



Block

ADJUSTABLE BUTTON

Surgical Technique

Joint

Spine

Sports Med

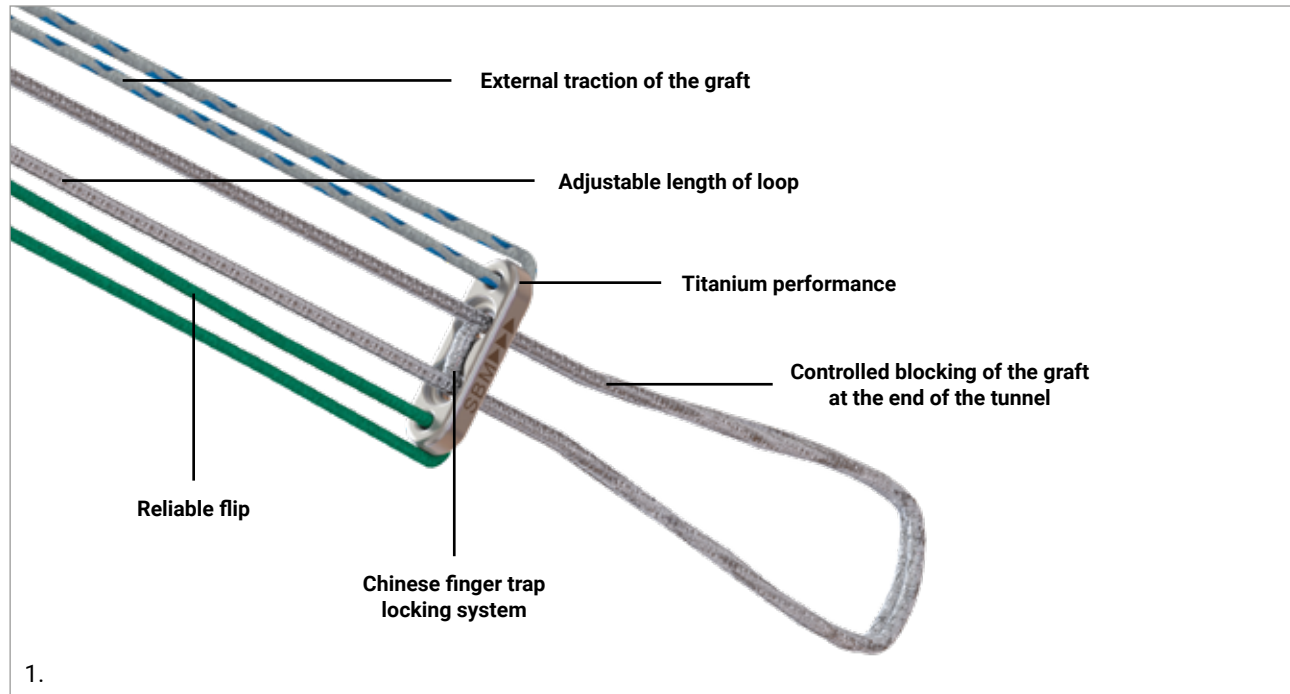
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1. TECHNICAL FEATURES

1.1 CORTICAL FIXATION SYSTEM FOR ACL RECONSTRUCTION



2. RECOMMENDED USE

2.1 INDICATIONS

The MBlock device is designed to be used as cortical fixation for ACL reconstruction.

2.2 CONTRAINDICATIONS

- Any known allergy or hypersensitivity to implant materials. When sensitivity to a material is suspected, appropriate tests must be done to check that no sensitivity is detected prior to implantation.
- Insufficient bone quantity or quality. Note: The efficacy of the MBlock implant is directly linked to the quality of the bone in which the implant is inserted.
- Insufficient blood supply and recent infections that could delay healing.
- Active infection.
- Conditions that limit the ability or willingness of the patient to slow down his/her activities or follow recommendations during the healing period.

- This medical device could be contraindicated for patients with insufficient bone density. Physicians must carefully evaluate bone quality before performing orthopedic surgery on patients who have not yet reached full skeletal maturity. The implant and fixation devices must not overlap, hinder or damage the growth plates.
- Do not use for surgeries other than those indicated.

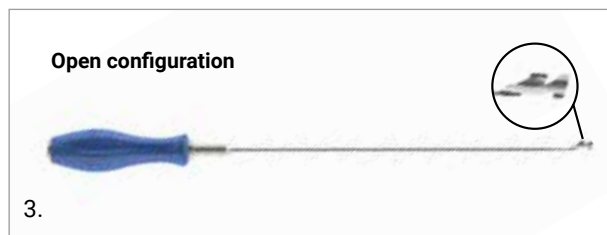
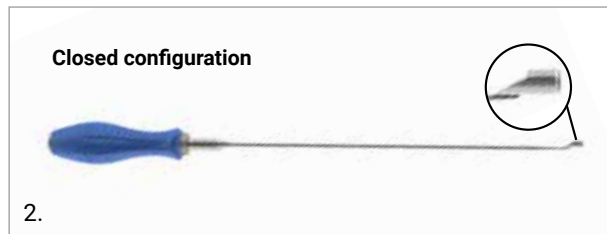
2.3 SURGICAL APPROACH

The following semitendinosus technique presents the steps of the In-Out technique for the ACL reconstruction with MBlock. MBlock Adjustable Button can however also be used with other ligaments and tendons. It is the responsibility of the surgeon to verify the instrumentation compatibility. Other surgical approaches are possible and remain the choice of the surgeon.

3. SOFT TISSUE ACL RECONSTRUCTION

3.1 HARVEST THE GRAFT

- Harvest with a Medacta Closed (Ref. 05.05.10.0023) or Open (Ref. 05.05.10.0024) Tendon Stripper the semitendinosus tendon alone or with the gracilis tendon.
- Prepare the graft and evaluate the diameter.



3.2 TIBIAL TUNNEL

- To position the tibial tunnel, use the Medacta Tibial Guide (Ref. 05.05.10.0073 and Ref. 05.05.10.0074).
- Adjust the angle of the guide depending on the graft length.
- Drill the tibial tunnel using a drill that matches the graft diameter.



3.3 FEMORAL TUNNEL

- Place the knee in flexion and use either a Medacta Anteromedial Femoral Aimer (Ref. 05.05.10.0085 or Ref. 05.05.10.0086) or a Medacta Transtibial Femoral Aimer (Ref. 05.05.10.0057 or Ref. 05.05.10.0058) to position the femoral tunnel.
- Then use two diameters of reamers to produce the femoral tunnel: one for passing the implant through the tunnel and one corresponding to the graft diameter (minimum 15 mm).

3.4 IMPLANT-GRAFT FIXATION

Select either a MBlock or MBlock XL implant depending on the diameter of the cortical tunnel: MBlock for a diameter of 4.5 mm and MBlock XL for a diameter of 5 to 10 mm. Remove the implant from its protective mount sheet by simultaneously pulling on the two white loops. Insert the graft through the two implant loops, then fold back and suture the graft.

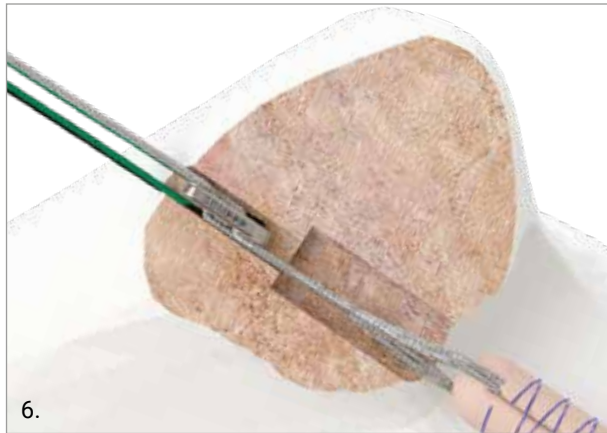


NOTE: For safety reasons the default loop length has been set at 40 mm. If you wish to increase the loop length do pull carefully and alternately on both sides of the loop.

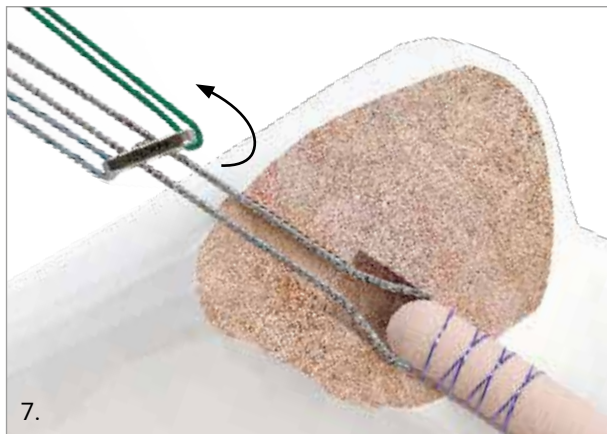
- If the loop length is < 40 mm, the button may not be able to exit the cortical tunnel or you may not be able to flip it and then the graft would need to be removed again and the loop length would need to be readjusted.
- If the loop length is > 40 mm, there is a risk to pull the button too far out on the cortical side and that the button is flipped in soft tissues. Consequently the button would not sit properly on the cortical bone. This could result in a button migration and lead to laxity and consequently in a surgical failure.

3.5 IMPLANT POSITIONING

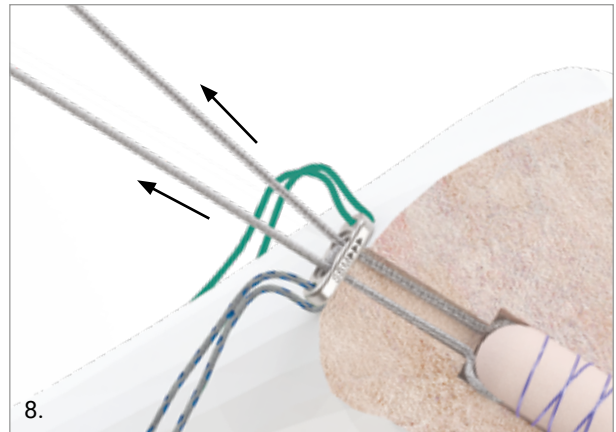
Use a Medacta Passing Wire $\varnothing 2.4$ mm L380 (Ref. 05.05.10.0030) to introduce a shuttle relay suture through the femoral tunnel and then retrieve the suture through the tibia with a suture manipulator. Pass all the implant threads through the shuttle relay suture. Using the relay suture, pull all the implant threads through the tibia in the femur. Tension all the threads by using the shuttle relay suture and use the white/ blue thread to pull the button through the external cortical surface.



Flip the button by pulling the green thread. Alternately pull on the green and white/blue threads to check if the button has been successfully flipped and is well positioned on the external cortex.



Pull alternately on the white threads until the implant is locked into place. Pull on the graft to check for stability.

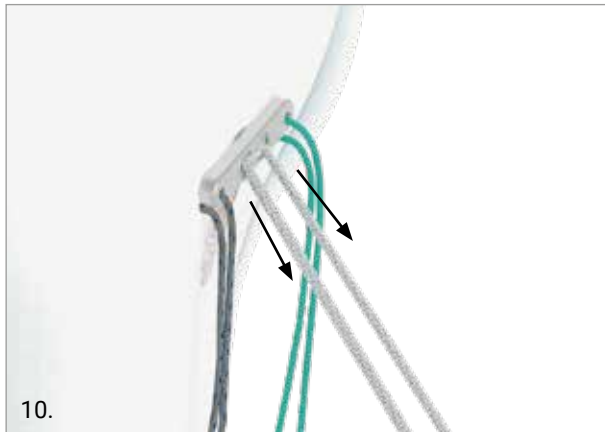


Cut the white threads with a surgical knife or suture cutter under the skin. Remove the green and blue/white threads by pulling on either end.



3.6 TIBIAL FIXATION

Position the knee at 10° flexion and tension the graft by reducing the anterior tibial translation. Apply tension by alternately pulling on the white threads of the MBlock/ MBlock XL implant until the implant is locked into place. Cycle the knee (flexion/extension), and tension the system once more.






Make sure the knee can be flexed, then remove the green and white/blue threads. Cut the ends of the white sutures with a surgical knife or suture cutter at a distance of at least 7mm from the button.




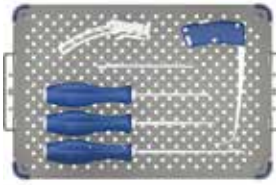
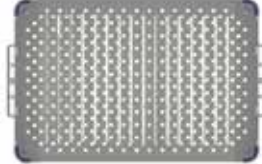




Alternatively, with the knee fully extended or in slight flexion, insert a Medacta MectaScrew Interference Screw to conclude tibial fixation. Make sure the knee can be flexed, then use the cutting pliers to cut excess sutures.



4. REFERENCES AND SIZES

REF. NO.	DESCRIPTION	PICTURE
05.05.0089	MBlock Adjustable Loop For cortical tunnels with \varnothing 4.5 mm	
05.05.0090	MBlock Adjustable Loop XL For cortical tunnels with \varnothing from 5 to 10 mm	
05.05.10.0133	Ligament reconstruction wires kit	

REF. NO.	DESCRIPTION	PICTURE
05.05S.001	Knee General Set	
05.05S.004	Knee Preparation Table Set	
05.05S.003	Single Bundle ACL (Transtibial/Cannulated)	
05.05S.005	Single Bundle ACL (Anteromedial/Cannulated)	
05.05S.011	Single Bundle ACL (Anteromedial/Cannulated) w/o dilators	
05.05S.013	Single Bundle ACL (Transtibial/Cannulated) w/o dilators	

REF. NO.	DESCRIPTION	PICTURE
05.05S.018	Cannulated Tibial Reamer Set	
05.05S.009	PCL Instrument Set	
05.05S.008	Cannulated Headed Reamer Set	
05.05.10.0118	Cannulated Screwdriver Shaft T20	
05.05.10.0120	Cannulated Screwdriver Shaft T25	
05.05.10.0122	Cannulated Screwdriver Shaft T40	
05.05.10.0124	Quick Connect Ratchet Handle cannulated	
05.05.10.0150	Ø4.5 mm cortical reamer pin	
05.05.10.0136	Femoral Aimer AM Ø7-8 for cortical reamer pin	
05.05.10.0137	Femoral Aimer AM Ø9-10 for cortical reamer pin	

Part numbers subject to change.

NOTE FOR STERILIZATION

If not specified, the instruments are not sterile and must be cleaned before use and sterilised in an autoclave in accordance with the regulations of the country, US directives where applicable and following the instructions for use of the autoclave manufacturer. For detailed instructions please refer to the document "Recommendations for cleaning decontamination and sterilisation of Medacta International orthopaedic devices" available at www.medacta.com.



REDEFINING BETTER
IN ORTHOPAEDICS
AND SPINE SURGERY

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Surgical Technique

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