BIOTEK

Surgical Technique Guide

# BUTTONFIX®-F

## Acromioclavicular Joint Repair using the BUTTONFIX®-F

EU-MDR

MORE MOBILITY

# Introduction

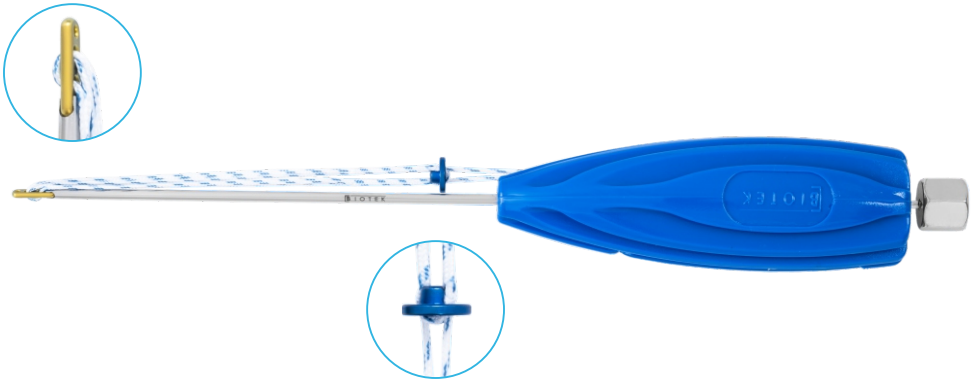
Acromioclavicular (AC) joint dislocations are common injuries, particularly in athletes and individuals engaged in high-impact or overhead activities. The AC joint, located between the acromion of the scapula and the clavicle, plays a crucial role in shoulder mobility and stability. When disrupted, it can lead to pain, dysfunction, and compromised shoulder function. AC joint dislocations are classified into different grades, based on the severity of the injury, ranging from mild sprains to complete dislocations with significant ligamentous damage.

Management of AC joint dislocations has evolved significantly over the years, with both conservative and surgical options available depending on the injury's severity and the patient's functional demands. Surgical intervention is often considered for high-grade dislocations, particularly in active individuals or those experiencing persistent symptoms despite non-surgical treatments.

This surgical technique has been developed to restore the anatomy and function of the AC joint.

# Featured Technology

- Strong Size 5 suture for a robust and reliable fixation.
- Low profile Titanium button and knotless fixation on the clavicle for reduced skin irritation.



# Surgical Technique

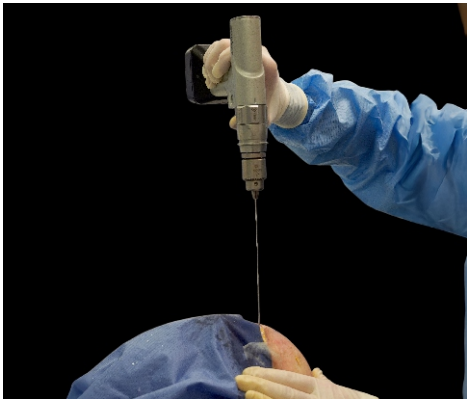
## Incision and Guide Pin Placement

### Step 1:

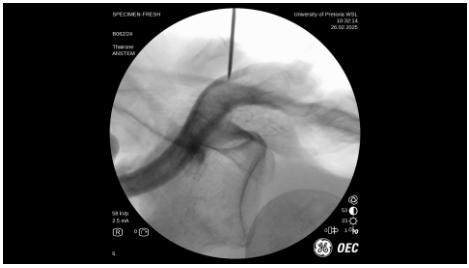
A 1.5 cm incision is made on the superior aspect of the clavicle, approximately 3.5 cm medial to the AC joint.

### Step 2:

A 1.5mm × 180mm guide pin (10494) is inserted at this location. Make sure that the guide pin is positioned in the middle of the clavicle.



### Step 3:



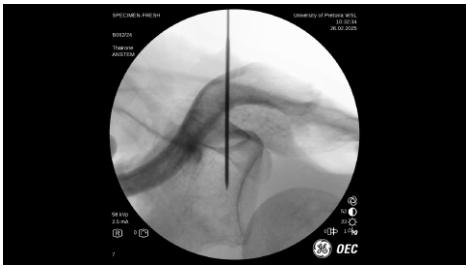

X-ray imaging is used to confirm that the guide pin is positioned superiorly and aligned with the coracoid process.

### Step 4:

Drilling is performed through both cortices of the clavicle and coracoid process.

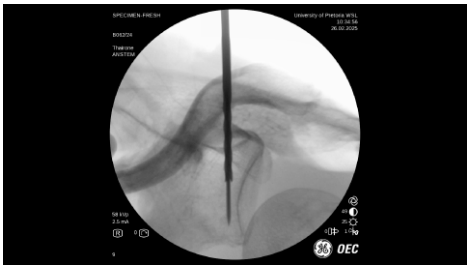
### Step 5:

X-ray imaging is used to verify that the guide pin has exited at the base of the coracoid process.




## Drilling the Bone Tunnel

### Step 6:




The guide pin is over-drilled using a 3.5mm cannulated drill bit (10369). Drilling is performed through both cortices of the clavicle and coracoid process to create the tunnel for the fixation device.

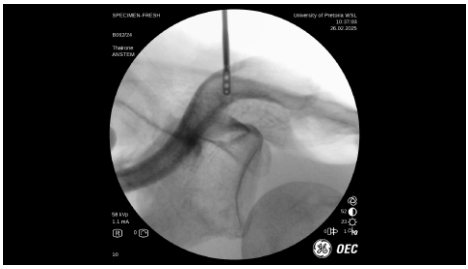
### Step 7:

Both the cannulated drill and guide pin are then removed.

## Inserting the BUTTONFIX®-F

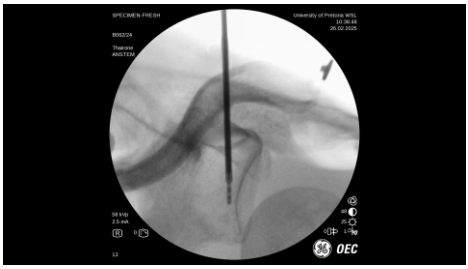
### Step 8:

The BUTTONFIX®-F (10403) is immediately inserted through the pre-drilled tunnel using the button inserter.



## Step 9:

The inserter is advanced until X-ray imaging confirms that the button has fully passed through the coracoid process.




# Deploying the Button Under the Coracoid Process

## Step 10:

Once the button is confirmed in position, the silver knob on the inserter is turned counterclockwise to release the button from the inserter tip.

## Step 11:

The silver knob is then pushed down onto the blue handle until a click is heard, fully releasing the button from the inserter. Remove the inserter

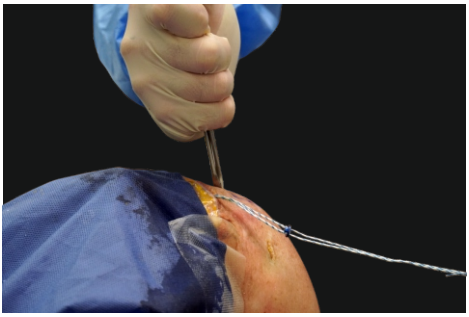
## Step 12:

At this stage, the shortening strands should not be pulled, as premature tensioning may compromise the construct. Place a tool through the loop underneath the superior button and pull superiorly to confirm button has flipped.

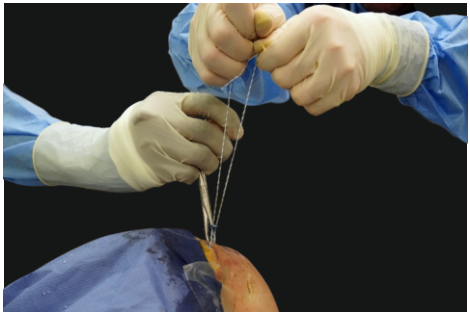
# Deploying the Button Under the Coracoid Process

## Step 13:

The clavicle is reduced back into its anatomical position using a Bristow retractor or another reduction tool.



## Step 14:



While maintaining reduction, the shortening strands are toggled one by one to gradually tension the BUTTONFIX®-F construct.

## Step 15:

Once the desired tension is achieved, the construct is secured by either:

a. Tying the strands for additional fixation, or
b. Cutting the excess strands to complete the repair.

This technique provides strong, stable fixation for acromioclavicular (AC) joint injuries, ensuring proper alignment and long-term stability of the clavicle

# Ordering information

| Cat Code | Description |
|---|---|
| 10403 | **BUTTONFIX®-F** Fixation Button with **Loop loaded with inserter** |
| 10494 | **Guidewire,** Trocar-Tip, Dia. **1.5mm,** Len. **180mm** |
| 10369 | **Drill Bit**, Cannulated Dia. **3.5mm,** Len. **180mm** |
| 10063 | **BUTTONFIX®-F** Fixation Button with Loop **For Syndesmosis Repair** |
| 10144 | **Suture Passing Inserter** for **AK-FIX** Fixation Button |

**Disclaimer:**

The information in this document is for educational purposes only. It is not intended to serve as comprehensive medical advice or a full description of the procedure. It is the responsibility of the operating surgeon to determine and utilise the appropriate products and techniques in accordance with their clinical experience and evaluation of each patient. Review and understand all product and safety information including indications for use, contraindications, effects, precautions and warnings.

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