Lapiplasty®

3D Bunion Correction





Contents

Lapiplasty® System

- What is the Lapiplasty® Procedure?	03
- Lapiplasty® Case Examples	04
- The Evidence-Based Solution	05
- Biomechanically Tested and Validated	06
– Lapiplasty® Anatomic Biplanar™ Implants	07
- SpeedPlate™ Rapid Compression Implants	8
 Micro-Lapiplasty[™] Minimally Invasive System 	
Lapiplasty® Accessory Kits	
	09
Lapiplasty® Accessory Kits	09

What is the Lapiplasty® Procedure?

An instrumented, reproducible¹ approach to 3-plane correction with rapid return to weight-bearing (in a walking boot)^{1,3} and low recurrence (0.9% and 3.2% in studies at 17 and 13 months follow-up, respectively)^{2,1}

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.²





Cut.

Perform precision cuts with confidence

The **Lapiplasty® Cut Guide** is designed to deliver precise cuts with the metatarsal held in the corrected position, helping to facilitate optimal cut trajectory with only 2.4 and 3.1mm of average metatarsal shortening.⁴





Compress.

Achieve controlled compression of joint surfaces

The **Lapiplasty® Compressor** is designed to deliver controlled compression⁵ 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-tested^{5,6} multiplanar stability for rapid return to weight-bearing (in a walking boot). 1,3





2

 $^{1. \} Ray \ J, et \ al. \ Foot \ Ankle \ Int. \ 2019; 40(8): 955-960. \ | \ 2. \ Dayton \ P, et \ al. \ J \ Foot \ Ankle \ Surg. \ 2020; 59(2): 291-297.$

^{3.} Dayton P, et al. J Foot Ankle Surg. 2019;58(3):427-433. | 4. Hatch D, et al. Foot & Ankle Ortho. 2020;5(4):1-8.

^{5.} Data on file. | 6. Dayton P, et al. J Foot Ankle Surg. 2016;55(3):567-571.

The Reproducible Solution for Your Bunion Patients

Patented correct before you cut approach for reproducible results'

















Growing Awareness Across the US

500K+ 2.5K+

Monthly web visits to Lapiplasty.com²

Surgeons performing the Lapiplasty® Procedure2

Patients treated with the Lapiplasty® Procedure2

1. Ray J. et al. Foot Ankle Int. 2019:40(8):955-960. I 2. Data on file

The Evidence-Based Solution for 3-Plane Correction

Backed by 21 publications and an ongoing 5-year multicenter prospective study, Treace Medical is recognized as the leader in advancing the scientific study of Hallux Valgus.¹

3D Bunion Correction most commonly used by US Surgeons

AOFAS Member Survey Aug 2023

Clinical publications supporting the Lapiplasty® Procedure

	Lapiplasty® offers:
97 and 99% successful maintenance of 3D correction (as demonstrated in 13 &17 months follow-up, respectively) ^{3,2}	•
<2 weeks to return to weight-bearing in a boot ^{3,6}	•
10.4mm average reduction in osseous foot width ⁴	•
2.4 and 3.1mm average shortening of first ray ⁵ (in lateral and AP radio	ographs, respectively)
2-3% non-union rate (13.5 & 9.5 month follow-up) ^{3,6}	•
3% hardware removal rate (in a 13 month study) ⁶	•
0.9% and 3.2% recurrence rate (as demonstrated in studies at 17 & 13 mg	onths follow-up, respectively) ^{2,3}
30% increase in cycles to failure with Biplanar Plating ⁷ (compared to dorsomedial Lapidus plate + compression screw)	•
>80% reduction in pain levels per VAS and MOxFQ scoring system (interim analysis from ALIGN3D™ study of 40 patients at 24 months)¹	ms 📀

One- and Two-Year Analysis of a Five-Year Prospective Multicenter Study Assessing Radiographic and Patient-Reported Outcomes Following Triplanar First Tarsometatarsal Arthrodesis With Early Weightbearing for Symptomatic Hallux Valgus

Liu GT, Chhabra A, Dayton MJ, Dayton P, Duke W, Farber D, Hatch D, Kile D, Koay J, McAleer JP, Raissi A, Raspovic KM, Santrock RD, Taylor RP, VanPelt M, Wukich D. J Foot Ankle Surg. 2022; 61:1308-1316. https://doi.org/10.1053/j.jfas.2022.04.008.

Summary: Interim analysis from the Lapiplasty® ALIGN3D" multicenter, prospective clinical study of 117 patients with at least 12 months of follow-up, of whom 40 patients have at least 24 months of follow-up (out of 173 total study patients).

- Early return to weight bearing in a walking boot within 7.8 days on average (n=117).
- · Significant improvement in radiographic measures of 3-dimensional bunion correction from pre-surgery to 6 weeks and maintained at 12 months (n=108) and 24 months (n=38) post-surgery; with 1 recurrence reported at 12 months post-surgery (0.9% recurrence rate).
- Return to work within 4 weeks (25.2 days) and to full, unrestricted activity within 4 months post-surgery on average (n=117).
- Significant improvement in patient-reported pain reduction on VAS (n=112) and quality of life measurements on M0xFQ (n=113) and PROMIS (n=108) scores at 12 months and at 24 months (n=40).

^{1.} Liu GT, et al. J Foot Ankle Surg. 2022. 61:1308-1316. | 2. Dayton P, et al. J Foot Ankle Surg. 2020;59(2):291-297. | 3. Ray J, et al. Foot Ankle Int. 2019;40(8):955-960. 4. Vaida J, et al. Foot & Ankle Ortho. 2020;5(3):1-5. | 5. Hatch D, et al. Foot & Ankle Ortho. 2020;5(4):1-8. | 6. Dayton P, et al. J Foot Ankle Surg. 2019;58(3):427-433. 7. Dayton P, et al. J Foot Ankle Surg. 2016;55(3):567-571.

Biomechanically Tested and Validated

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.

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 Failures^{1,2}

S1 Biplanar™ Plating



VS



50%

Increase in **Ultimate Failure** Load²

100%+

Increase in Cycles to Failures²

S2 Biplanar™ Plating



VS



78%

Increase in **Ultimate Failure** Load²

179%

Increase in Cycles to Failures²

Lapiplasty® System

Anatomic Biplanar™ Implants

Biplanar configuration for multiplanar stability and low-profile, anatomic shape contoured to fit the 1st TMT joint.

Lapiplasty® System 1



Sterile-packed Biplanar™ Plating kit for versatility to fit each patient's anatomy, while delivering multiplanar strength.1

- 2.7mm standard-sized locking screws eliminate intra-operative measuring
- 1.6mm thickness, with anatomic contour for low-profile fit

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.

- · 10% increased cross-sectional width allows for designed for (compared to Lapiplasty® System 1)
- Low-profile thickness and anatomic contour maintained

SK14

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



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

- Increased center span (+5mm) to accommodate grafts and challenging anatomy
- · Most cross-sectional width for robust stabilization while maintaining the low-profile thickness

SK23

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

Lapiplasty® System 4A



Next-generation Multiplanar Plating option with an advanced, three-dimensional proximal contour designed to conform to the anatomy of the tarsometatarsal joint.

- · Anatomic, 3D contour accommodates the intercuneiform joint and tibialis anterior insertion
- · Centerline helps align with tarsometatarsal joint

SK39

Plate Width | 3.9mm | Locking Screws | Not Included

See Instructions for Use LBL 1405-9005. 1. TMC, Data on File (ER 1405-0289)

1. Dayton P, et al. J Foot Ankle Surg. 2016;55(3):567-571. | 2. TMC, Data on File (ER 1405-2031)

plasty® Accessory Kits

SpeedPlate

Rapid Compression Implants

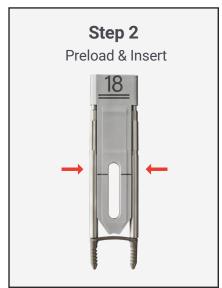
- Dynamic Compression offers continuous compression across the fusion site
- Titanium Alloy implant does not contain nickel¹
- Anatomic Contour implant shape accomodates intercuneiform joint and tibialis anterior insertion

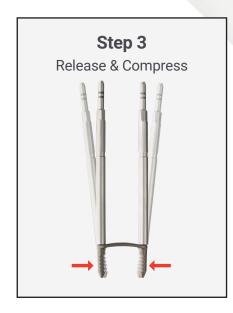
SK50 28x13x11mm SpeedPlate[™] Anatomic Quad Rapid Compression Implant

SK51 18x14mm SpeedPlate[™] Rapid Compression Implant

SK52 18x17mm SpeedPlate[™] Rapid Compression Implant







Micro-Lapiplasty^{**}

Minimally Invasive System

- Minimally Invasive System The power of Lapiplasty® now through a 2cm incision
- Familiar Technique and Philosophy Key steps and instruments based on the Lapiplasty® Procedure
- New Instruments Designed for Procedural Efficiency Specialized tools for TMT joint prep, bone removal and retraction provide a streamlined procedure



One System for All Your Hallux Valgus Needs

Sterile-packed kits for operational efficiency

Lapiplasty® Accessory Kits

Headless Screws¹ SK20 2.5x20mm 2.5x28mm SK26 4.0x36mm 4.0x40mm



3.0x40mm 3.0x40mm SK25 4.0x36mm 4.0x40mm

Transverse Screws¹

SK19

3.5x23mm 3.5x26mm

Snap-Off Screws²

SK21

2.0x12mm 2.0x14mm

Fully Threaded Screws¹

SK37

4.0x32mm 4.0x36mm



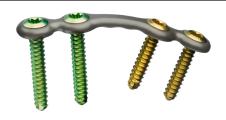
SK384.0x38mm
4.0x42mm

Lesser TMT Fixation Pack³

Single low-profile S1 plate w/ locking screws for lesser TMT fusions & other applications

SK28

S1 Plate 2.7x14mm (2) | 2.7x18mm (3)



Lapiplasty® Locking Screws®

2.7mm Locking Screw Pack SD28

2.7x12mm (2) 2.7x14mm (2)



Lapiplasty® FastPitch® Locking Screws®

- Plate Compression Screw thread design compresses plate to the bone during insertion⁵
- Faster Insertion Increased thread pitch results in 33% faster screw insertion6
- Lapiplasty® Compatibility Locking screws compatible with all Lapiplasty® plating systems*

2.7mm High Pitch Locking Screw Pack SD21

2.7x16mm (4)



2.7mm High Pitch Locking Screw Pack SD22

2.7x12mm (2) 2.7x14mm (2)

Refer to Treace Medical Concepts 09-00005L for full Instructions for Use 1. For complete information see ASTM F136-13, Standard Specification for Wrought Titanium-6Aluminum-4Vanadium ELI (Extra Low Interstitial) Alloy for Surgical Implant Applications (UNS R56401)

See Instructions for Use 1. LBL 1405-9056. | 2. LBL 1405-9110. | 3. LBL 1405-9005. | 4. LBL 1507-9005. | 5. TMC Data on file (ER 1405-0289). | 6. TMC Data on File (ER 1405-0313). Sawbones® is a registered trademark of Pacific Research Laboratories, Inc. *Excludes Lapiplasty System Gen 1 and Plantar Python 1 plates.

Lapiplasty® Sterile-Packed Instruments

SpeedRelease[™]

Guided Release Instrument

Sterile-packed, single-use instrument designed for quick and controlled release of the sesamoidal suspensory ligament and other soft tissues.

- Guided tip to direct insertion within the lateral joint capsule
- Cutting edge for quick and controlled release of the contracted soft tissue
- Sterile-packed for convenient delivery and consistent sharpness

SN20

TriTome

Triple-Edge Release Instrument

Sterile-packed, single-use instrument designed to release between the metatarsal bases for the Adductoplasty Procedure and other applications.

- Three cutting edges for guick and controlled soft-tissue release
- Thin 1.5mm cutting end to access challenging anatomy
- Sterile-packed for convenient delivery and consistent sharpness

SN21

FastGrafter

Autograft Harvesting System

Sterile-packed, single-use device designed for quick and efficient harvest of cancellous autogenous bone from the calcaneus, distal tibia, and other harvest sites through a minimal incision approach.

- Single-piece harvester designed to reduce instrumentation and system complexity
- Morselizing cutting tip penetrates cortex and morselizes bone during harvest
- Sterile-packed system designed for quick and efficient harvest of autograft bone

SK27

10

Refer to Treace Medical Concepts 09-00001L Sterile Instruments Instructions for Use, LBL 1507-9005 FastGrafter Instructions for Use

Lapiplasty® Sterile-Packed Instruments

LapiTome[®]

Hooked Bone Removal Osteotome

Sterile-packed, single-use instrument designed for quick and complete removal of osteotomy bone slices.

- Hooked feature designed to engage plantar aspect of bone slice for efficient removal
- Sharp tip to aid in releasing plantar bone slice attachments
- Sterile-packed for convenient delivery and consistent performance

SN25

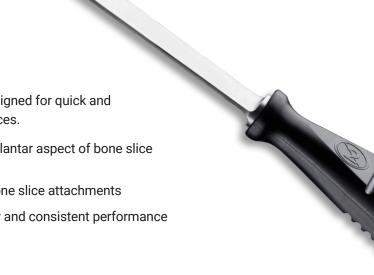
RazorTome

7mm Precision Osteotome

Sterile-packed, single-use instrument designed to release plantar soft tissue attachments following TMT bone cuts.

- Narrow design for precision usage
- Thin 1.2mm cutting end to access tight anatomy
- · Sterile-packed for convenient delivery and consistent sharpness

SN24





Before use of the system, the surgeon should refer to the appropriate instructions for use and surgical technique for complete warnings, precautions, indications, contraindications, and adverse events. Risks include, but are not limited to: infection, discomfort from the presence of the implant, loosening of the implant, and loss of correction with nonunion or malunion. If any of these occur, additional treatments may be needed. Additional information about risks, warnings, and instructions is available at Lapiplasty.com/surgeons/labeling.

To learn more, visit Lapiplasty.com





The Leader in Hallux Valgus Surgery™