Lapiplasty®
3-Plane Correction at the CORA

Instrumented Reproducibility.
**Rapid** Weight-Bearing.¹
Low Recurrence.¹

TREACE® Medical Concepts, Inc.
The Leader in Hallux Valgus Surgery®
What is the Lapiplasty® Procedure?
An instrumented, reproducible approach to 3-plane correction with rapid return to weight-bearing

Correct.
Make your correction **before** you cut
The Lapiplasty® Positioner is engineered to quickly and reproducibly correct the alignment in all three planes, establishing and holding true anatomic alignment of the metatarsal and sesamoids.¹

Cut.
Perform precision cuts with confidence
The Lapiplasty® Cut Guide delivers precise cuts with the metatarsal held in the corrected position, ensuring optimal cut trajectory while virtually eliminating the risk of metatarsal shortening.

Compress.
Achieve controlled compression of joint surfaces
The Lapiplasty® Compressor delivers over 150N of controlled compression² to the precision-cut joint surfaces, while maintaining the 3-plane correction.

Fixate.
Apply multiplanar fixation for robust stability
Low-profile Biplanar™ Plating provides biomechanically-tested³ multiplanar stability for rapid return to weight-bearing.⁴

²Data on file.
⁴Data on file.
How does the Lapiplasty® Procedure work?

Key surgical steps:

1. **Joint Release**
   Run sagittal saw congruously down the 1st TMT joint to mobilize and plane the joint surfaces.

2. **Anatomic Correction**
   Apply the Lapiplasty® Positioner, simultaneously securing the IM angle, frontal-plane rotation, and sagittal alignment in corrected position.

3. **Precision Cuts**
   Secure the Lapiplasty® Cut Guide and make precise joint cuts with the triplanar correction held in place.

4. **Joint Distraction**
   Apply the Lapiplasty® Compressor over the Cut Guide Pins to distract the joint for removal of bone slices and fenestration of the joint surfaces.

5. **Joint Compression**
   Using the Lapiplasty® Compressor, bring the precision-cut joint surfaces together for controlled apposition and compression of the arthrodesis site.

6. **Multiplanar Fixation**
   Apply low-profile Biplanar® Plates dorsally and medially, providing multiplanar fixation for rapid weight-bearing.
Lapiplasty® System
Anatomic Biplanar™ Implants

Lapiplasty® System 1
Sterile-packed Biplanar™ Plating kit for versatility to fit each patient’s anatomy, while delivering superior multiplanar strength.

- Low-profile, anatomic shape contoured to fit the 1st TMT joint
- 2.7mm standard-sized locking screws eliminates intra-operative measuring
- Biplanar™ configuration for multiplanar stability

| SK12 | Plate Width | 3.6mm | Locking Screws | 2.7x12mm (5) | 2.7x14mm (4) |

Lapiplasty® System 2
An evolution of Biplanar™ Plating with increased cross-sectional width for additional construct strength.

- Anatomic contour and low-profile thickness maintained
- 2.7mm star-drive screws for excellent screw driver engagement; compatible across systems
- Increased cross-sectional width for improved stability

| SK14 | Plate Width | 3.9mm | Locking Screws | 2.7x12mm (5) | 2.7x14mm (4) |

Lapiplasty® System 3R
Versatile Biplanar™ Plating option with widest cross-section, 3.0mm screws, and increased span to address revision cases and challenging anatomy.

- Low-profile thickness maintained
- Increased center span (+5mm) to accommodate grafts and challenging anatomy
- Most cross-sectional width for robust stabilization

| SK23 | Plate Width | 4.3mm | Locking Screws | 3.0x12mm (4) | 3.0x16mm (8) |

Plantar Python® 2 Plate
Sterile-packed, pre-contoured, easy-to-apply tensile-side fixation.

| SD14/15 (L/R) |

Lapiplasty® Long Locking Screws

- 2.7mm Long Screw Pack SD16
  2.7x16mm (2) + 2.7x18mm (2)

- 3.0mm Long Screw Pack SD17
  3.0x18mm (2) + 3.0x20mm (2)
One System for All Your Hallux Valgus Needs
Sterile-packed kits for operational efficiency

Lapiplasty® Accessory Kits

Headless Screws
Headless titanium compression screws for Akin osteotomies, tarsal-metatarsal fusions, & other applications

- **SK20**
  - 2.5x20mm
  - 2.5x28mm

- **SK26**
  - 4.0x36mm
  - 4.0x40mm

Headed Interfrag Screws
Low-profile headed, titanium cannulated compression screws for tarsal-metatarsal fusions & other applications

- **SK18**
  - 3.0x36mm
  - 3.0x40mm

- **SK25**
  - 4.0x36mm
  - 4.0x40mm

Transverse Screws
Low-profile headed, titanium cannulated compression screws for tarsal fusion & other applications

- **SK19**
  - 3.5x23mm
  - 3.5x26mm

Snap-Off Screws
Titanium snap-off screws for Weil osteotomies & other applications

- **SK21**
  - 2.0x12mm
  - 2.0x14mm

Lesser TMT Fixation Pack
Single low-profile S1 plate w/ locking screws for lesser TMT fusions (metatarsus adductus) & other applications

- **SK28**
  - S1 Plate: 2.7x14mm (2) | 2.7x18mm (3)

FastGrafter® Autograft Harvesting System (7mm)
Sterile-packed, single-use device for quick and efficient harvest of cancellous autogenous bone from the calcaneus, distal tibia, and other harvest sites through a minimal incision approach.

- **SK27**

See Instructions for Use LBL1405-9056* or LBL1405-9110**
Biomechanically Proven for Rapid Weight-Bearing

Biomechanical test specimens were constructed using Sawbones® surrogate bone models (Pacific Research Laboratories Inc, Vashon, WA) and tested in cantilever bending to simulate functional 1st TMT joint loading. The testing included both static ultimate failure and cyclic load to failure. Three different studies were performed under this test protocol, which are detailed below.

### Gen1 vs. Conventional Plating

- **Biplanar™ Plating Gen 1 vs. Anatomic Dorsal Locking Plate w/ 4.0 Interfrag Screw**
- **130% Increase in Ultimate Failure Load**
- **30% Increase in Cycles to Failure**


### S1 vs. Gen1

- **S1 Biplanar™ Plating vs Biplanar™ Plating Gen 1**
- **50% Increase in Ultimate Failure Load**
- **100% Increase in Cycles to Failure**

*TMC Data on file.*

### S2 vs. Gen1

- **S2 Biplanar™ Plating vs Biplanar™ Plating Gen 1**
- **78% Increase in Ultimate Failure Load**
- **179% Increase in Cycles to Failure**

*TMC Data on file (M171A).*
The Evidence-Based Solution for 3-Plane Correction

Treace Medical Concepts is dedicated to advancing the understanding of the Lapiplasty® Procedure and its benefits to patients, surgeons, and the healthcare system through research studies and publications in the peer-reviewed literature.

Multicenter Early Radiographic Outcomes of Triplanar Tarsometatarsal Arthrodesis With Early Weightbearing

Multicenter, retrospective study of 57 hallux valgus (62 feet) patients treated with the Lapiplasty® Procedure and early return to weight-bearing at mean follow-up of 13.5 months.

<table>
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<th>Pre-Op</th>
<th>6 Week</th>
<th>4 Month</th>
<th>12 Month/Final</th>
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<tr>
<td>IMA</td>
<td>13.6° ± 2.7°</td>
<td>6.1° ± 2.1°</td>
<td>6.1° ± 2.3°</td>
<td>6.6° ± 1.9°</td>
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<td>HVA</td>
<td>24.2° ± 9.3°</td>
<td>11.6° ± 5.1°</td>
<td>10.2° ± 5.9°</td>
<td>9.7° ± 5.1°</td>
<td>&lt; 0.001</td>
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<tr>
<td>TSP</td>
<td>5.0 ± 1.3</td>
<td>1.6 ± 0.7</td>
<td>1.8 ± 0.9</td>
<td>1.9 ± 0.9</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>


Progression of Healing on Serial Radiographs Following First Ray Arthrodesis in the Foot Using a Biplanar Plating Technique Without Compression

Multicenter, retrospective study of bone healing with accelerated weightbearing protocol in 195 patients undergoing TMT or MTP fusions with Lapiplasty® biplanar plating at mean follow up of 9.5 months.

Highlights of the study:
- Patients began weight-bearing at 5 days post-op in a walking boot
- 97.4% of the patients demonstrated a successful bony fusion and 98.9% of the patients maintained a stable joint position
- 3.1% overall implant removal rate for irritation and hardware failure


Lapiplasty® Publications
The Beauty of Reproducibility