

# Introducing the ENDOBUTTON<sup>®</sup> Direct Fixation Device, a new addition to the ENDOBUTTON<sup>®</sup> family of fixation devices.

The unique design of the ENDOBUTTON Direct Device allows for direct fixation of the graft onto the button, thereby maximizing the amount of graft in the femoral tunnel. This revolutionary technology provides an ideal solution for accommodating shorter femoral tunnels which often result from anatomic techniques including single and double bundle ACL reconstructions. As an added benefit, this versatile device continues to utilize the familiar flipping technique invented by Smith & Nephew and is also employed by the entire ENDOBUTTON family of fixation devices. ENDOBUTTON Direct Device is available in five sizes from 5 mm to 9 mm to accommodate a broad range of graft and tunnel sizes.

## Technique

The ENDOBUTTON<sup>®</sup> Direct Device utilizes one-step drilling (all the way through the cortex on the femoral side), minimizing the number of steps required.

- 1 Measure the graft.
- 2 Drill femoral and tibial tunnels ensuring that you drill all the way through the cortex on the femoral side.

*TIP: Drilling the femoral tunnels through the anteromedial portal will create shorter more anatomic tunnels.*

- 3 Measure the total length of the tunnel and ensure that you have enough graft to fill both the femoral and tibial sides.

*TIP: If graft is not long enough, use either the ENDOBUTTON CL ULTRA device with XTENDOBUTTON on the femoral side or a fixation post on the tibial side.*

- 4 Choose the ENDOBUTTON Direct Device size that corresponds to the graft size. (Accommodates sizes 5 mm through 9 mm.)



## Ordering Information

72201206	5 mm ENDOBUTTON Direct Device
72201207	6 mm ENDOBUTTON Direct Device
72201208	7 mm ENDOBUTTON Direct Device
72201209	8 mm ENDOBUTTON Direct Device
72201210	9 mm ENDOBUTTON Direct Device
72201212	ENDOBUTTON Direct Holder
72201600	ENDOBUTTON Direct Scale
015185	ENDOBUTTON Depth Probe



**5** Pull one end of the graft through the closed end of the ENDOBUTTON® Direct Device.

*TIP: Ensure that the whip stitch is tight to avoid adding bulk to the graft. This will make it easier to pull through the device. For single bundle techniques, utilizing both the semi-tendinosus and gracilis grafts, passing one graft at a time through the closed end of the button will simplify loading the button.*

**6** Wrap the graft around the center bar of the ENDOBUTTON® Direct Device and through the open end.

**7** Ensure that the ends of your grafts are even.



**8** Attach a #5 braided polyester or a #2 ULTRABRAID co-braid lead suture to the ENDOBUTTON® Direct Device in the hole on the closed end of the device.

*TIP: Using heat tipped sutures and different colors for leading and flipping will make it easier to load the sutures and pass the graft.*

**9** Attach a #2 braided polyester flipping suture to the ENDOBUTTON Direct Device through the two holes at the open end of the device.

*TIP: To ensure that the button is oriented completely vertical in the tunnel, you may want to leave a small loop in the suture between the two holes.*



**10** Measure the femoral tunnel length.

**11** Mark the graft at the length of the femoral tunnel.

**12** Mark the graft at the flipping distance required for the size of the device that you are using. (See table below for distance.)

**13** Pass the graft using the standard ENDOBUTTON technique.

*TIP: To prevent pulling the device into the soft tissue, ENSURE that you apply sufficient counter tension to the graft on the tibial side.*

ENDOBUTTON® Direct Device Size	Flipping Distance Required
5 mm	8 mm
6 mm	9 mm
7 mm	10 mm
8 mm	11 mm
9 mm	11 mm

**Endoscopy**  
Smith & Nephew, Inc.  
150 Minuteman Road  
Andover, MA 01810


**[www.smith-nephew.com](http://www.smith-nephew.com)**

T +1 978 749 1000 US

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Direct fixation for dependable  
tunnel healing

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Fixation Device