

PAJUNK®

**EpiLong
EpiLong Soft
EpiLong Soft Sono**

Regional Anesthesia



Instructions for Use

Special notice



Please read the following information and operating instructions carefully!



Caution: Federal law restricts this device to sale by or on the order of a physician.

The device may only be used by qualified medical staff in accordance with these user instructions.

PAJUNK® does not recommend any particular treatment method. Professional medical staff are responsible for the way in which the device is used and for patient selection.

In addition to these instruction for use, the relevant information also applies according to the corresponding specialist literature and current state of the art and knowledge.

Failure to comply with the user instructions invalidates the warranty and puts patient safety at risk.

If used in combination with other products, it is essential that the compatibility information and user instructions for these other products are taken into account. A decision regarding the combined use of devices from different manufacturers (where they do not constitute treatment units) is the responsibility of the user.



The device must not be used under any circumstances if there are good reasons to suspect incompleteness, damage or loss of sterility.

Only devices in perfect condition, which are within the sterile expiry date marked on the label, in undamaged packaging, may be used.

Product specification / compatibility



Please see the current declaration of conformity for product numbers and the scope of these instructions for use.

EpiLong/ EpiLong Soft/ EpiLong Soft Sono are provided by PAJUNK® in convenient kits consisting of:

- Cannula: Tuohy tip/SPROTTE® SPECIAL tip
- Catheter (with/without mandrin, with/without helical coil) in bag
- ClampingAdapter
- Catheter insertion aid („feeder“)
- Locking cap
- Bacterial filter 0,2 µm
- FixoLong (optional)
- FixoCath (optional)
- LOR-Syringe

The exact composition may be gathered from the label.

Hub connectivity: LUER or NRFit®

Intended use

Puncture, access to the target area, aspiration, injection, catheter placement.

The catheters are intended to remain in the target area (epidural space) and constantly deliver a local anaesthetic from an external source.

 *Indwelling time for the continuous system: 7 days (168h)*

 PAJUNK® cannulas or catheters can be introduced into the body under ultrasound, fluoroscopic or CT guidance.

 **Warning:**

Do not use catheters with an internal stylet, internal spiral or stimulating electrodes and cannulas for MRI techniques!

After fitting, it is essential that you either attach the „Not suitable for MRI“ label supplied to the catheter or mark it clearly to this effect according to your institution's rules so that third parties are aware of this.

Indications

Single-shot or continuous epidural block for surgical anesthesia, obstetrical analgesia, postoperative analgesia and treatment of chronic pain or as a complement to general anesthesia.

Contraindications

Device-specific contraindications

 *Under no circumstances is the device to be used in the event of known material incompatibilities and/or known interactions.*

Clinical contraindications

Absolute contraindications:

- Patient refusal
- Poorly controlled bleeding diathesis or anticoagulation (coagulation disorders)
- Systemic infection (sepsis/ bacteremia)
- Local infection at the site of injection
- Local malignancy at the site of injection
- Weakened immune system
- Strong, de-compensated hypovolemia, shock
- Uncontrolled diabetes mellitus

Relative contraindications:

- Specific neurological disorders
- Specific cardiovascular disorders
- Allergic reaction/ hypersensitivity to the administered agents (contrast, anesthetic or corticosteroid)
- Severe deformations of the spine, arthritis, osteoporosis, spinal disc herniation or condition after spinal disc surgery

- Condition after spinal fusion, spinal metastasis
- Recent consumption of non-steroidal anti-inflammatory medications
- Unexperienced user

Complication

Device-specific complications

Cannula: Cannula bending, breakage, occlusion, leakage at the cannula hub

Catheter: Catheter breakage, catheter shearing, catheter bending, catheter knotting, reduced/absence of flow (occlusion), catheter disconnection.

Procedure-specific complications

Cannula: Undesirable positioning of the cannula (e.g. intravascular, intraneural, etc.), repeated puncture/redirection of the cannula, failed procedure.

Catheter:

During placement:

Inability to place catheter tip within epidural space (result in catheter knotting or shearing on the introduction cannula tip), accidental intravascular catheter placement, accidental subarachnoid catheter placement, difficulty in advancing the catheter (may result in catheter kinking).

During application:

- Technical problems resulting in premature discontinuation of epidural analgesia can be due to catheter disconnection, catheter obstructions (occlusion); leakage at the catheter exit site.
- Premature discontinuation of epidural analgesia due to catheter-related infections
- Catheter migration

During removal:

Resistance when removing the catheter resulting in catheter breakage.

Clinical complications

- Local and systemic infections
- Neuronal damage (during cannula/catheter placement, which may result in temporary increase in pain, temporary motor weakness, transient back or extremity pain, numbness and/or tingling, paraplegia)
- Accidental vascular punctures with corresponding complications (vascular lesions, bleeding/ bruising, hematoma, vasovagal reactions, intravascular injection etc.)
- Intra-arterial injection (direct injection into the spinal cord, vertebral artery or radicular artery include spinal cord infarct, epidural hematoma and brainstem hemorrhage, neurological events, vascular complications, thrombosis or thromboembolism)
- Accidental puncture of the dura with corresponding complications

- *Dura puncture and liquor loss*: post-spinal head or back ache, nausea, vomitus, neurological damage, epidural hematoma, epidural abscess
- *Anaesthetic in the subarachnoid space*: Circulatory disorders, decrease of the body temperature, urinary retention, respiratory side effects and complications, extremities weakness, total spinal anaesthesia, cauda-equina syndrome
- Toxicity of local anesthetic

 Users must inform patients of complications typically associated with the procedure.

 If complications occur while using the device, follow the protocols of your organisation. If this does not resolve the complications, or if they are regarded as serious or untreatable, carefully stop the procedure and remove invasive device components from the patient.

Warnings

 for sterile product:

This is a disposable medical device for use with only one patient!

 This device must not be re-used under any circumstances!

 This device must not be re-sterilised under any circumstances!

The materials used in the manufacture of this device are not suitable for reprocessing or re-sterilisation.

This device is not designed to be reprocessed or re-sterilised.

 Unauthorised re-use or reprocessing

- can cause the device to lose the essential performance properties intended by the manufacturer.
- leads to a significant risk of cross-infection/ contamination as a result of potentially inadequate processing methods.
- may cause the device to lose functional properties.
- may cause materials to break down and lead to endotoxic reactions caused by the residues.

 for puncture:

1. Take care to use devices of suitable dimensions (diameter, length), especially when treating obese patients and children.
2. To avoid bending or breaking of the cannula, never apply excessive force to the cannula.
3. If you unexpectedly come into contact with bone, change the direction of the cannula. Do not try to overcome bone resistance. Failure to adhere to these rules could cause the cannula to bend or break.
4. Repeated bone contact will damage the cannula tip. On no account you should continue to use a cannula damaged in this manner. In case of previous bone contact, remove the cannula (with introduced stylet) in one step.

 *for catheter placement and removal:*

1. Check that the catheter will pass through the cannula immediately before use.
2. The tip of the cannula can be damaged by bone contact during insertion. If a catheter is passed through a cannula that is damaged in this way, it can itself become damaged. If this happens, use a new cannula.
3. Once the catheter has left the tip of the cannula, do not retract the catheter as there is a risk of shearing.
4. If blood (or cerebrospinal fluid in the case of epidural applications) is visible in the catheter return window or in the piston chamber of the syringe, remove the catheter and reattempt puncture. The catheter was incorrectly positioned.
5. If the procedure is interrupted, remove the catheter and the cannula together if possible.
6. If flow is impeded, check the locking mechanism of the adapter.
7. When using catheters with a closed tip and lateral openings, extend the catheter at least 15 mm (no more than 50 mm) beyond the tip of the cannula to ensure unimpeded injection.
8. Never insert the catheter more than 50 mm. It is more likely to become knotted if it is inserted more than 50 mm.
9. Ensure that the catheter is not kinked on fixing.
10. Be sure to check the connection between the catheter and the infusion devices regularly.
11. Do not tug the catheter or pull it sharply when removing it from the patient.
12. Do not exert excessive force when removing the catheter. Do not continue to pull the catheter if it starts to stretch too much.
13. If you detect resistance while removing the catheter, do not withdraw it any further. If necessary, reposition the patient so as to enlarge the gap between the vertebrae. Then try to withdraw the catheter again. If this is still difficult, investigate with fluoroscopy or an X-ray before taking any further action.
14. After removing the catheter, check the distal tip to see whether it is complete. The tip should be intact. Only in this case you can be sure that the entire catheter has been removed.

 *for injection:*

1. Always ensure that the injection site is aseptic.
2. Do not administer drugs that are not indicated for the intended use.
3. Aspirate before the injection of medication. If you observe blood in the cylinder of the syringe, then the cannula has been introduced improperly. **TERMINATE THE PROCEDURE.**
4. Be sure to check the connection between the cannula/ catheter and the infusion device constantly.

 for use with other compatible products:

1. When using multiple components, familiarise yourself with their operation before use by checking connections and passages (cannulas, adapters).
2. When connecting the catheter to the ClampingAdapter, always make sure that the catheter is fully inserted into the ClampingAdapter as far as the stop (at least as far as the orientation mark). Never preflush before making the connection.
3. Disinfectants based on or containing alcohol can damage the filter.
4. The locking cap must be screwed on before you disinfect the filter.

 further warning indications:

1.  Caution: Sharp object warning. The device or device components may, depending on the type of tip, have sharp edges or tips. Various infectious pathogens can be transmitted if a stab wound occurs. The most relevant ones in practice are the human immunodeficiency virus (HIV), the hepatitis B virus (HBV) and the hepatitis C virus (HCV).
2. You must routinely take general precautions for handling blood and bodily fluids when using and disposing of the device, due to the risk of contact with blood-borne pathogens.
3. Please note that the continued use of a device of the same type must be assessed cumulatively as described in the legislation on medical devices, even after the device has been exchanged or replaced.
4. Avoid build-up of fluid film between the catheter and Clamping Adapter (e.g. through fluids on gloves). Fluids on the proximal end of the catheter can affect the holding force and result in disconnections and/or leakage.

Sequence of use

Catheter placement is performed with the patient in sitting or lateral decubitus position with his back arched to maximize the opening of the vertebral interspaces.

Puncture site is identified and marked. After skin disinfection and sterile covering of the puncture site, local anaesthesia of the skin and of the subcutaneous tissue is performed by injecting a local anaesthetic.

A perforating incision is performed at the puncture point using a lancet or an injection cannula with a large lumen.

Placement of a catheter in the epidural space

1. Advance an epidural cannula (Tuohy/SPROTTE® SPECIAL cannula) into the interspinous ligament. Remove the stylet.

Identify the epidural space, e.g. using the Loss-of-Resistance (LOR) method, the Visual Pressure Control (VPC) or the Hanging Drop method.

2. The cannula is advanced carefully into the epidural space.

3. Careful aspiration is required to exclude intravascular cannula placement.
4. The distal end of the catheter is introduced into the cannula. The catheter is advanced through the cannula up to the desired depth. The catheter should not be advanced more than 5 cm beyond the cannula tip.
5. Then the cannula is retracted carefully over the catheter.
6. The catheter is fixed in this position under sterile conditions with a FixoLong.
7. The catheter is now connected to a Clamping Adapter. The proximal end of the catheter is therefore introduced into the central opening of the adapter and advanced up to the marking of insertion depth and locked in this position.
8. A bacterial filter is attached to the Luer Lock connection of the Clamping Adapter, and a test dose of local anaesthetic is administered through the catheter.

Fastening of the FixoLong (optional)

1. Fasten the PAJUNK® FixoLong with the fixed catheter cross in the vicinity of the catheter exit.
2. Lock the catheter in the fastening clips. This guarantees maximum freedom of movement while simultaneously fixing the catheter.
3. Place the filter base on the catheter cross.
4. Secure the bacterial filter on the filter base.

Fastening of the FixoCath (optional)

1. Hold the catheter over the incised side of the FixoCath securing plaster at the position of the catheter outlet.
2. Remove the three adhesive strips at the lower part of the securing plaster and fasten the plaster to the skin.
3. Now remove the longitudinal adhesive strips on the foam padding and place the catheter over it.
4. Remove the adhesive film of the perforated cover plaster and secure this over the catheter.

Use and storage conditions



Temperature limit +10 °C to +30 °C



Humidity limitation 20 % to 65 %



Keep away from sunlight



Keep dry

General information

The devices are manufactured in accordance with globally applicable guidelines for hazardous substances.

 Non-pyrogenic

 Any serious incident that has occurred while using the device should be reported to the manufacturer and the corresponding authorities of the country the user and/or patient are residing in.

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Key to symbols used in labelling

	Manufacturer		Non-pyrogenic
	Use-by date		Caution: Federal law restricts this device to sale by or on the order of a physician
	Catalogue number		MR unsafe
	Sterilized using ethylene oxide		Advice
	Do not re-sterilize		Information
	Do not use if package is damaged		Product is in conformity with the applicable requirements set out in Community harmonization legislation and is monitored by a notified body
	Keep dry		Sharp object warning
	Humidity limitation		Does not contain Phthalates (acc. to sec.)
	Do not re-use		Natural rubber latex has not been used as a component in the manufacture of this product
	Caution		Quantity
	Date of manufacture		Hub connection: NRFit® according to ISO 80369-6
	Batch code		Translation
	Keep away from sunlight		Medical device
	Temperature limit		
	Consult instructions for use		

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