

Ankle Syndesmosis Repair

using Synd-EZ™ Syndesmosis Repair System

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Professor Lee specialises in Sports, Regenerative, and Orthopaedic Surgery and is at the forefront of cell therapy. Being a double board-certified surgeon with five international fellowships, he has treated UK premiership footballers for sports injuries which significantly reduced their time for recovery and return to play.

MSK Doctors, London Sports Injury Clinic and London Cartilage Clinic are recognised by the International Cartilage Regeneration & Joint Preservation Society as a teaching centre of excellence.



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CASE

Patient was a 21-year-old female who sustained an injury to her ankle upon jumping out of a plane during a parachuting activity. X-ray showed high fibular fracture with syndesmosis injury, a widened gap between the distal tibiofibular joint and large soft tissue swelling. (Figures 1 and 2)

After 10 days of rest and elevation to control swelling, the patient was fixed with a long fibula locking plate and combination technique. The syndesmosis was reduced, and the complex ligament was fixed with two Synd-EZ devices. (Figure 3)



Figure 1



Figure 2

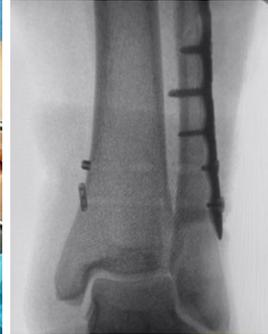


Figure 3

SURGICAL TECHNIQUE

A fracture plate was attached. A drill guide was used to drill a 1.5mm K-wire from lateral to medial through a hole in the fracture plate and all four cortices of the tibia and fibula at the preferred angle. (Figures 4 and 5)



Figure 4

A 3.5mm cannulated drill bit was used to drill over the K-wire from lateral to medial through all four cortices. The K-wire and drill bit were removed. (Figures 4 and 5)

The 2.4mm passing pin was advanced from lateral to medial through the fracture plate, all four cortices, and patient's skin on the medial side.



Figure 5

The Synd-EZ device was removed from the black tension handle by pulling the solid blue counter-traction suture.

The solid white pulling suture and white/black toggle suture were threaded through the eyelet of the passing pin. The passing pin was pulled from lateral to medial to shuttle the suture tails. The solid white pulling suture was pulled to advance the implant device from lateral to medial until the button cleared the medial cortex of the tibia. (Figures 6 and 7)



Figure 6



Figure 7

The white/black toggle suture was used to flip the button on the medial cortex of the tibia. The solid blue countertraction suture was pulled to confirm fixation of the medial button. The white/blue adjustment suture loop was placed in the central groove of the black tension handle and toggled until the top hat was seated in the fracture plate. The black tension handle and the white/blue adjustment suture was used to set final fixation and the syndesmotomic repair completed by cutting all four sutures. (Figure 8)



Figure 8

An additional Synd-EZ device was implanted. (Figure 9)



Figure 9

POST-OP

Post-op X-ray show good overlapping between the distal tibia and fibular bone and good reduction of the fracture and syndesmosis. Patient was treated with plaster for 2 weeks and changed to a weight bearing boot for 4 weeks.

Due to the fixation stability and the biomechanical advantages of the Synd-EZ device, patient could weight bear early and start rehab without the worry of a second surgery or metal work breakage compared to traditional screws techniques. (Figure 10)



Figure 10

Synd-EZ Kit *Syndesmosis Repair*

The Synd-EZ™ kit provides a solution for damage to the syndesmosis joint. This simple yet effective device is designed to stabilize the ankle and can be used with or without a fracture plate.

Features & Benefits

Versatile implant design

- Ideal for use with or without a fracture plate
- Washer included for use without a fracture plate*
- Top hat is low profile and self centering on fracture plates

Adjustable knotless construct

- Simplifies surgical procedure
- Offers confidence of flipped medial button from white/black toggle suture

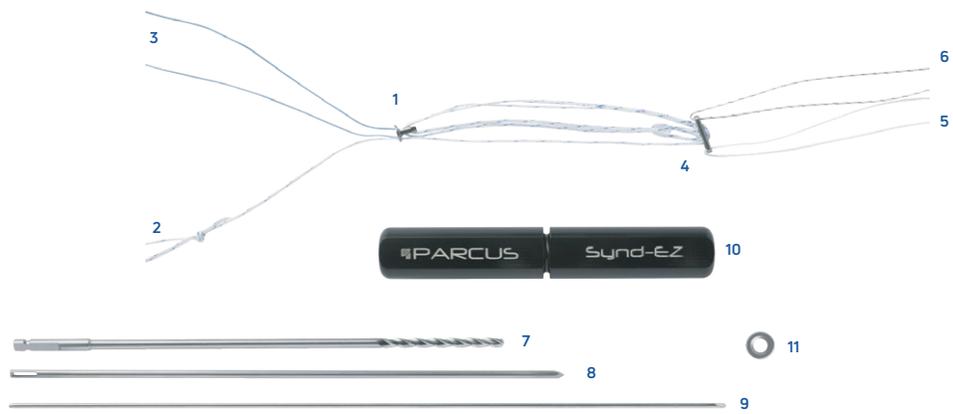
Counter traction suture & tension handle

- Integrated for predictably smooth tension of construct

Synd-EZ Kits			
Part#	Diameter (mm)	Length of Button (mm)	Description
11223	3.2 mm	12 mm	Synd-EZ Titanium Kit (Ti)
11224	3.2 mm	12 mm	Synd-EZ Stainless Steel Kit (SS)

Synd-EZ Instrumentation (for use with a fracture plate)			
Part#	Description	Sterile/Non-sterile	Single-use/Reusable
11272	Synd-EZ Drill Guide	Non-sterile	Reusable

Synd-EZ Kit Components	
1	Top hat
2	White/blue adjustment suture
3	Solid blue counter-traction suture
4	Button
5	Solid white passing suture
6	White/black toggle suture
7	3.5mm cannulated drill bit
8	2.4mm passing pin
9	1.5mm K-wire
10	Black tension handle
11	Washer*



* Washer is only available in the Synd-EZ Titanium Kit 11223.



Parcus has joined **Anika**

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