# PAJUNK®

## TAP Block

Kits for single shot and continuous techniques

Abdominal blocks

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## The ultrasound guided TAP blocks Regional anaesthesia in abdominal surgery

Abdominal blocks, in particular TAP blocks (transverse abdominis plane blocks) and rectus sheath blocks, are increasingly being used for the management of postoperative pain from abdominal surgery. They are applicable to day surgery, have a low side effect profile and offer an alternative to epidural anaesthesia for abdominal surgery. Ultrasound guidance has improved the accuracy of inserting abdominal blocks but cannula tip visibility has been a problem.

## The characteristics SonoTAP cannula for single shot techniques

The SonoTAP cannula has been designed especially to meet the requirements for single shot TAP and rectus sheath blocks. It is available in different sizes: 21 G x 110 mm, 22 G x 80 mm.



SonoTAP cannula with facet tip



**Ultrasound markers for guaranteed optimal reflection** The patented "Cornerstone" reflectors developed together with Dr Chris Mitchell are structured to reflect ultrasonic waves with maximal intensity.

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



**Visibility** – regardless of the puncture angle The orientation of the "Cornerstone" reflectors has been designed to maximize reflection when the cannula is inserted at steep puncture angle.

This has the effect of make the cannula higly visible at all angles of insertion.

As the forerunner in the field of regional anaesthesia, PAJUNK<sup>®</sup> has developed the Sono range of cannula, designed specifically to optimize cannula tip visibility. The aim is safe, reliable analgesia. PAJUNK<sup>®</sup> offers two systems for the performance of TAP and rectus sheath blocks:

- The SonoTAP cannula for single shot techniques

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- The InfiltraLong Sono kit with a Tuohy cannula for the continuous techniques





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#### Definite and clear identification

The distal end has been provided with two pattern embossed sections, each having a length of 10 mm.

They generate a clear, echoic pattern over the first 20 mm at the tip of the cannula and simplify the visualisation of the cannula tip. This echoic field is generated by the "Cornerstone" reflectors arranged around the cannula. Rotation of the cannula can therefore not impair the visibility.

### Facet tip

The injection space for the TAP block is limited and lies relatively deep.

The SonoTAP cannula with "Cornerstone" reflectors and facet tip offers double safety: One the one hand, the clear identification under ultrasound. On the other hand, the facet tip guarantees precise tactile localisation.

# The characteristics InfiltraLong TuohySono for continuous techniques

🔷 InfiltraLong Sono catheter



The continuous techniques are then of interest when the pain relief is required beyond the duration of the unilateral technique. In this case, an InfiltraLong catheter can be introduced by the TuohySono cannula. The special arrangement and the precision of the catheter perforation guarantees uniform distribution of the anaesthetic.



#### **Continuous flow**

The integrated stainless steel guarantees a uniform, continuous flow of anaesthetic. Furthermore, it exhibits a good contrast under X-ray and is visible under ultrasound.

It provides lasting relief from pain for the patient – irrespective of the pressure acting on the catheter. The position can be checked at any time.



#### **Micro perforations**

It is absolutely precise and runs at uniform intervals spirally around the catheter.

That guarantees freedom from pain and a uniform distribution of the anaesthetic in a radius of 360°.





The TuohySono cannula is used for the continuous TAP and rectus sheath blocks. Equipped with the patented "Cornerstone" reflectors, it ensures that the ultrasonic waves are maximally

reflected at both steep and shallow puncture angles. This is an essential prerequisite for the precise placement of the cannula in the appropriate neurovascular plane.





**Ultrasound markers for guaranteed optimal reflection** The "Cornerstone" reflectors have been developed by PAJUNK<sup>®</sup> in cooperation with Dr Chris Mitchell. They are structured so that ultrasonic waves are reflected at maximal intensity.

The cannula is therefore optimally visible, and the cannula tip can be identified with absolute certainty.



Definite and clear identification

The "Cornerstone" reflectors are circumferentially arranged along two embossed sections at the distal end of the Tuohy cannula, each having a length of 10 mm.

The reflection of the ultrasonic waves is therefore ensured along a total length of 20 mm.



**Tuohy tip** The curved tip of the TuohySono cannula permits optimum catheter positioning.

## SonoTAP Fields of application and technique

#### TAP block, rectus sheath block, ilioinguinal and iliohypogastric nerve block:

#### Unilateral blocks for:

- → Appendix removal
- → Hernia operations (supported by block of the nervus genito femoralis)
- → Caesarean section
- → Hysterectomy
- → Prostatectomy

#### **Bilateral blocks for:**

- → Midline incisions
- → Laparoscopic operations

These techniques form an integral part of the multi-modal anaesthesia concept.

#### Performance of a TAP block under ultrasound monitoring

Tactile determination of the starting point for the TAP block.



To perform a TAP block under ultrasound monitoring, the transducer is positioned perpendicular to the abdominal wall – along the centreline between the lower costal arch and the pelvic crest. The skin, subcutaneous tissue, fat, the external oblique muscle of the abdomen, the internal oblique muscle of the abdomen, and the transverse abdominal muscle may be identified on the ultrasound image. The peritoneum and intestinal loops are visible in a layer below the muscle cords.



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The cannula is introduced at the plane of the ultrasound probe directly under the transducer and is advanced forward until it has reached the plane between the internal oblique muscle and the transverse abdominal muscle. Saline solution is administered as soon as the plane has been reached, to ensure the correct position of the cannula. The injection will render the course of enlargement of the plane of the transverse abdominal muscle visible (it will appear as a hypoechoic space).

If analgesia is required beyond the duration of single shot regional anaesthesia, then a catheter may be introduced into the oblique abdominal wall by way of a Tuohy cannula. After the enlargement of the plane with saline solution, the catheter is positioned beyond the tip of the cannula. This position is verified by the injection of the local anaesthetic.



## All the information at a glance SonoTAP cannula



Product	Size	ltem no.	PU
SonoTAP cannula cannula with facet tip and "Cornerstone" reflectors	22 G x 80 mm	1185-3E080	25
SonoTAP cannula cannula with facet tip and "Cornerstone" reflectors	21 G x 110 mm	1185-3F110	10



Product	Size	ltem no.	PU
InfiltraLong TuohySono kit			
TuohySono cannula with "Cornerstone" reflectors, InfiltraLong catheter 19 G x 600 mm with flexible tip	17 G x 90 mm	001185-20B	10
and 15 perforations along the first 40 mm, Filter, FixoLong, Clamping adapter			

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