TrokaBone / TrokaCut
Aspiration and puncture cannulas for bone marrow biopsy
The manufacture of cannula systems for biopsy has been the core competence of PAJUNK® for more than 45 years. Together with health professionals of various medical disciplines, PAJUNK® develops well-conceived solutions for bone marrow biopsy, fine-needle aspiration, cutting and punch biopsy, brachytherapy and tumour markers. PAJUNK® offers three systems in the field of bone marrow biopsy: TrokaCut, TrokaBone and TrokaBone Sternal. They differ with respect to material usage, design and the field of application.

**TrokaCut**
the combined aspiration and punch cannula for iliac crest puncture

The outer cannula and the solid stylet of the TrokaCut are firmly interlocked by the polymer bayonet lock.
**TrokaBone**
the combined aspiration and punch cannula for iliac crest puncture

**TrokaBone Sternal**
the puncture kit for aspiration of bone marrow from the iliac and sternum region

A stable metal anchoring system is used to fasten the outer cannula in the handle for **TrokaBone**. This complete system is manufactured of durable materials and is characterised by its excellent stability and the ergonomic handle.

Tip with bevelled hollow grinding  
Tip with trocar grinding  
Tip with bevelled grinding
**TrokaCut**

**The complete system for bone marrow puncture**

The TrokaCut puncture set from PAJUNK® is a cost effective complete system for the extraction of bone marrow samples. It is very easy to use during puncture and aspiration.

**One-time biopsy**

The TrokaCut kit includes a stable solid stylet with a sharp tip and bevelled hollow grinding as well as an outer cannula with ejection stylet that are both provided with a graduation. The introductory aid covers the sharp tip of the outer cannula when extracting specimen and therefore prevents injuries.

**Biopsy safety**

It is recommended to use an inner cannula with a biopsy chamber for a biopsy. This inner cannula collects the sample when penetrating and can be pulled out for extraction without having to change the position of the outer cannula.
The outer cannula with its very sharp, wavelike tip penetrates easily the inside of the bone under rotation.

Introductory aid

Ejection stylet with graduation

Integrated biopsy chamber
The sound locking
TrokaCut with bayonet lock

The outer cannula is advanced together with the solid stylet into the bone wall by turning clockwise and counterclockwise while applying firm and constant pressure. As soon as it penetrates and the resistance is reduced, the stylet is released from the bayonet lock, which means, it is turned by 90° and pulled out. The outer cannula with its very sharp, wavelike tip continues easily to penetrate the inside of the bone under rotation. The cannula tip is cylindrical and tapers towards the front. This eases collection and subsequent extraction of the sample. At the same time, its conical shape contributes to the tissue cylinder maintaining its structure during tissue extraction.

The essential features at a glance:
- Anatomically shaped handle
- Extremely sharp serrated grinding of the outer cannula
- Solid stylet of stainless steel with high stability
- Tapered outer cannula for simplified sample extraction
- Protected sample extraction by specially shaped cannula shaft
- Aspiration connection with Luer Lock connector
- Specially shaped inner lumen
- Bayonet lock
Sharp serrated grinding of the outer cannula
- Enables continued penetration of the outer cannula in the inside of the bone after removal of the solid stylet and collection of the bone marrow sample

Bayonet lock: full stylet and inner cannula are connected firmly to the outer cannula using a bayonet lock.

Cannula tip with sharp bevelled hollow grinding
- Simplifies puncture of the iliac crest in interaction with the rotation and pressure

Sharp serrated grinding of the outer cannula
- Enables continued penetration of the outer cannula in the inside of the bone after removal of the solid stylet and collection of the bone marrow sample

Inner cannula with integrated biopsy chamber
- Additional specimen protection and simple extraction
**TrokaBone**

*The robust complete system with stainless steel connection*

The TrocaBone puncture set from PAJUNK® consists of a modular system for the extraction of bone marrow samples. This kit is very easy to use for puncture and aspiration. Fitted with an ergonomic handle and made of durable stainless steel, TrokaBone is characterised by its high level of stability.

**One-time biopsy**

The TrokaBone kit includes a stable solid stylet. This is optionally available with a bevelled hollow grinding or trocar grinding. The outer cannula and ejection stylet are both provided with a graduation. The introductory aid covers the sharp tip of the outer cannula when extracting specimen and so reduces injuries.

**Biopsy safety**

It is recommended to use an inner cannula with a biopsy chamber for a biopsy. This inner cannula collects the sample when penetrating and can be pulled out for extraction without having to change the position of the outer cannula.
Robust anchoring system made of metal with Luer Lock Connection.

Introductory aid

Ejection stylet with graduation

Integrated biopsy chamber
TrokaBone

Biopsy cannula with alternative tip geometries

A bevelled grinding or trocar grinding is used to puncture at the iliac crest. The puncture cannula is advanced forward into the bone wall under clockwise / counterclockwise rotation while applying firm and constant pressure. As soon as it penetrates and the resistance is reduced, the stylet is pulled out. The outer cannula has a very sharp, serrated grinding. The cannula continues to penetrate into the inside of the bone under rotation without problem. The cannula tip is cylindrical and tapers towards the front. This eases collection and subsequent extraction of the sample. At the same time, its conical shape contributes to the tissue cylinder maintaining its structure during tissue extraction.

The essential features at a glance:

- Anatomically shaped handle
- Extremely sharp serrated grinding of the outer cannula
- Solid stylet made of stainless steel with high stability
- Cannula versions with bevelled grinding, trocar grinding and inner cannula
- Tapered outer cannula for simplified sample extraction
- Specially shaped inner lumen
- Aspiration connection with Luer Lock connector
TrokaBone Sternal

Puncture set of equipment for single biopsy

TrokaBone Sternal was developed by PAJUNK® for aspiration of bone marrow from the iliac and sternum region. The ergonomically shaped handle and the extremely sharp cannula grinding guarantees ease of use during puncture and aspiration.

The essential features at a glance:

- Anatomically shaped handle
- Extremely sharp cannula grinding
- Puncture cannula made of stainless steel with high stability
- Sample extraction by specially shaped cannula shaft
- Aspiration connection with Luer Lock connector

Compact, ergonomic handle with integrated Luer Lock connector

Variable insertion depth for exact positioning control. Working length: 5 – 25 mm

Cannula tip with sharp grinding

Custom-fit grinding between outer cannula and stylet
### TrokaCut

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### TrokaBone

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### TrokaBone Sternal

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