

Stifle Stabilization Continued

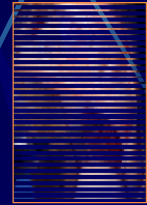


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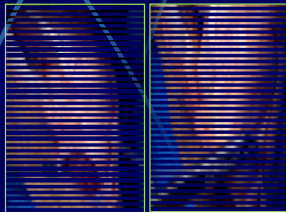
Tibial Tunnel

- Drill the tibial tunnel in an isometric position
 - Ensure the hole is large enough
- 1 cm caudal to patellar tendon attachment is a good approximation
- Pass the needle



Suture Path

- Approximate the path of the suture to determine the point and angle of passage under the patellar tendon
- Pass the suture under the tendon

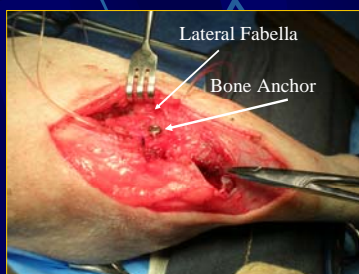


Lateral Fabellotibial suture

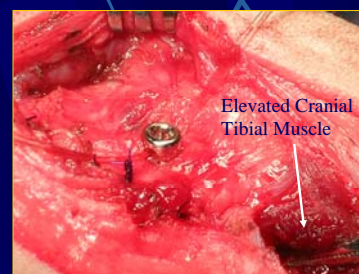
Options for suture anchoring include

- Bone Anchors
 - Surface mount or Subcortical
- Lateral Fabella

Lateral Fabellotibial suture



Lateral Fabellotibial suture



Lateral Fabelotibial suture



Suture Tying

Knotting Method

- Surgeons knot weakens Leader line
- Sliding half-hitch weakened Leader line
- Clamping the first throw of a square knot has no adverse effect

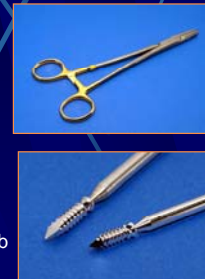
Instrumentation

- Crimper
 - Compatible with 40, 80 and 100 lb systems
 - Double action
 - Slotted crimping surface
- Tensioner
 - Compatible with 40, 80, 100 lb and orthofiber systems
 - Self-retaining



Instrumentation

- Wire twister
 - Holds and drives large needles effectively
 - Carbide jaws
- Bone anchors
 - 2.7 mm: 40 lb
 - 3.5 mm: 80 lb
 - 4.5 mm: double 80 or 100 lb



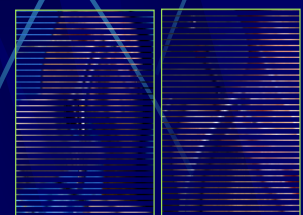
Crimp Application

- Identify which suture ends correspond, and separate the suture ends
- Apply the crimps
 - Primary
 - Secondary (2)



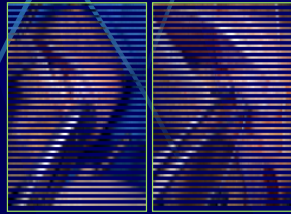
Primary Crimp

- Progressively tension
- Check for cranial drawer
- Crimp primary crimp



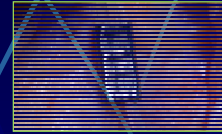
Secondary Crimps

- Crimp the secondary crimps
- Apply the tensioner



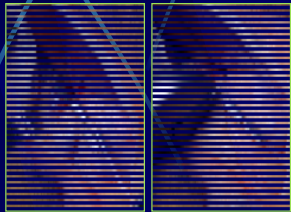
Remove Secondary Crimps

- Crimp pattern
 - 3 crimps, evenly distributed
 - Avoid the ends of the crimp tube
- Cut leaving 3-4 mm of suture



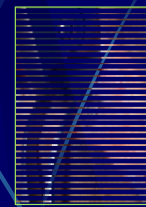
Second Suture

- Apply primary and secondary crimp tubes
- Crimp secondary crimp tubes



Second Suture

- Tension and crimp the primary crimp tube, avoiding the initial suture
- The sutures should be of equal tightness
- The crimp tubes can be staggered to avoid overlap



Crimp Pattern

- Ensure that the crimping device is placed properly on the crimp tube
 - 3 crimps
 - Avoid edges

Figure 1: Right Pattern



Crimp Pattern

Figure 1: Right Pattern



Figure 2: Wrong Pattern



Crimp Pattern

Figure 1: Right Pattern



Figure 3: Wrong Pattern



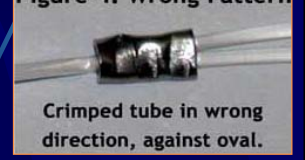
Crimped with tip of tool, created divot

Crimp Pattern

Figure 1: Right Pattern



Figure 4: Wrong Pattern



Crimped tube in wrong direction, against oval.

Lateral suture key points

Sutures loosening

1. Change in path
Soft tissue fatigue, lack of isometry, elongation and stress relaxation of material
2. Change in anchor point
Relaxation of fibrous attachments, tibial hole enlargement
3. Load beyond yield point
Over activity

Lateral Fabelotibial suture

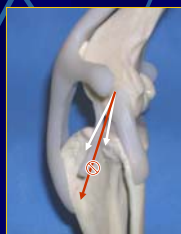
Key point to success

Isometric placement of prosthetic ligament

Proximal attachment – origin of lateral collateral (caudal and distal on lateral femoral condyle)

Distal attachment – proximal tibia (caudal or cranial to LDE tendon)

Isometric Points



Isometric Points



If there is no movement of the suture arms relative to one another, then the suture is likely isometric.

If the suture arms slide relative to one other, then the distance between its origin and insertion is changing

Questions ?

