OssAbility Guided TTA Instrument Set User Guide

Contents

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OssAbility Guided TTA Instrument Set

Specifications

- Osteotomy Guide for precise positioning
- Advancement Lever for tibial crest advancement
- Wedge Implant made of a porous biocompatible titanium alloy
- Tension band plate with cortical screws for crest stabilization

Product Usage Instructions

Step 1: Configure the TTA Guide
Match the Guide orientation to the patient's limb. Insert each offset pin into the dovetail, align with predetermined positions, and secure them in place.
Step 2: Apply the TTA Guide
Identify patellar tendon insertion, mark the proximal offset pin location, align pins to bone, and rest the Guide appropriately.
Step 3: Insert the proximal locating pin
Insert a 2.5 mm pin into the proximal locating pin hole, ensuring perpendicular alignment to the stifle motion plane.

Q: What materials are used in the Wedge Implant?
A: The Wedge Implant is made of a proprietary porous biocompatible titanium alloy.

Guided TTA
A step-by-step guide to performing Guided TTA
For the treatment of cranial cruciate ligament (CCL) disease by tibial tuberosity advancement.

Disclaimer

- OssAbility Guided TTA is intended for the treatment of cranial cruciate ligament (CCL) disease by tibial tuberosity advancement.
- The Guided TTA system consists of an Osteotomy Guide that is configurable for an individual patient to control the position and orientation of the osteotomy.
- The tibial crest is advanced using an Advancement Lever to facilitate easy implant placement.
- The crest advancement is maintained by a Wedge Implant made of a proprietary porous biocompatible titanium alloy that facilitates rapid bone healing without the use of bone graft.
- The crest is stabilised using a tension band plate with cortical screws.
- The Guided TTA Surgical Technique describes the general principles of application.
- The success of any treatment relies on careful pre-operative planning and accurate surgical technique.
- OssAbility can assist you to identify products, methods of application, and potential risks to help you make an informed decision on the treatment of your patient.
- Access Decision Support at **support.ossability.com**
- All clinical actions are the sole responsibility of the veterinarian providing treatment for the patient.

INSTRUCTRION STEPS

1. Step 1

   Configure the TTA Guide= according to the pre-op plan

   Match the orientation of the Guide (left or right marking) to the patient's limb.

   Insert each offset pin into the dovetail. Align each pin with the predetermined position. Secure each pin in place by tightening the thumbscrew.

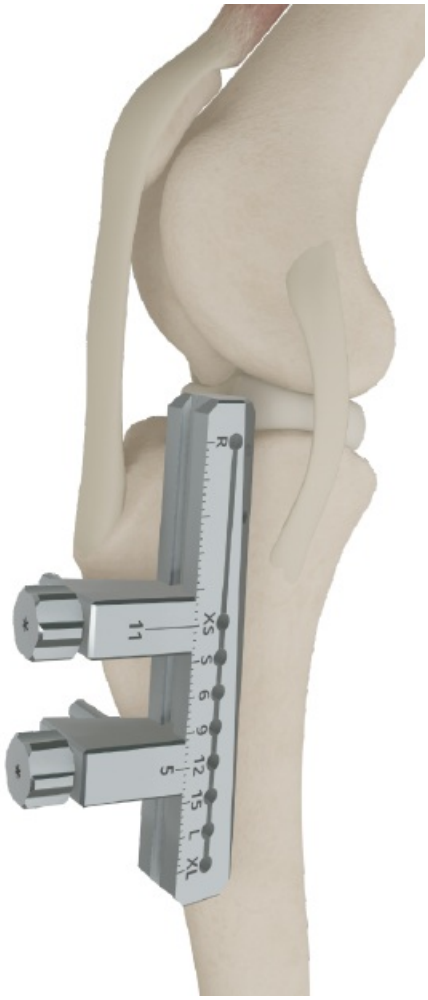
2. Step 2

   Apply the TTA Guide to the patient according to the pre-op plan

   Identify the patellar tendon insertion. Measure and mark the predetermined location of the proximal offset pin on the bone.

Align the proximal offset pin to the mark. Ensure both offset pins are in contact with the bone.

Rest the Guide on the bone or medial buttress if present.



3. Step 3
    - Insert the proximal locating pin
    - Insert a 2.5 mm single-trocar pin into the proximal locating pin hole.
    - Extend the pin over the proximal tibial surface, under the fat pad, and caudal to the patellar tendon.
    - Check that the pin is perpendicular to the plane of stifle motion.

4. Step 4

   Drill the Maquet hole

   Identify the Maquet hole position on the Guide according to the pre-op plan.

   Drill the Maquet hole bicortically using a 2.5 mm bit. Leave the bit in place.

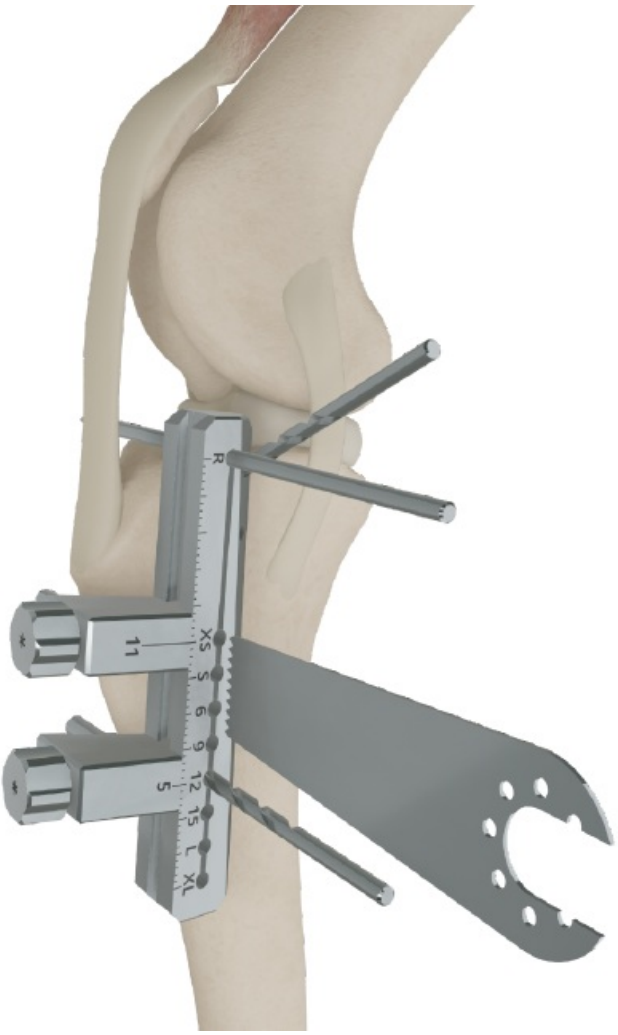
5. Step 5
    - Drill the oblique locking bit
    - Check the offset pins are in contact with the bone.
    - Apply gentle pressure to the Guide and offset pins to maintain contact.
    - Identify the oblique locking hole directed away from the stifle.
    - Insert a 2.0 mm bit into the oblique locking hole and drill bicortically. Leave the bit in place.

6. Step 6

   Perform the osteotomy

   Incise the periosteum through the Guide using a scalpel.

   Perform the osteotomy using a sagittal saw. Use copious saline lavage. Maintain blade alignment with the Guide.



7. Step 7

   Remove the TTA Guide

   Remove the oblique locking bit, Maquet bit, and proximal locating pin.

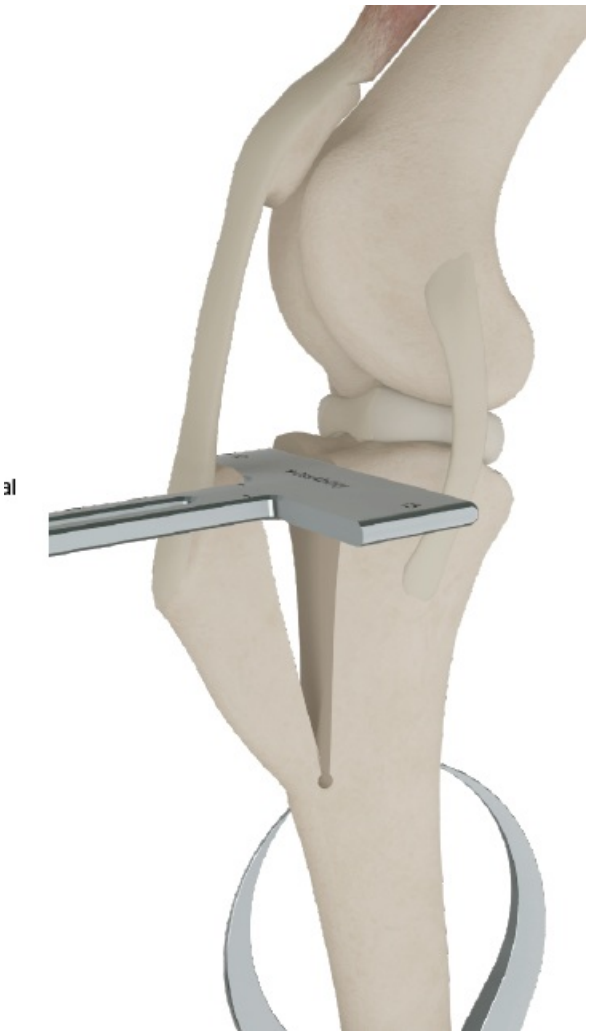
   Remove the Guide.

8. Step 8
    - Introduce the Advancement Lever
    - Compress the bone hinge immediately distal to the Maquet hole with pointed reduction forceps.
    - Open the osteotomy with a periosteal elevator. Release lateral tissue if required.
    - Introduce the Advancement Lever corresponding to the selected Wedge Implant. Position the Advancement Lever 3 mm distal to the proximal aspect of the osteotomy, engaging the far cortex.
    - Remove the periosteal elevator.

9. Advance the tibial tuberosity

   Slowly rotate the Advancement Lever to open the osteotomy.

   Ensure the Advancement Lever is flush with the proximal aspect of the osteotomy.



10. Step 10
    - Insert the Wedge Implant
    - Lavage the surgical site with saline.
    - Handle the Wedge Implant using forceps.
    - Insert the Wedge Implant into the osteotomy immediately distal to the Advancement Lever.
11.

Step 11

- Check the Wedge Implant position
- Remove the Advancement Lever.
- If treating MPL, lateralise the tibial tuberosity to achieve alignment of the patellar tendon.
- The final position of the Wedge Implant should be 3 mm distal to the proximal aspect of the osteotomy and flush with the medial bone surface.
- Adjust the Wedge Implant position if required.
- Remove pointed reduction forceps from the bone hinge. Reapply across the osteotomy to compress the construct.

12. Step 12

    Contour the plate

    Contour the plate using the plate-bending recesses of the Advancement Levers.

    If treating MPL, match the contour to the lateralised tibial tuberosity.

13. Step 13

    - Place the plate according to the pre-op plan
    - Position the plate on the tibia according to the pre-op plan.
    - Check the proximal screws are centred on the crest and distal to the patellar tendon insertion.
    - Check the distal screws are centred on the diaphysis.
    - Drill and place the screws in the following order: most proximal screw, most distal screw, and then the

remaining screws.

- Remove the pointed reduction forceps.

14. Step 14
    - Compare the completed construct to the pre-op plan
    - Check the Wedge Implant placement. Check the plate placement.
    - If treating MPL, check patellar tendon alignment.
    - Perform post-op radiographs.

Contact information

- OssAbility Limited
- Website **www.ossability.com**
- Email **info@ossability.com**
- Decision Support **support.ossability.com**
- Guided TTA Instructions for Use
- Version 2.2
- Products described in this document may be covered by patent.
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Documents / Resources

	**OssAbility Guided TTA Instrument Set** [pdf] User Guide Guided TTA Instrument Set, TTA Instrument Set, Instrument Set, Set

References

- **User Manual**