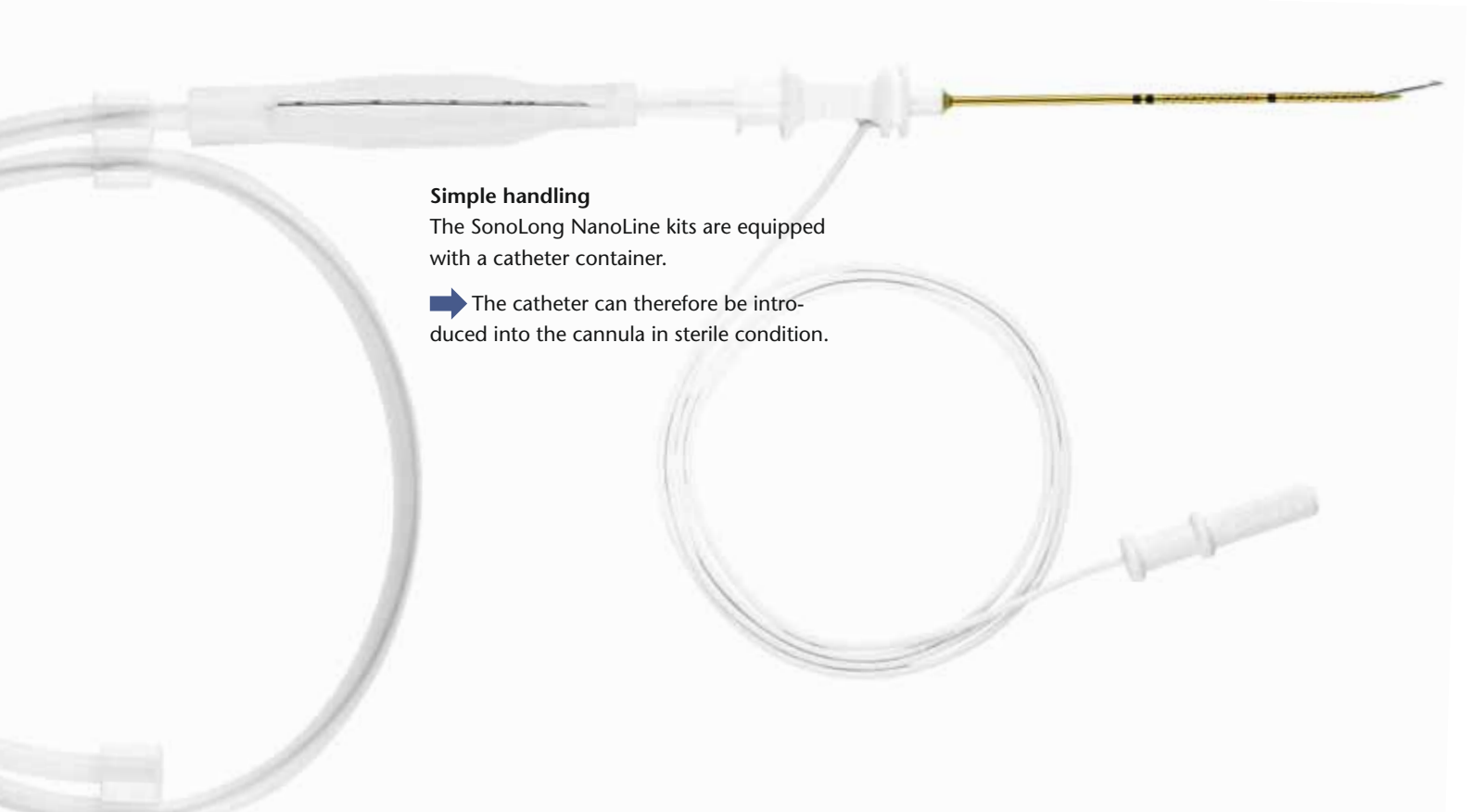


Ascending depth graduation
The catheter with a length of 50 cm has been provided with an ascending depth graduation up to a length of 30 cm in intervals of 5 cm.

➡ Its position can therefore be determined exactly at any time.

Catheter with central orifice
The centre of the radiopaque catheter is open.

➡ This ensures the free flow of the anaesthetic – particularly in connection with the post-operative injection pump.



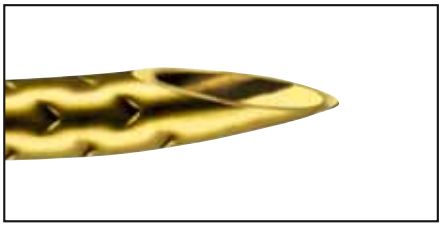
Simple handling
The SonoLong NanoLine kits are equipped with a catheter container.

➡ The catheter can therefore be introduced into the cannula in sterile condition.

ultrasonic monitoring

There are three cannula types available to choose from
The SonoLong kit is alternatively fitted with three different cannula types: While the facet tip cannula is exclusively placed parallel to the nerve, the SPROTTE®-SPECIAL cannula and the Tuohy cannula are suitable for those cases, where it is necessary to introduce the catheter at an angle to the nerve.

Cannula with facet tip



Tuohy cannula

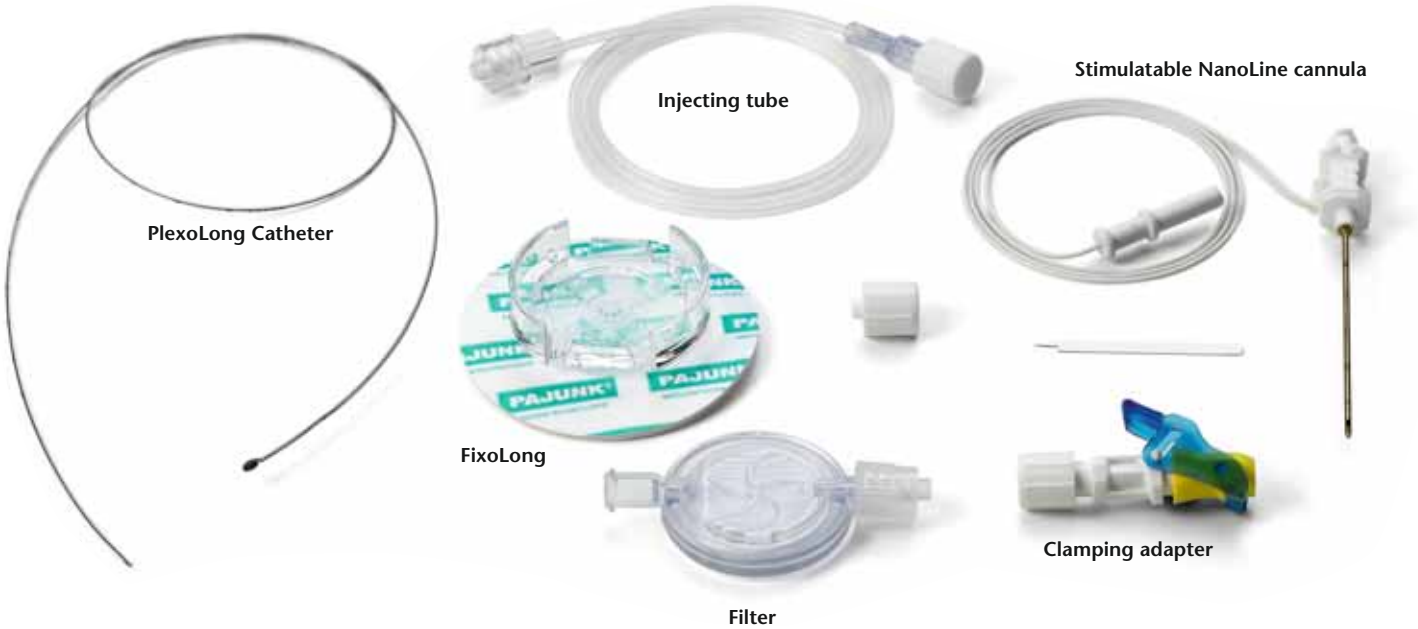
SPROTTE®-SPECIAL cannula

Clear and definite identification
The cannulae are equipped with two pattern-embossed sections, each having a length of 10 mm, which have been provided with CornerStone reflectors.

➡ This guarantees an optimal reflection of the ultrasonic waves along a total length of 20 mm.

Perfect gliding qualities
The SonoLong cannulae are coated using the innovative NanoLine-technology.

➡ This ensures for perfect gliding qualities, it increases visibility under ultra-sound-monitoring, and it permits precise stimulation through the uncoated tip.



SonoGuide-Tsui

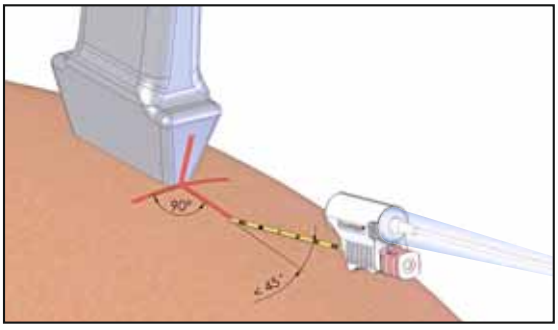
For the „on-the-dot“ puncture under ultra sound mo

The SonoGuide-Tsui was developed by PAJUNK® as a perfect guide for the ultrasonically supported puncture. It permits the unerring and precise identification of the puncture point and –angle.

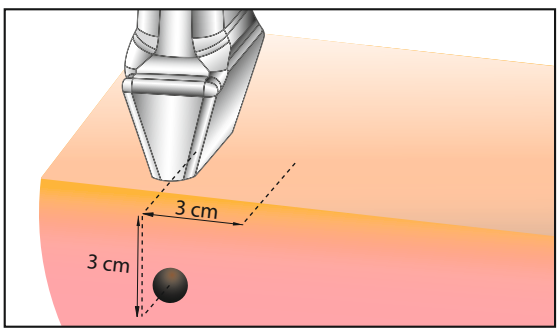
Simple handling

1. Preparation
The laser pointer SonoGuide-Tsui is mounted directly onto the cannula hub by means of a sterile disposable covering.

2. Cross-lines
This laser pointer projects cross-lines onto the ultrasound transducer which start out from the puncture cannula, and it ensures, that the cannula is positioned vertical to the desired transducer axis.

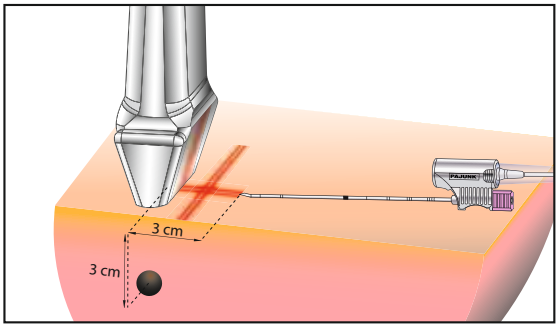


3. Identification of the target nerve
First, the target nerve is identified on the ultrasound image and the distance between the nerve and the transducer is measured.

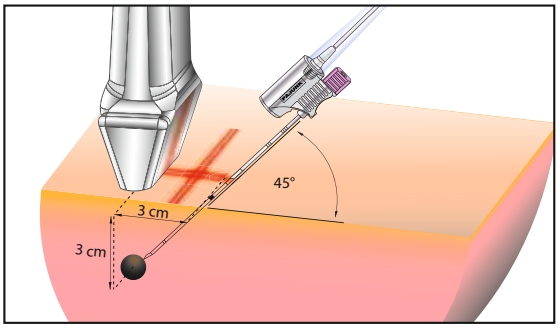


nitoring

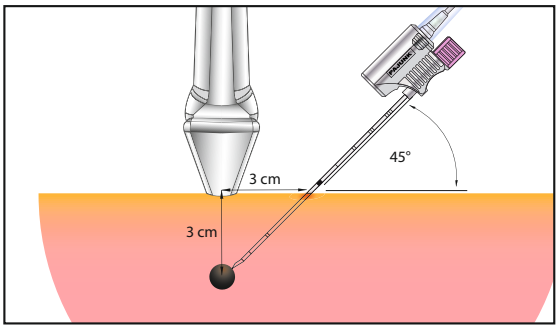
4. Placement of the cannula
While placing the cannula the perpendicular laser line has to be positioned in the middle of the ultrasound probe and the horizontal laser line has to be in a 90° angle.



5. Determination of the puncture position and angle
With a puncture angle of 45° the distance of the puncture position to the midline of the ultrasound probe equals the same distance than ultrasound probe to nerve.



6. The puncture
After the puncture position and the puncture angle have been defined, the cannula is introduced in the defined distance (3 cm). The tip of the cannula will therefore exactly reach with the localised nerve.



SonoGuide-Tsui

Product

SonoGuide-Tsui	Art.-Nr.	VE
reusable, incl. battery box	1151-50-19	1

Sterile disposable covering for the SonoGuide-Tsui for PAJUNK® UniPlex, PlexoLong and SonoPlex cannula	001151-42	10

• Tsui BC. Facilitating needle alignment in-plane to an ultrasound beam using a portable laser unit, Reg Anesth Pain Med. 2007 Jan-Feb;32(1):84-8.

The complete SonoSystem:

All the information at a glance

SonoPlex cannula

SonoPlex

SonoPlex Stim

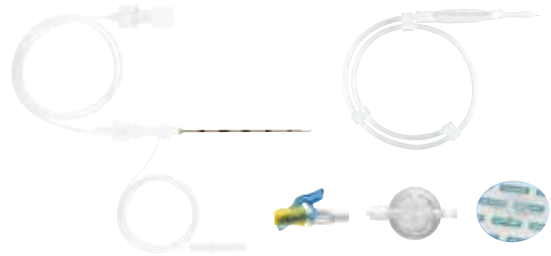
with facet tip

SonoPlex	Item no.	PU
22 G x 40 mm	001180-70	10
22 G x 50 mm	001180-74	10
22 G x 80 mm	001180-71	10
21 G x 100 mm	001180-77	10
20 G x 120 mm	001180-72	10
SonoPlex Stim		
22 G x 40 mm	001185-70	10
22 G x 50 mm	001185-74	10
22 G x 80 mm	001185-71	10
21 G x 100 mm	001185-77	10
20 G x 120 mm	001185-72	10
20 G x 150 mm	001185-76	10

with SPROTTE® tip

SonoPlex	Item no.	PU
22 G x 50 mm	001180-31G	10
22 G x 70 mm	001180-31H	10
22 G x 90 mm	001180-31J	10
SonoPlex Stim		
22 G x 50 mm	001185-31G	10
22 G x 70 mm	001185-31H	10
22 G x 90 mm	001185-31J	10

SonoLong NanoLine



All SonoLong NanoLine Sets are supplied with:

- SonoLong facet tip, Luer Lock with electrical connector cable
- Adaptable injection tube
- PlexoLong Catheter 20 G x 50 with integrated metal helical coil and central opening
- Clapmping adapter (yellow)
- Filter 0,2 µm
- FixoLong

Product	Size	Catheter	Item no.	PU
Facet tip				
	19 G x 50 mm	20 G x 50 cm	531185-31A	10
	19 G x 100 mm	20 G x 50 cm	521185-31A	10
	19 G x 150 mm	20 G x 50 cm	511185-31A	10
SPROTTE® special tip				
	19 G x 60 mm	20 G x 50 cm	531185-31B	10
	19 G x 120 mm	20 G x 50 cm	521185-31B	10
Tuohy tip				
	18 G x 50 mm	20 G x 50 cm	531185-31C	10
	18 G x 100 mm	20 G x 50 cm	521185-31C	10

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