stryker

TruAim™ Lisfranc System

Operative technique

TruAim™
Lisfranc System

Table of contents

This publication sets forth detailed recommended procedures for using Stryker devices and instruments. It offers guidance that you should heed, but as with any such technical guide, each surgeon must consider the particular needs of each patient and make appropriate adjustments when and as required.

⚠ WARNING

TruAim is a sterile, single-use kit. Do not reuse or reprocess.

⚠ WARNING

This product is single-use only and intended for use on one patient, during one procedure. All single-use instruments are defined as biohazard waste and therefore must be disposed of in accordance with the facility's waste disposal procedures.

Please remember that the compatibility of different product systems has not been tested unless specified otherwise in the product labeling.

Consult Instructions for Use for a complete list of potential adverse effects and adverse events, contraindications, warnings and precautions.

Indications, precautions and contraindications

Description

The TruAim Lisfranc System is a sterile single-use (single-procedure) Instrument Kit intended to aide in surgical reduction, targeting, and implantation of 5.0mm (cannulated) screws (such as Stryker Asnis III) and/or 4.5mm screws (such as Stryker Charlotte Lisfranc screws) during fixation of Lisfranc arthrodesis.

Indication for use

The TruAim Lisfranc System enables the implantation of the compatible implant systems.

Contraindications

For specific contraindications, please refer to the contraindications of the compatible implant systems.

NOTICE

For additional information about compatible implant and instrument systems please refer to their respective Instructions for Use (IFU).

Indications, precautions and contraindications

User/patient safety

⚠ WARNING

- Before using this instrument, read and understand the instructions. Pay particular attention to warning information.
- For use by qualified personnel trained in the use of surgical instruments and relevant surgical procedures.
- **Do not** use if packaging is opened, damaged, or show signs of tampering. The packaging of this product should be inspected for compromised sterile barrier.
- **Do not** use the product if shelf-life expiration date has passed. For shelf-life expiration date, refer to date printed on the product label.
- **Do not reuse or reprocess.** This product is single-use only and intended for use on one patient during a single procedure. Single-use equipment must be disposed of following the facility's waste disposal policy. All used single-use instruments are defined as biohazard waste and therefore must be disposed of in accordance with facility's procedures.
- Modification or mishandling of the instruments will invalidate the functionality of the instruments and may result in improper function of the instruments.

Instructions for use

Upon removal from packaging, inspect the instruments to ensure there is no damage. If damage is observed, discard the damaged instrument(s) and open a new single-use instrument kit.

After use, dispose the product in accordance with facility's waste disposal policy.

Sterility

This TruAim Lisfranc System Instrument Kit (991066S) is supplied by the manufacturer in a sterile condition; it has been sterilized by Gamma radiation.

Storage and handling

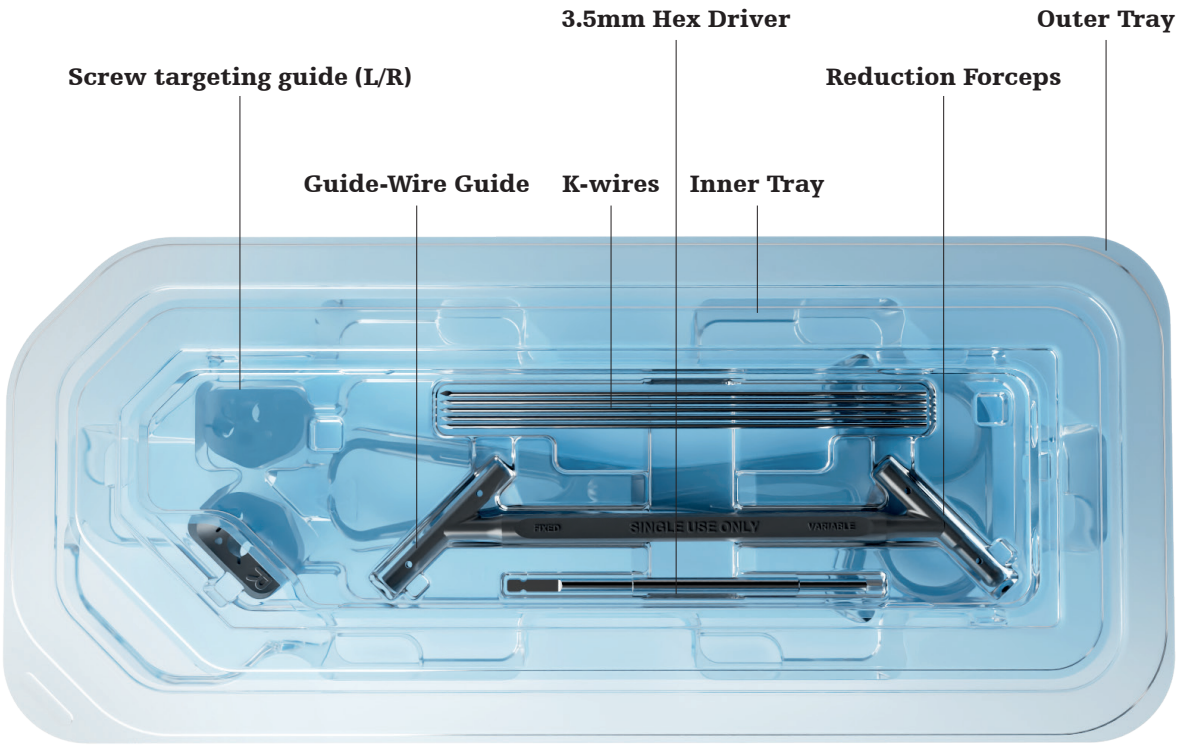
Devices should be handled with care at all times. Storage zones for surgical instruments should be away from areas of humidity and must be out of contact with UV rays and sources of electro-magnetic radiation.

⚠ CAUTION

Use caution when handling sharp instruments and instruments with pinch points such as bone reduction forceps.

Tray layout

Sterile packaging



Screw targeting guide (L/R)

Variable Angle Guide-Wire Guide

Reduction Forceps

Operative technique

Targeting guide placement and reduction

Insert one 2.0x150mm guide wire into the anterior hole of the targeting guide (Figure 1).

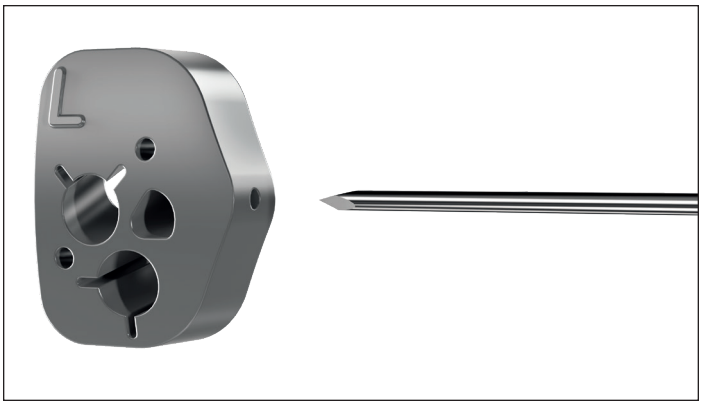


Figure 1

Place convex side of targeting guide along the medial aspect of the medial cuneiform, while aligning the 2.0x150mm guide wire with the long axis of the first metatarsal (Figure 2).

Using a 2.0x150mm guide wire (or by palpation), find the naviculocuneiform joint to establish the proximal position of the targeting guide.

Insert a 2.0x150mm guide wire just plantar to the medial cuneiform to establish dorsal/plantar placement of the targeting guide (optional).

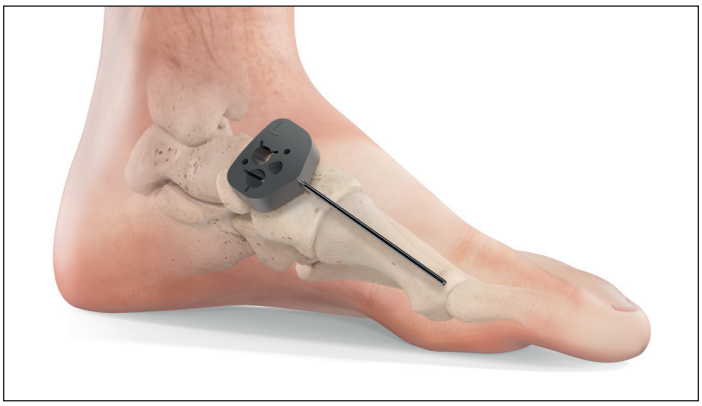


Figure 2

Once the targeting guide is in proper alignment, secure the guide with (2) temporary fixation pins through the holes in the targeting guide (Figure 3). The wires may be cut or bent to avoid interference with prep and placement of the screws.

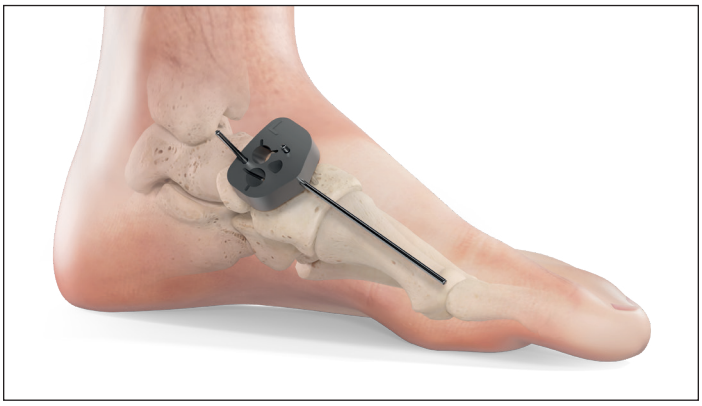


Figure 3

Reduce the Lisfranc complex by inserting the forceps tip under the 2nd metatarsal base and inserting the other tip through the small, anterior hole of the targeting guide. Tighten forceps until satisfactory reduction is achieved (Figure 4).

Once the guide is fixed, and satisfactory reduction is achieved, continue to either the Asnis III or the Charlotte Lisfranc technique steps to place two percutaneous screws.

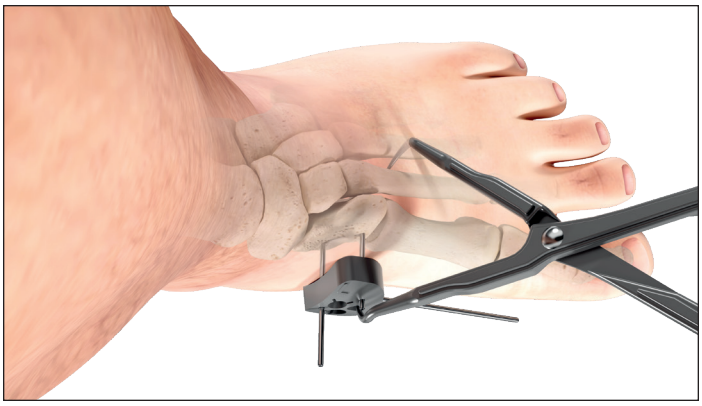


Figure 4

Asnis III 5.0mm Screw Placement

"Home run" screw

Using the guide-wire guide, place a 2.0x150mm guide wire in the plantar hole of the targeting guide (Figure 5).

Insert guide wire through the medial cuneiform and into the base of the second metatarsal, to the desired length.

Use fluoroscopy, as needed, to verify position. Remove the guide-wire guide.

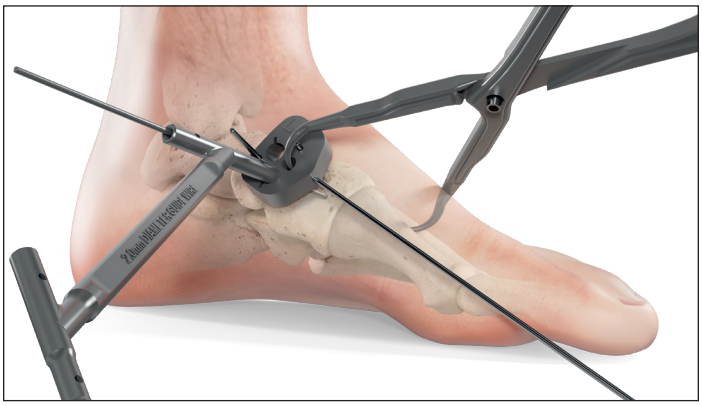


Figure 5

Slide the direct measuring gauge over the 2.0x150mm guide wire (Figure 6). The direct measuring gauge measures direct to the tip of the guide wire. This allows the final screw position to correspond with the initial tip position of the guide wire. Care should be taken to ensure the direct measuring gauge tip engages the bone when a reading is taken.

Using a #11 scalpel blade, make small incisions through the slots in the targeting guide to accommodate proper seating of the screw head.

Using the cannulated screwdriver with elastosil handle, insert the selected screw over the guide wire, until fully seated (Figure 6).

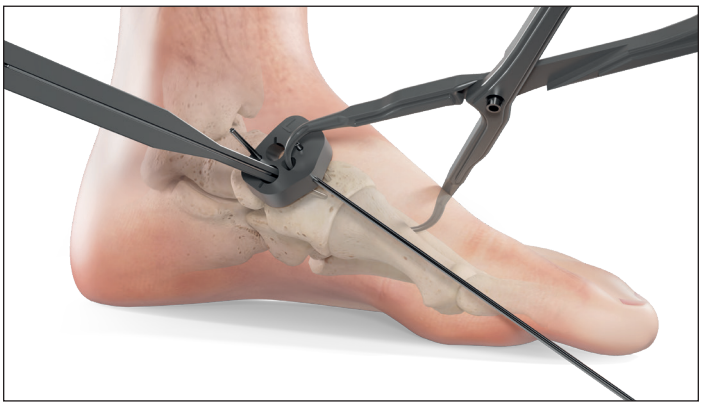


Figure 6

NOTICE

The Asnis III screw holding sleeve will not fit through the TruAim Targeting Guide.

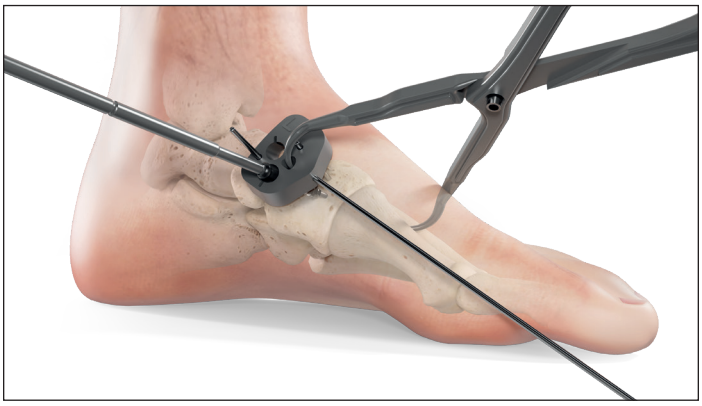


Figure 7

Asnis III 5.0mm Screw Placement

Intercuneiform screw

Using the guide-wire guide, place a 2.0x150mm K-wire through the medial cuneiform and into the intermediate cuneiform, to the desired length (Figure 8).

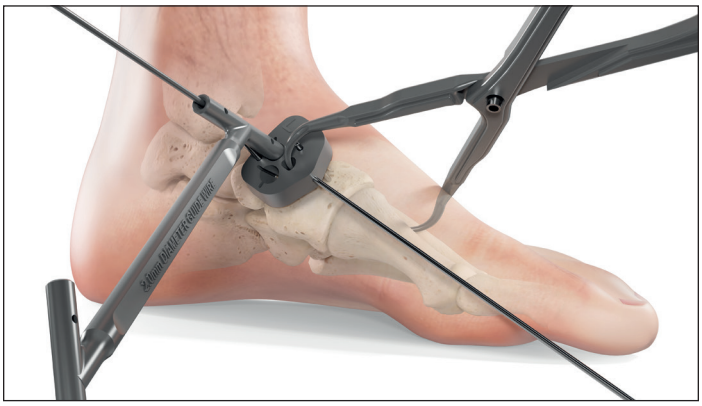


Figure 8

Slide the direct measuring gauge over the 2.0x150mm guide wire (Figure 9). The direct measuring gauge measures direct to the tip of the guide wire. This allows the final screw position to correspond with the initial tip position of the guide wire. Care should be taken to ensure the direct measuring gauge tip engages the bone when a reading is taken.

Using a #11 scalpel blade, make small incisions through the slots in the targeting guide to accommodate proper seating of the screw head.

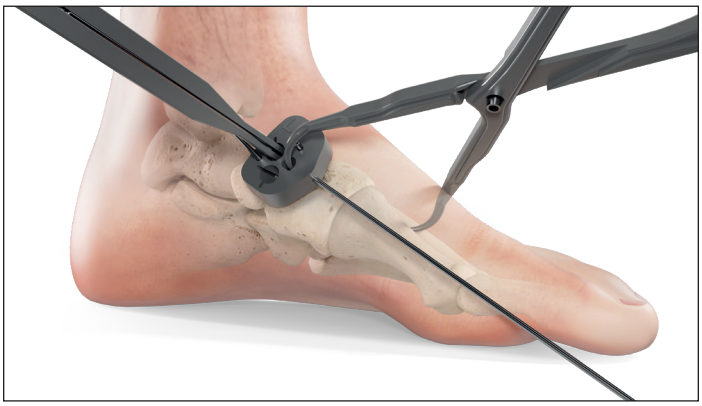


Figure 9

Using the cannulated screwdriver with elastosil handle, insert the selected screw over the guide wire until fully seated (Figure 10).

Remove K-wires, forceps, and targeting guide. Proceed to plating, as needed.

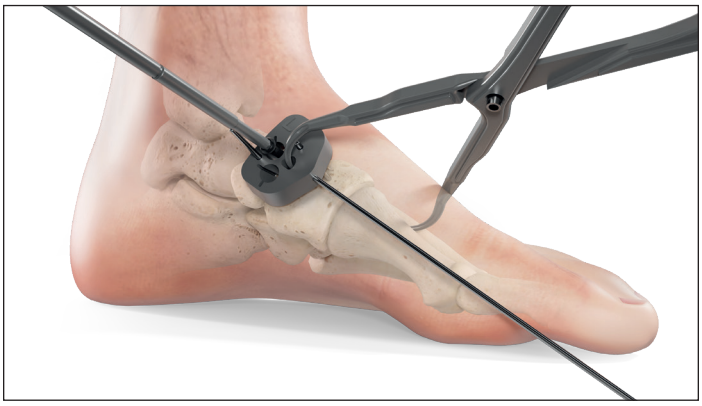


Figure 10

Charlotte 4.5mm Lisfranc screw placement

"Home run" screw

Using the guide-wire guide, place a 1.6x150mm guide wire in the plantar hole of the targeting guide (Figure 11).

Insert guide wire through the medial cuneiform and into the base of the second metatarsal, to the desired length.

Use fluoroscopy, as needed, to verify position. Remove the guide-wire guide.

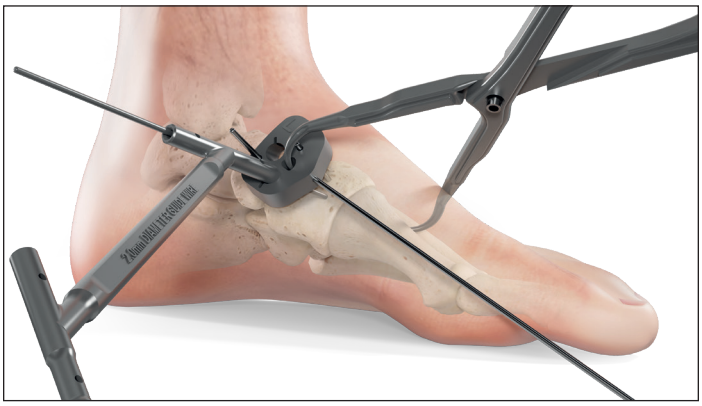


Figure 11

Place the Charlotte depth gauge over the 1.6x150mm K-wire and advance the tip of the depth gauge through the targeting guide, to the bone surface (Figure 12). Screw length is determined by the measurement shown on the sliding bar of the depth gauge. Care should be taken to ensure that the tip of the depth gauge rests on the bone surface for accurate screw measurement.

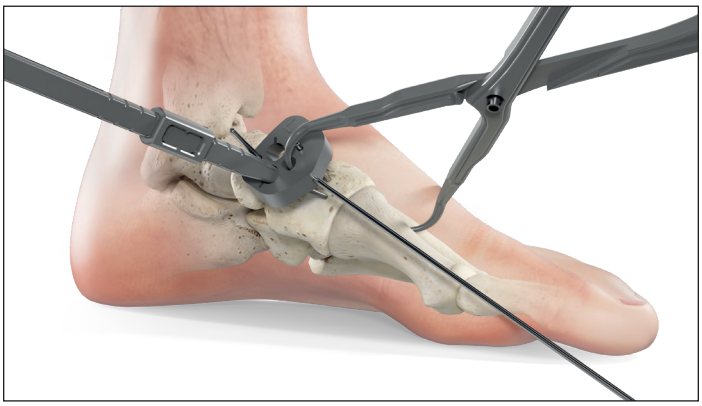


Figure 12

Using a #11 scalpel blade, make small incisions through the slots in the targeting guide to accommodate proper seating of the screw head.

Drill over the K-wire, using the 3.2mm cannulated pilot drill, to the appropriate depth (Figure 13).

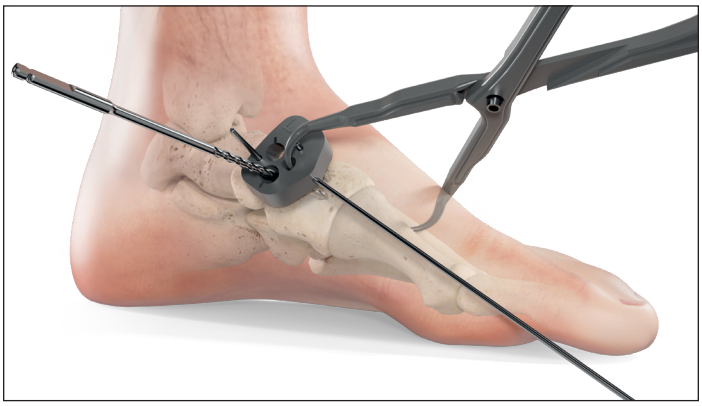


Figure 13

Remove the 3.2mm cannulated pilot drill and the K-wire.

Using the 3.5mm hex driver (in the TruAim Lisfranc System), drive the selected screw through the targeting guide until fully seated (Figure 14).

NOTICE

The Charlotte 3.5mm Hex Driver will not fit through the Targeting Guide.

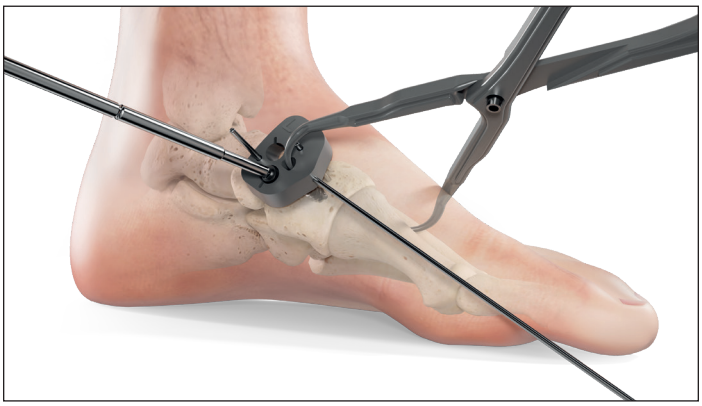


Figure 14

Charlotte 4.5mm Lisfranc screw placement

Intercuneiform screw

Using the guide-wire guide, place a 1.6x150mm K-wire through the medial cuneiform and into the intermediate cuneiform, to the desired length (Figure 15).

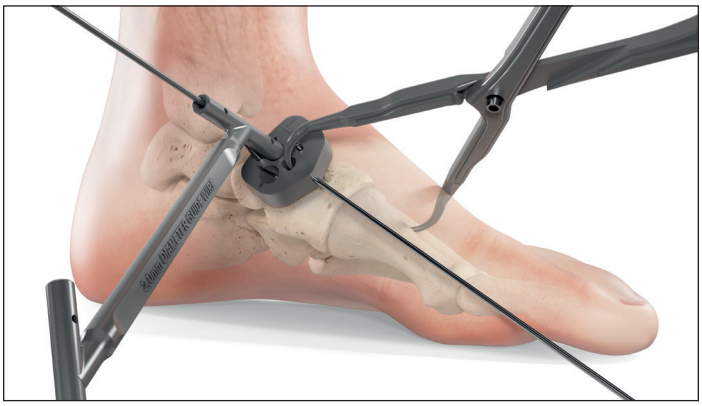


Figure 15

Place the Charlotte depth gauge over the 1.6x150mm K-wire and advance the tip of the depth gauge through the targeting guide, to the bone surface (Figure 16).

Screw length is determined by the measurement shown on the sliding bar of the depth gauge. Care should be taken to ensure that the tip of the depth gauge rests on the bone surface for accurate screw measurement.

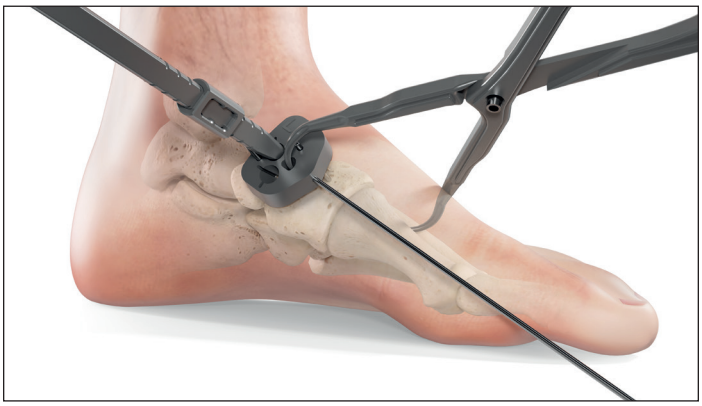


Figure 16

Using a #11 scalpel blade, make small incisions through the slots in the targeting guide to accommodate proper seating of the screw head.

Drill over the K-wire, using the 3.2mm cannulated pilot drill, to the appropriate depth (Figure 17).

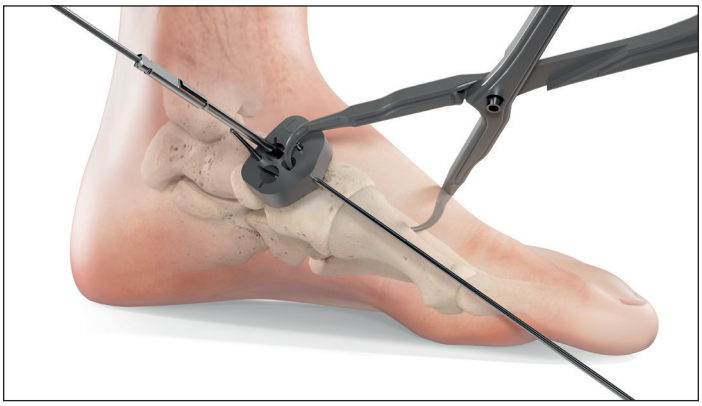


Figure 17

Remove the 3.2mm cannulated pilot drill and the K-wire.

Using the 3.5mm hex driver (in the TruAim Lisfranc System), drive the selected screw through the targeting guide until fully seated (Figure 18).

Remove K-wires, forceps, and targeting guide. Proceed to plating, as needed.

NOTICE

For more information on these implants, please refer to their respective operative techniques.

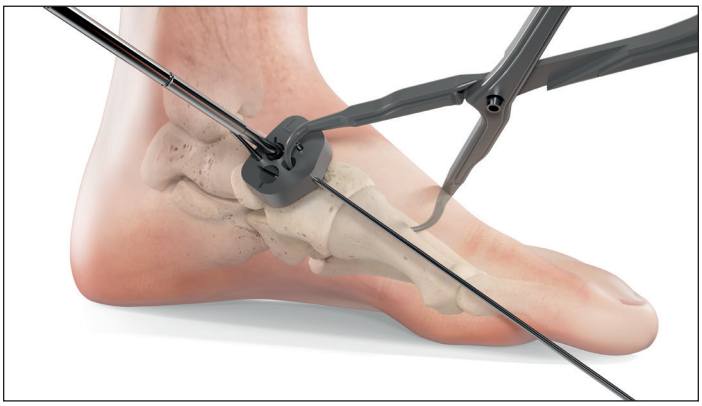


Figure 18

Notes

Notes

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Foot & Ankle

This document is intended solely for the use of healthcare professionals. A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that surgeons be trained in the use of any particular product before using it in surgery.

The information presented is intended to demonstrate a Stryker product. A surgeon must always refer to the product label and/or Instructions for Use, including the instructions for Cleaning and Sterilization (if applicable), before using any Stryker product. Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets. Please contact your Stryker representative if you have questions about the availability of Stryker products in your area.

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