Suture Forceps
For use in reconstructive shoulder surgery on the humeral head
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Introduction

Suture forceps are designed to allow precise placement of sutures in the rotator cuff for anatomical repair. Sutures can be retrieved through the cuff in a retrograde fashion or passed through in an antegrade direction using these forceps under direct vision. Two styles of self-closing suture forceps are used: one with slight downward shaft curvature and upward-opening jaws, and one with a strongly downward shaft curvature and downward-opening jaws. Use of the two forceps allows for easy suture management and retrieval through the rotator cuff from any portal. The system is versatile, allowing multiple suture techniques to be utilized to suit individual cuff tear patterns and surgeon preferences.

Advantages

- Anatomical design of suture shuttle instrument sheath
- Special design for use through the Neviaser portal
- Sharp distal tip
Surgical Technique

As a first step, the anatomical landmarks are identified (acromial border, lateral clavicle, spine of the scapula and coracoid process) and the portals are indicated as shown (Fig. 1).

After examination of the glenohumeral joint for further pathology, we enter the subacromial space through the lateral viewing portal. The nature and shape of the rotator cuff (RC) tear is clearly identified and evaluated for further treatment (Fig. 2). In this example, a U-shaped RC tear has been identified. The footprint is prepared with a round burr for anchor insertion (Fig. 3).
To repair the U-shaped RC tear, a two-anchor double-row technique is used. The double-loaded titanium anchors are inserted through the lateral working portal (Fig. 4, 5). First, the medial anchor is inserted adjacent to the articular edge in the middle of the tear. The lateral anchor is inserted approx. 1.5 cm laterally to the medial anchor (Fig. 4).

The sutures are now passed through the RC in three steps, using suture forceps directly penetrating the RC.

The suture forceps is inserted through the posterior portal using a HALF PIPE® and pierced through the RC. Now, the white suture of the medial anchor located posteriorly and the striped suture of the lateral anchor located posterior-laterally are retrieved and shuttled out through the tissue via the posterior portal (Fig. 6). The second striped suture of the lateral anchor is then retrieved freely through the posterior portal.
The next pair of sutures is now retrieved via the Neviaser portal (Fig. 7). Introducing the special suture forceps designed for the Neviaser portal, the RC can easily be penetrated for the required suture management. The white suture situated anteriorly and the striped suture situated posteriorly of the medial anchor are captured and passed out through the cuff (Fig. 8, 9).
The last pair of sutures (striped anterior suture medial anchor, white anterior-medial suture lateral anchor) are now retrieved through the cuff from the anterior portal (Fig. 10). The last suture of the lateral anchor is then also passed out through the anterior portal (Fig. 11).

The matching sutures are now tied, using a knot tier through the lateral working portal. The medial suture row is tied first, followed by the lateral suture row (Fig. 12).

A U-shaped RC tear repaired using a double-row technique (Fig. 13).
Instruments

28279 CC  **Suture Forceps**, distal diameter 2.7 mm, jaws open upwards, sheath diameter 3.5 mm, 34° curved downwards, working length 14 cm

28279 CD  **Suture Forceps**, distal diameter 2.7 mm, jaws open downwards, sheath diameter 3.5 mm, 52° curved downwards, working length 14 cm

28180 GO  **Dilator**, with handle and thread attachment, cannulated, inner diameter 1.6 mm, for use with Cannula 28180 GT and Nitinol Guide Wire 28140 GW

28180 GT  **Cannula**, with thread, for single use, unsterile, single-packaged, for Gasket 28180 GD, inner diameter 8.25 mm, working length 7 cm, for use with Dilator 28180 GO

28180 GDS  **Gasket Set**, for single use, non-sterile, with sealing cap, package of 5, for use with Cannula 28180 GT
28179 KP Knot Pusher, working length 18 cm

2870356 KP Knot Pusher and Suture Cutter, for cutting sutures up to size USP 2 including:
Insert and Blade Handle

2870514 TI Titanium Suture Anchor, diameter 5 mm, length 12.5 mm, with two MEGAFIBRE® sutures USP 2, pre-assembled, self-tapping, with inserter, sterile, for single use

2870614 TI Titanium Suture Anchor, diameter 6.5 mm, length 12.5 mm, with two MEGAFIBRE® sutures USP 2, pre-assembled, self-tapping, with inserter, sterile, for single use
2870514 BP  **BIOPLUG**, bioresorbable suture anchor, diameter 5.2 mm, length 14 mm, sterile, for single use, for use with Inserter 28179 TI

28179 TC  **Drill**, for preparation of the tunnel for **BIOPLUG**
2870514 BP, with laser marking for the depth of the drill hole, diameter 4.6 mm, length 18 cm

28179 TI  **Inserter**, with lateral thread guide and thread clip at the handle, working length 18 cm, for use with **BIOPLUG** 2870411 BP and 2870514 BP

28179 KS  **Bone Punch**, for use with Titanium Suture Anchors 2870514 TI, 2870614 TI and 2870309 ST

28270 H  **Mallet**, ergonomic handle, two plane faces, length 17 cm, color code: blue
**Devices**

287230 01-1 **UNIDRIVE® S III ARTHRO SCB**, with color display, touch screen operation, two motor outputs, integrated SCB module, power supply 100-120/230-240 VAC, 50/60 Hz including:
- **SCB Connecting Cable**, length 100 cm
- **Mains Cord**
- **Instruction Manual**

200168 31 **Two-Pedal Footswitch**

287210 50 **Hybrid Shaver Handpiece**, up to 7000 rpm, for use with **UNIDRIVE® S III ARTHRO SCB** and **POWERSHAVER SL SCB**
283407 01-1 ARTHROPUMP® Power,
power supply 100-240 VAC, 50/60 Hz
including:
Connecting Cable, to UNIDRIVE® S III ARTHRO SCB
and POWERSHAVER SL SCB
SCB Connecting Cable, length 100 cm
Four-Pedal Footswitch
Tubing Set Irrigation*, sterile, for single use, package of 3
Tubing Set Suction*, sterile, for single use, package of 3

mtp medical technical promotion gmbh, take-off GewerbePark 46,
78579 Neuhausen ob Eck/Germany, Tel.: +49 (0)7467 94504-0, Fax: +49 (0)7467 94504-99,
E-Mail: info@mtp-tut.com, www.mtp-tut.com

* It is recommended to check the suitability of the product for the intended procedure prior to use.

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