

SURGICAL TECHNIQUE

OrthoSta
KNOTLESS LIGAMENT REPAIR SYSTEM



Product Information

Extracapsular Solutions

At Movora, we have a vision to improve the quality of life and enhance mobility for companion animals. We're committed to making life-enhancing care accessible through a broad portfolio of surgical options and education for continuous improvement in surgical technique.

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OrthoSta

Knotless Ligament Repair System

A versatile repair system designed for lateral stabilization and other ligament injuries crucial for sports medicine.

Product Benefits

- Ultra-High strength Woven UHMWPE Tape
- Titanium alloy interference screw fixation
- Features Healix™ antimicrobial technology
- Versatile for multiple joint injuries



Product Components



OrthoSta UHMWPE Woven Tape featuring HEALIX Technology

- Available in 2 sizes
- Knotless and Crimpless
- Complete with titanium button and blunt needle
- 36cm – 60cm long, woven not braided for added strength
- Packaged sterile



OrthoSta Interference Screws

- Available in 2 sizes with star recess
- Titanium alloy
- Specifically designed threads minimize abrasion to the OrthoSta tape
- Packaged non-sterile



OrthoSta Taps

- Available in 2 sizes
- Laser etched depth marking
- Use with Tap Handle: Item TH QCK



Drill Bits and Aiming Guide

Cannulated Drill Bits are recommended for precision drilling in conjunction with:

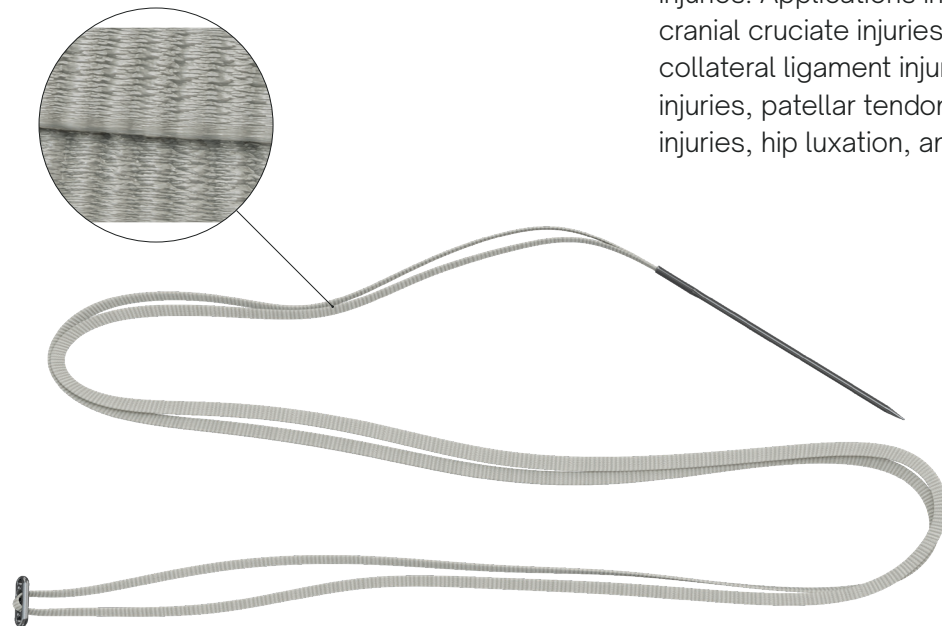
- Aiming Guide with cannulas for 0.045 and 0.062 wires: Item 100017
- K Wires 0.045 and 0.062: Items 01045 and 01062

Preparing for Use

Device Description

The OrthoSta System consists of two sizes of woven Ultra-High Molecular Weight Polyethylene (UHMWPE) tape coated in Healix, a silver ion antimicrobial, prefixed with a stainless-steel blunt needle and titanium suture button. The OrthoSta system is used in conjunction with titanium alloy interference screws, stainless-steel taps, and surgical accessories including a screwdriver and drill bits.

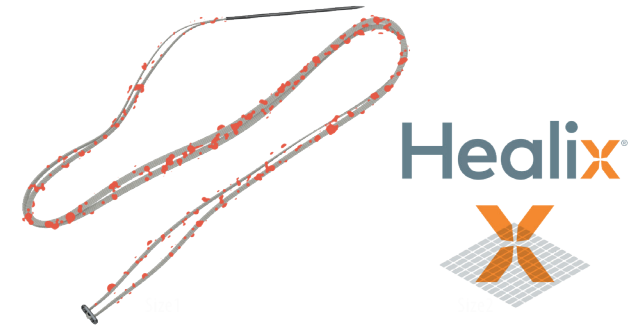
OrthoSta is ideal for repair of the canine stifle for CCL disease effectively acting as a prosthetic extracapsular ligament. The woven tape is



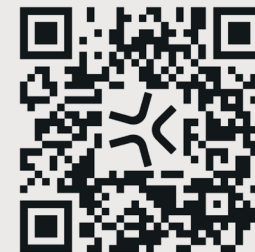
tunneled through the femur isometric spot F2 held in place by a Titanium alloy button, then passed through the tibia at T3 where it is attached using a Ti alloy interference screw to secure it with the desired tension. This knotless and crimpless system reduces soft tissue irritation at the surgical site, and the coated material reduces the chance of infection.

Indications

The OrthoSta System is intended for veterinary use in the management of ligament and tendon injuries. Applications include stabilization of cranial cruciate injuries, ligament injuries, collateral ligament injuries, common calcaneal injuries, patellar tendon injuries, triceps tendon injuries, hip luxation, and shoulder instability.



Healix antimicrobial utilizes a zeolite carrier to effectively and efficiently deliver trimodal efficacy - starving, sterilizing, and suffocating even the most resistant strains of bacteria.

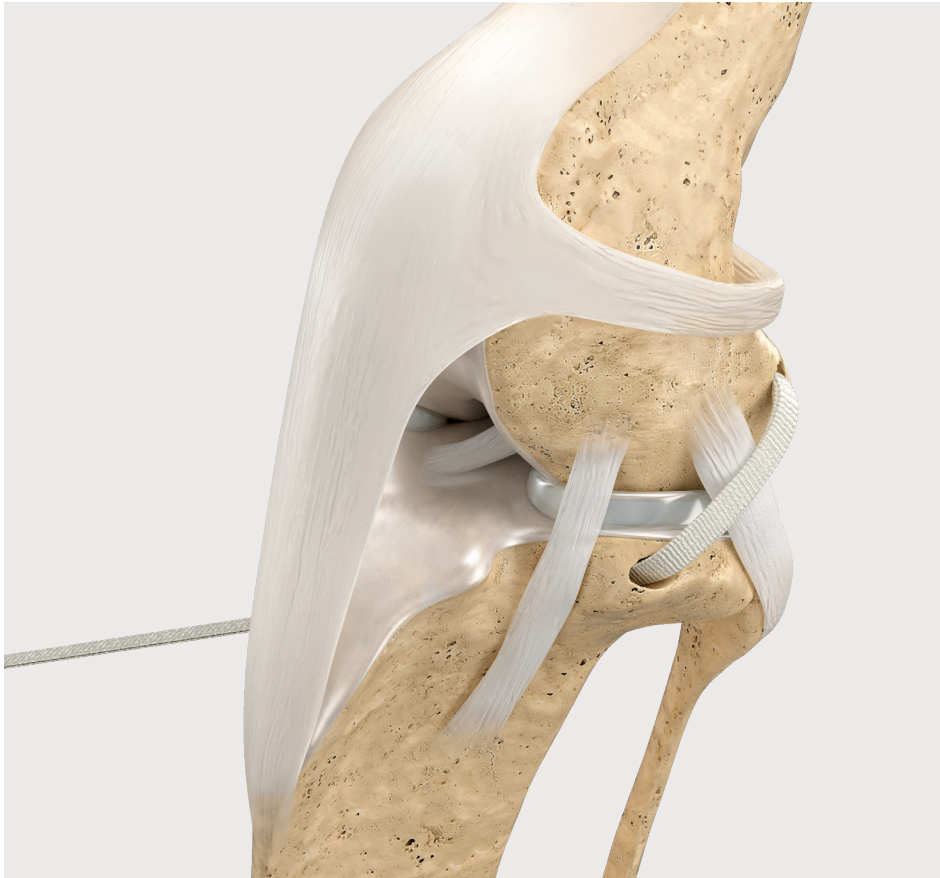


Explore our online resources page to find more information regarding OrthoSta including this document and eIFUs.
movora.com/resources

Technical Guidance

OrthoSta

The OrthoSta system is ideal for extracapsular repair for CCL Disease and the management of other joint injuries. Designed closely alongside top veterinary orthopedic surgeons, OrthoSta featuring Healix technology offers a simple, safe, and effective system with multiple uses in veterinary medicine.



Product Selection

1. Use the weight chart to determine proper OrthoSta tape size.
2. Select the proper drill bit diameter to correspond to the OrthoSta tape.
3. Select the proper tap and interference screw to secure the OrthoSta tape.

Suggested Weight Range

OrthoSta Tape Size	0-40 lbs (<18kg)	40+ lbs (>18kg)
2mm	OSFTL 2036	
4mm		OSFTL 4060

K Wire and Drill Bit Selection

OrthoSta Tape Size	K Wire	Drill Bit
2mm	0.045 (1.143mm)	CAN 2.5 160 QCK
4mm	0.062 (1.575mm)	CAN 3.2 170 QCK



Screw and Tap Selection

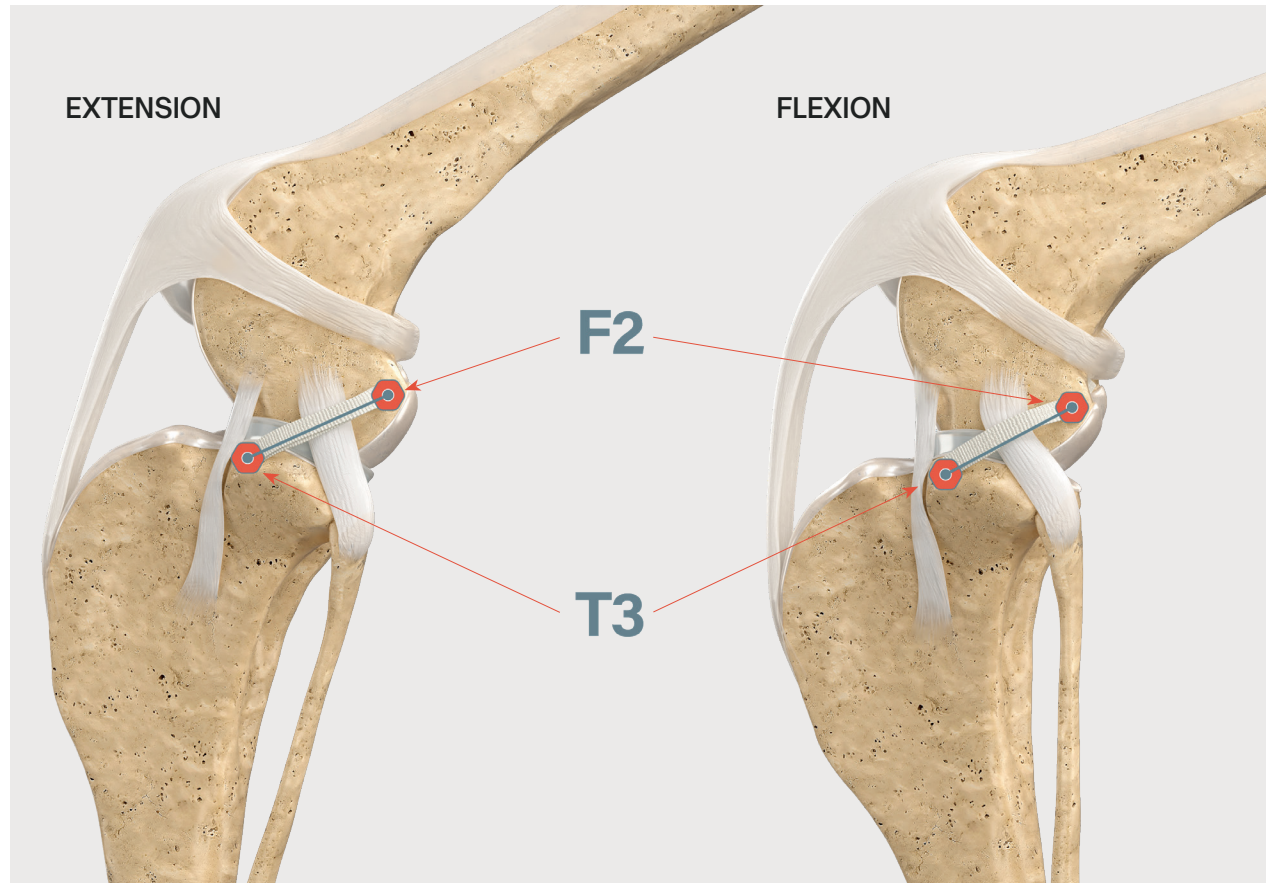
OrthoSta Tape Size	Interference Screw	Tap
2mm	OSIS 200.08	OSTAP 2.0
4mm	OSIS 400.13	OSTAP 4.0

Isometric Location Reference

OrthoSta System Isometry

Isometry can be defined as the position of 2 points on opposite sides of a joint that maintain the same distance apart as the joint is moved through the entire range of motion. The woven

tape should be placed at these predetermined isometric sites to improve stability, decrease stress on the ligament, and allow the most normal joint motion.



F2 and T3: these are the recommended site for ligament attachment based on a study performed by Dr Don Hulse DVM, DACVS at Texas A&M University.

Femur F2 site is at caudal aspect of lateral femoral condyle just distal to articulation of fabella and femur.

Tibia T3 site is just caudal to groove for long digital extensor tendon at the level of the joint surface.

It is important to implant the woven tape at the F2 site of the femur which is located very caudal in the lateral femoral condyle and just distal to the femorofabellar articulation. Then, it is important to run the woven tape through the T3 site of the tibia which is located just caudal to the groove for the long digital extensor tendon very proximal on the tibia adjacent to the joint line.

An extracapsular suture placed in this location provides the most resistance to cranial tibial translation (cranial drawer).

Positioning the woven tape at the predetermined isometric points means it will have less stress on it as the patient bears weight on the leg during ambulation.

The optimal range of motion of the joint is seen when placement of the woven tape is at this location.

Implant Fixation



Aiming Guide Item 100017 is properly positioned on the femur in preparation for creating a bone tunnel for the OrthoSta woven tape. The aiming guide has two separate cannula that accept 0.045 and 0.062 K Wires.



A K Wire is placed in the femur such that it enters the femoral attachment site across the femoral condyle and should be aimed such that it exits the medial aspect of the femoral condyle away from the trochlea. The bone tunnel must be aimed proximal to the intercondylar notch to



avoid inadvertent injury to the caudal cruciate ligament and remaining fibers of the CrCL in the case of a partial CrCL tear. A cannulated drill bit is then used to drill a bone tunnel through the femur using the K Wire as a guide.



The Aiming Guide is now placed on the tibia in preparation for a bone tunnel. A K Wire is placed lateral to medial through the tibial attachment site across the proximal tibia and is aimed such that it exits the mid-portion of the medial aspect of the proximal tibia. Note the K Wire starting position at the



eminence just caudal to the groove for the LDE tendon at the level of the joint surface. Be sure and aim the K Wire so that it does not inadvertently enter the LDE groove. A cannulated drill bit is then used to drill a bone tunnel through the tibia using the K Wire as a guide.

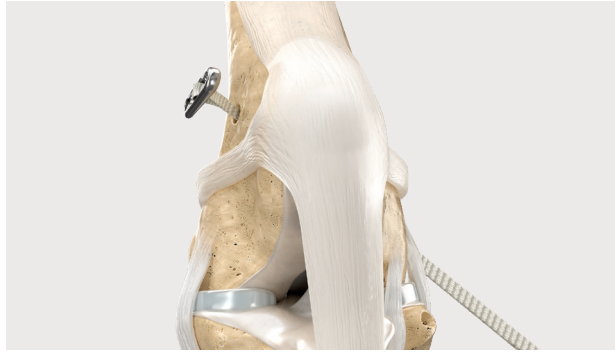


The medial aspect of the tibial tunnel is prepared for the OrthoSta Interference Screw using the appropriate OrthoSta Tap. The tap has a laser etched marking which shows the depth of the corresponding interference screw that will be used to secure the woven tape.

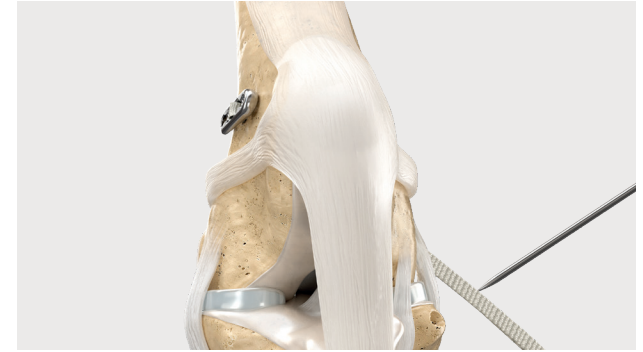
Implant Fixation



The OrthoSta woven tape is passed through the femoral bone tunnel using the attached blunt needle from the medial to lateral aspect of the femoral condyle Medially,



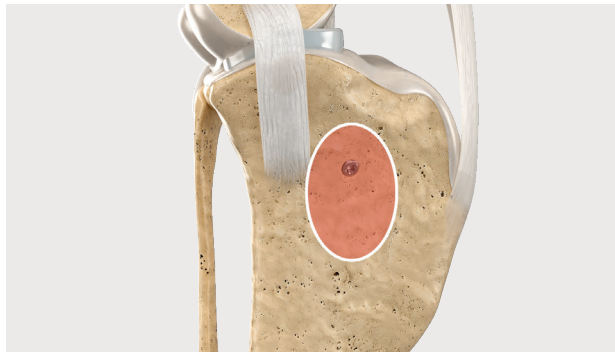
there should be no soft tissue lying underneath the OrthoSta button.



Note, the OrthoSta button should lie directly on the bone.



The OrthoSta woven tape is then passed through the tibial bone tunnel from the lateral aspect of the tibia to the medial aspect of the tibia as shown

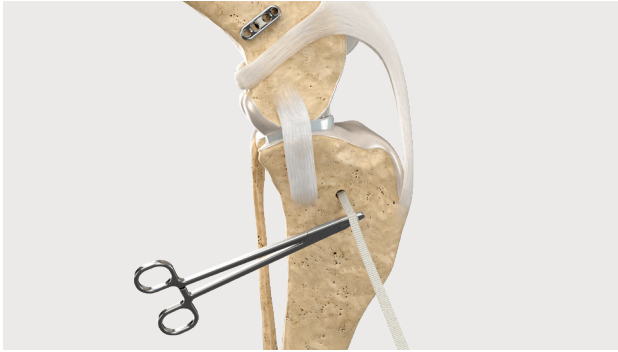


The exit point of the woven tape on the medial aspect of the tibia is not critical - anywhere in the medial aspect of the proximal tibia, the center is best because there is less soft tissue in this area.

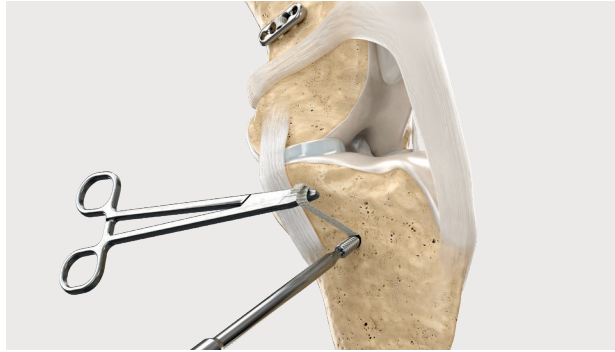


The OrthoSta woven tape is tightened to the appropriate tension using a hemostat or needle holder as shown to achieve adequate stability (1-2 mm cranial drawer).

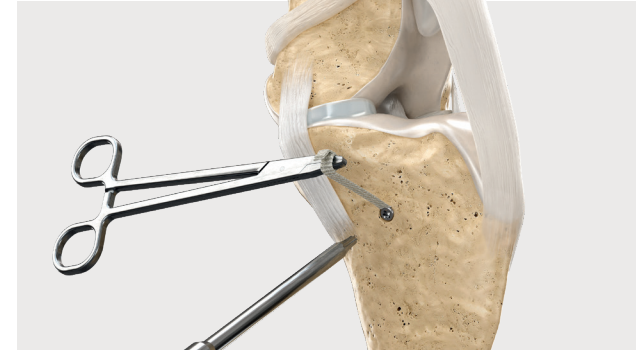
Implant Fixation



The joint should be cycled through the range of motion while maintaining tension on the woven tape and then checked for cranial drawer. If there is no cranial drawer the traction should be relaxed slightly as the normal joint has 1-2 mm cranial drawer. If there is excessive cranial drawer, the woven tape should be tightened until proper tension is achieved.



While maintaining proper tension of the woven tape, the OrthoSta Interference Screw is placed to secure the woven tape. Cranial drawer can be checked again when screw is halfway. If the cranial drawer needs to be fixed, the



screw can be removed, and tension readjusted. If tension is acceptable, the OrthoSta Interference screw can be tightened flush to the bone.



The OrthoSta woven tape is cut using a scalpel blade flush to the bone.



Note that following proper placement of the OrthoSta woven tape, tension is maintained throughout full range of motion of the stifle.



Important Surgical Considerations

This description of surgical technique for the OrthoSta System is provided as an educational tool and clinical aid to assist properly licensed veterinary medical professionals in the usage of specific Veterinary Orthopedic Implants products. As part of this professional usage, the veterinary medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the veterinary medical professional should rely on their own training.



Please review the Instructions for Use
Available at movora.com/resources



Explore options for online education and in-person
labs to learn more about Movora's extracapsular
solutions. education.movora.com



3. ITEMS AND SIZES



Container

Item#	Product Description
SC M	Micro Sterilization Case, for Interference Screws
SAH.K61962	Vet Spectrum EverGreen Narrow Sterilization Container Base
SAH.K61971	Vet Spectrum EverGreen Narrow Sterilization Container Lid
SAH.K2744	Vet Spectrum EverGreen Narrow Teflon Reusable Filter
SAH.K31073S	Vet Spectrum EverGreen Narrow Sterilization Container Basket, Wire, Short
SAH.K2520	Vet Spectrum EverGreen Narrow Sterilization Container Silicone Mat

Screwdriver and Blades

Item#	Product Description
500002	Screwdriver Handle, Composite, Quick Coupling
500035	DLC Screwdriver Shaft, T6, QCK
500036	DLC Screwdriver Shaft, T8, QCK

OrthoSta Tape

Item#	Product Description
OSFTL 2036	OrthoSta UHMWPE Woven Tape 2mm, Blunt Needle, 36cm, TI SB-AS, Healix Antimicrobial
OSFTL 4060	OrthoSta UHMWPE Woven Tape 4mm, Blunt Needle, 60cm, TI SB-PS, Healix Antimicrobial

Interference Screws

Item#	Product Description
OSIS 200.08	OrthoSta Interference Screw for 2mm Tape
OSIS 400.13	OrthoSta Interference Screw for 4mm Tape

Taps

Item#	Product Description
OS TAP 2.0	OrthoSta Tap, for 2mm Tape, Stainless Steel
OS TAP 4.0	OrthoSta Tap, for 4mm Tape, Stainless Steel
TH QCK	T Handle, Quick Coupling, for Tap

Drill Bits, Aiming Guide, K Wires

Item#	Product Description
CAN 2.5 160 QCK	2.5mm Cannulated Quick Coupling Drill Bit, 160mm, for .045 K Wire
01045	K-Wire, 0.045 x 9", pkg of 6
CAN 3.2 170 QCK	3.2mm Cannulated Quick Coupling Drill Bit, 170mm, for .062 K Wire
01062	K-Wire, 0.062 x 9", pkg of 6
100017	Aiming Guide, C Arm, for K Wire, cannula w .045" and .062"

Optional

Item#	Product Description
2.5 QCK 110 DLC	2.5mm Quick Coupling Drill Bit, DLC Coated, 110mm
3.2 QCK 145	3.2mm Quick Coupling Drill Bit, 145mm
DDS 2.5/3.5	Double Sided Drill Sleeve Guide, 2.5/3.5mm
GS 86.2505	Double Sided Drill Sleeve Guide, 3.2/4.5mm



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