

TOPAZ® MicroDebrider Technique Guide For Treatment of the Plantar Fascia



TOPAZ Benefits

- Successful in over 90% of cases
- Preserves structural integrity of Plantar Fascia



Materials Needed

- ArthroCare system controller with foot control or hand switch control
- ArthroCare patient cable (note: see Instructions for Use for sterilization details)
- TOPAZ MicroDebrider
- ArthroCare Timer (provides 0.5 second burst of activation)
- Saline or Ringer's lactate solution
- Sterile IV tubing

EPF Procedure

- 1 Identify and mark symptomatic area preoperatively while patient is still alert.
- 2 Position patient. Administer local or general anesthesia as appropriate.
- 3 Utilize tourniquet if desired.
- 4 Connect TOPAZ to the sterile saline or Ringer's lactate solution, flush saline line to remove all air bubbles from the line.
- 5 Adjust saline flow to 2-3 drops per second.
- 6 Adjust power setting on controller to set point 4.
- 7 Create an 8mm stab incision on the medial border of the foot in line with the plantar tissue band. Using blunt dissection through the incision, saving the fat pad, create a track for the cannula and obturator. Ensure that the track is immediately plantar to the fascia (*Fig A*).
- 8 Insert the cannula and obturator together until the instrument is visibly tenting the skin on the lateral side of the foot (*Fig B*).
- 9 Create an exit wound and pass the instrument through.
- 10 Cleaning the lumen of the cannula can be done at this time using cotton tipped swabs for better visualization of the fascia after insertion.
- 11 Insert the scope (4.0mm) medial to lateral through the cannula and visualize the plantar fascia through the slot in the cannula (*Fig C*).
- 12 Insert the TOPAZ EPF wand from the lateral to medial noticing the notch tipped end of the cannula. This enables the user to drop their hand so the tip of the Wand will have better access to the fascia.
- 13 Place the tip of the Wand on the surface of the fascia, staying perpendicular to the fascia (*Fig D*).
- 14 Activate for 0.5 seconds with light pressure (the ArthroCare Timer delivers a pre-determined 0.5 second activation).
- 15 Working through the slot in the cannula, create perforations in the fascia at 5mm intervals. Vary the pressure of the Wand on the fascia to create perforations of 1mm, 3mm, and 5mm depths. The cannula can be rotated to create a second and third row of perforations, creating a three dimensional grid pattern of 12 -15 perforations.
- 16 Once the area is treated, irrigate wound with normal saline. Remove Wand and cannula. Close stab incision with appropriate wound closures (*Fig E*).
- 17 Administer a local anesthetic and standard sterile dressings.

Photo courtesy of: Dr. Zang, D. P. M.
Podiatric Physicians of Arizona, PC



Figure A



Figure B



Figure C



Figure D



Figure E

Patient Selection Guidelines

- Tendons with partial tears may be at an increased risk of rupture.
- Patients with acute trauma, neurogenic disease, ligamentous disruption, bone and joint abnormalities are not considered appropriate candidates for TOPAZ and should not be treated.

Setup

- 1 Connect power cord to controller and outlet
- 2 Connect timer to controller
- 3 Connect foot control to timer
- 4 Connect patient cable to controller, aligning respective dots
- 5 Connect patient cable to device, aligning respective dots

OPEN Procedure

- 1 Identify and mark symptomatic area preoperatively while patient is still alert.
- 2 Position patient. Administer local or general anesthesia as appropriate.
- 3 Utilize tourniquet if desired.
- 4 Create a small incision, approximately 1 1/4", over the marked area.
- 5 Connect the line to the sterile saline or Ringer's lactate solution, flush saline line to remove all air bubbles from the line.
- 6 Adjust saline flow to 2-3 drops per second.
- 7 Adjust power setting on controller to set point 4.
- 8 Place the tip of the Wand on the surface of the fascia, staying perpendicular to the fascia.
- 9 Activate for 0.5 seconds with light pressure (the ArthroCare Timer delivers a pre-determined 0.5 second activation).

- 10 Create perforations in the fascia at 5mm intervals creating a three dimensional grid pattern of 12 -15 perforations. Vary the pressure on the wand to create perforations of 1mm, 3mm, and 5mm depths.
- 11 Once the area is treated, irrigate wound with normal saline. Close with appropriate wound closures.
- 12 Administer a local anesthetic and standard sterile dressings.

Photo courtesy of:
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Depth of Perforation



Case Example of Figure E



Figure A



Figure B

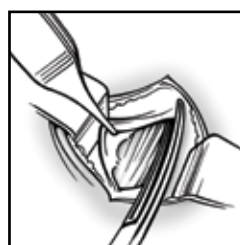


Figure C

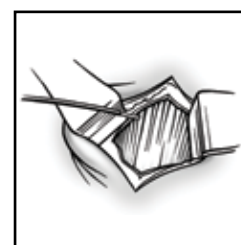


Figure D



Figure E

Post Operative Care

- ❶ First 3 weeks–use crutches
 - Immobilize with splint
- ❷ Week 4–week 8
 - Passive and active range of motion exercises
 - Night splint–Cam walker as appropriate
- ❸ 2-3 months
 - No sports or heavy lifting
 - Routine at home or work is OK at the discretion of the surgeon



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