



KNOTLESS/CRIMPLESS LATERAL STABILIZATION SYSTEM

Isometric. Adjustable. Strong.

From the engineers that delivered the first crimping system, snap-off bone anchors, cruciate needles, swaged-on monofilament and custom instruments.

Features and Benefits:

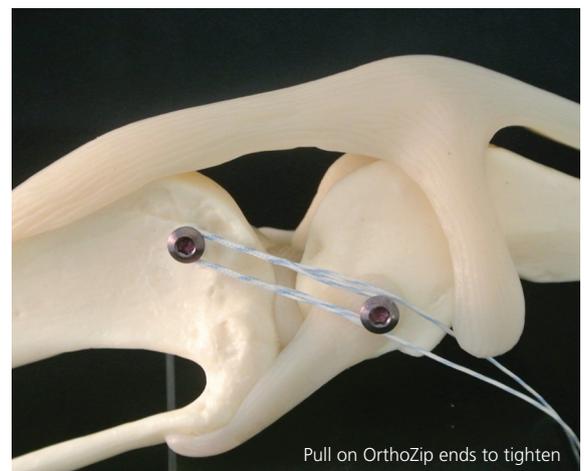
- Strong, Fast & Effective
- Placed at Isometric Sites
- More Uniform Tension
- Smooth Rotation Posts
- Reduced Surgery Time
- **Less Inventory**
- Adjustable to Desired Size
- **Out Performs** Monofilament and Other Fibers*
- Many Applications
- Versatile
- Cost Effective
- Mechanically Tested
- High-Strength
- Minimal Elongation
- Available in USP #2 or #5
- Possible Minimally Invasive surgery



Isometrically place OrthoZip Ti Posts



Place OrthoZip adjustable locking loop over posts



Pull on OrthoZip ends to tighten



For more information call
VetQuip now on 1300 888 427

OrthoZip Products

OrthoZip Rotax Posts

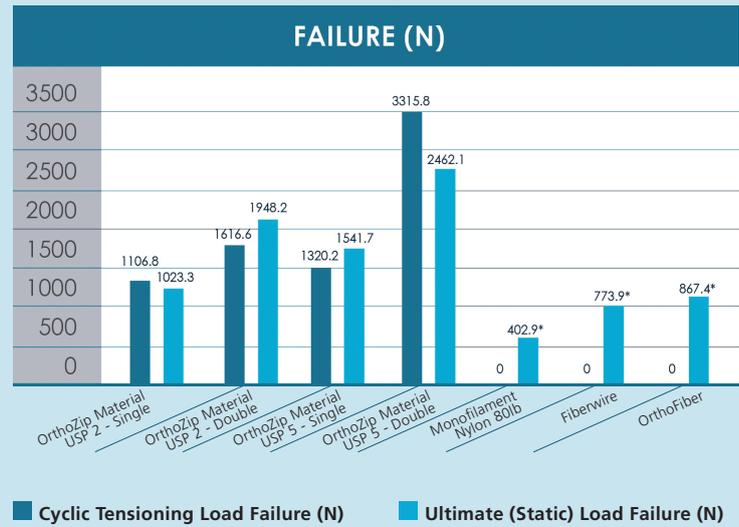
- Titanium posts provide smooth, stress-free surface for suture to rotate on
- Post heads keeps suture securely on post body
- Self tapping, Hex drive
- Available in many lengths

OrthoZip

- Made from UHMWPE (Ultra High Molecular Weight Polyethylene) orthopedic suture
- Available in USP #2 and #5
- >2X the strength of standard fiber loops
- Blue tracer fiber for easy visibility
- Pre-sterile ready to use
- Many applications

Lateral Stabilization

- High grade medical certified materials
- Very high strength with minimal elongation
- No knot, No crimp, No expensive instrumentation



*Fiberwire is a registered trademark of Arthrex, OrthoFiber is a registered trademark of MWI. **Data collection for monofilament, Fiberwire & Orthofiber is from "Mechanical testing of orthopedic suture materials used for extra-articular stabilization of canine cruciate ligament-deficient stifles College of Veterinary Medicine, University of Minnesota."

PRODUCT CODE	DESCRIPTION	QTY
E-CR005630	OrthoZip Adjustable Locking Loop, UHMWPE # 2	
E-CR005632	OrthoZip Adjustable Locking Loop, UHMWPE # 5	
E-CR005631	OrthoZip Adjustable Locking Loop, UHMWPE # 2, Box of 6	
E-CR005633	OrthoZip Adjustable Locking Loop, UHMWPE # 5, Box of 6	
E-CR263102	Kit, OrthoZip Starter 3.5mm	
E-CR005631	OrthoZip Adjustable Locking Loop, UHMWPE # 2, Box of 6	
E-CR005612	3.5mm x 16mm Rotax OrthoZip Post	1
E-CR005608	3.5mm x 18mm Rotax OrthoZip Post	2
E-CR005609	3.5mm x 20mm Rotax OrthoZip Post	2
E-CR263101	Kit, OrthoZip Starter 2.7mm	
E-CR005631	OrthoZip Adjustable Locking Loop, UHMWPE # 2, Box of 6	1
E-CR005661	2.7mm x 14mm Rotax OrthoZip Post	2
E-CR005662	2.7mm x 16mm Rotax OrthoZip Post	2
E-CR005663	2.7mm x 18mm Rotax OrthoZip Post	2
E-CR263100	Kit, OrthoZip Starter 2.4mm	
E-CR005631	OrthoZip Adjustable Locking Loop, UHMWPE # 2, Box of 6	1
E-CR005650	2.4mm x 12mm Rotax OrthoZip Post	2
E-CR005651	2.4mm x 14mm Rotax OrthoZip Post	2
E-CR005652	2.4mm x 16mm Rotax OrthoZip Post	2
E-CR005651	2.4mm x 14mm Rotax OrthoZip Post	2
E-CR005652	2.4mm x 16mm Rotax OrthoZip Post	2



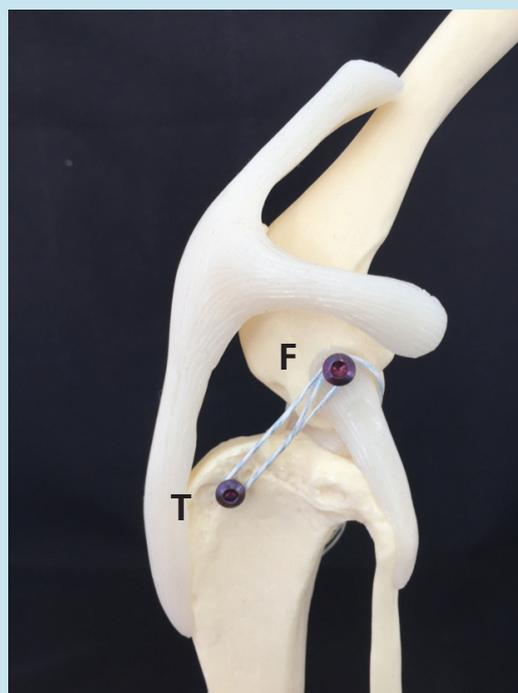
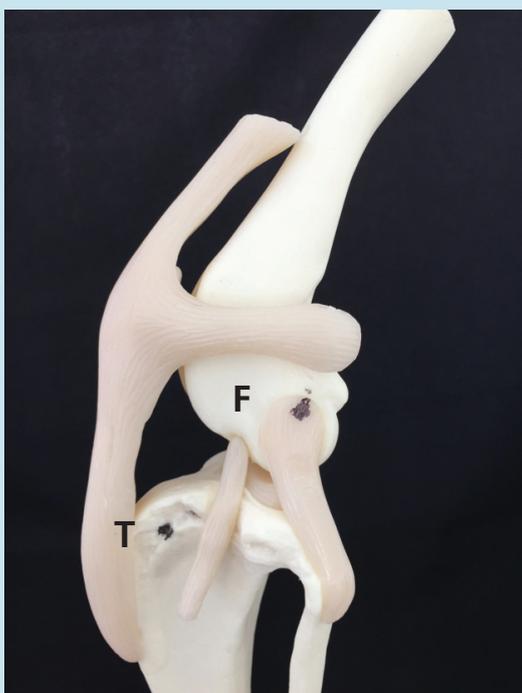
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Everost OrthoZip

OrthoZip - Isometric Location Reference

There have been numerous publications over the years that address different anchoring points when placing lateral sutures for stifle stabilization. There are some similar findings between them but also some difference. Everost highly recommends assessing each individual patient to find the best location for that specific case. Extra time should be spent on locating the ideal locations for the OrthoZip posts. Everost offers an isometric location device that helps in this step.

For Reference, the illustration below depicts the findings of three different publications. Each publication is referenced below and we recommend each be reviewed prior to surgery.



Location F (Femur) – caudal edge of the lateral femoral condyle, immediately adjacent to the distal pole of the fabella. This is located directly over the origin of the CCL.

Location T (Tibia) – is located near the joint line approximately 2--5mm cranial to the sulcus of the long digital extensor tendon. This location should also be 7mm from the tibial tuberosity.

Everost OrthoZip

Everost Isometric Device

The Everost Isometric Device was designed to provide a simple way to determine if the chosen locations for the OrthoZip Anchors are isometric. Isometric, in its simplest terms means that the two locations that are chosen stay roughly the same distance apart during flexion and extension. This can be determined by placing .062 K--wires in the desired locations, placing the Isometric Device over the pins and putting the leg through a range of motion. Detailed steps are below. Fig. 1 is an unassembled Isometric Device and Fig. 2 is an assembled Isometric Device.



- Fig. 1 illustrates the unassembled device. You will notice a hole to the left, three holes on the right piece (golden arm) and graduations (1mm) on the right piece.
- The three holes on the right piece are spaced so that the user chooses the right hole based on pin spacing.
- There is only one hole on the left piece; this is the “zero” mark. The “stroke” during flexion and extension is originated from the pin location.



Step 1

Determine the preferred isometric points. Please reference the publications listed at the bottom of this document.



Step 2

Place a small k--wire (.062) in the desired femoral location. Be aware that it is best to have the two pins parallel to each other after they are both placed. Attempt to have the pins perpendicular to the axis of the tibia and femur.

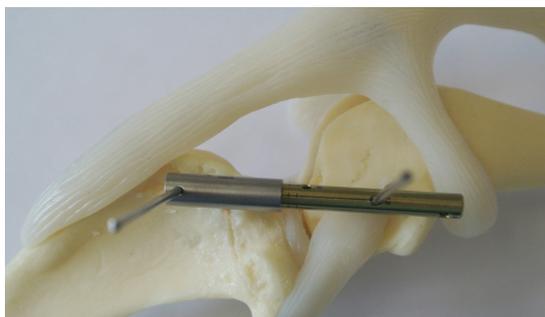
Everost OrthoZip

Everost Isometric Device... Continued



Step 3

Place a small k--wire (.062) in the desired tibial location. Attempt to have this pin be as parallel as possible to the pin in the femoral location.



Step 4

Place the assembled isometric device over the two pins. Be sure to pick the correct hole on the golden arm so that it (the golden arm) doesn't bottom out on the pin going through the silver outer sleeve. Place the isometric device as close as possible to the surface of the bone.



Step 5

Put the limb through range of motion while observing how many millimeters of "stroke" occurs. Although nothing published, it is best to keep this to a minimum, preferably less than 2mm. Once satisfied, remove the pins, drill your starter hole and place the OrthoZip posts.

References

1. Hulse, D., Hyman, W. Beale, B., et al (2010). Determination of isometric points for placement of a lateral suture in treatment of the cranial cruciate ligament deficient stifle. *Vet Comp Orthop Traumatol*, 3/2010, 163--172.
2. Roe, S. Kue, J., Gemma, J. (2008). Isometry of potential suture attachment sites for the cranial cruciate ligament deficient canine stifle. *Vet Comp Orthop Traumatol*, 3/2008, 215--220
3. Christof Fischer, Mitzi Cherras, Vera Grevel, Gerhard Oechtering, Peter Bottcher (2010). Effects of attachment sites and joint angle at the time of lateral suture fixation on tension in the suture for stabilization of the cranial cruciate ligament deficient stifle in dogs. *Veterinary Surgery* 39 (2010) 334--3

Everost Orthozip

ORTHOZIP - TIPS & TRICKS

- Use standard lateral suture approach.
- Place the OrthoZip posts at isometric points (see above references).
- Predrill all holes using the appropriate size drill bit.
 - 3.5mm posts – 2.5mm drill bit
 - 2.7mm posts – 2.0mm drill bit
 - 2.4mm posts – 1.8mm drill bit
- Measure the depth of each hole so the appropriate post length is used.
 - When measuring the Tibial hole add 5mm to the number shown on the depth gauge. The 5mm gives you the 3mm for the post neck and 2mm to have 2 threads outside the bone on the trans cortex side.
 - When measuring the Femoral hole add 3mm to the number shown on the depth gauge. The 3mm is for the post neck. Don't add the other 2mm because you don't want the post to enter the intercondylar notch if that is where the post is aiming.
- Insert the OrthoZip posts so that the bottom of the neck contacts the bone surface. You can further advance the post after OrthoZip is placed if the head seem too prominent.
- The two posts should be parallel or slightly divergent to each other.
- Use a piece of suture, monofilament or ortho wire to pull the OrthoZip under as much soft tissue as possible (mainly the cranialis tibialis muscle). Pull the OrthoZip from the femoral side.
- Make sure the two free strands of the OrthoZip are at the tibial side. Be sure to put the OrthoZip on the Femoral post so that the post is in the middle of the sheath.
- Pull the OrthoZip free ends from the Tibial side once it is over both posts. The ends can be pulled by hand or by using a Kelly Forceps.
- During tensioning be sure to check cranial drawer several times. Tighten until cranial drawer just goes away.
- If over tightened, grab one of the loops with a smooth tool and pull. This will loosen the loop. The loop that needs to be pulled is the one that goes through the sheath.
- Tie a square knot over the tibial post just to keep the ends in one place. Cut the free ends leaving 1--2mm left behind.
- Check range of motion before closing.