

SURGICAL TECHNIQUE QUICK REFERENCE

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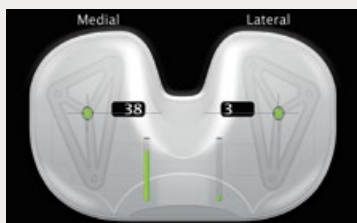
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Assess soft-tissue load references with **joint reduced and capsule closed**. Only address soft-tissues after loads have been assessed in both **extension and flexion (10°-90°)**. After any tissue release, the **leg should be “cycled”** (taken through the range of motion) several times.

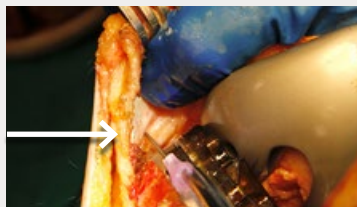
APPROACH TO VARUS KNEE

▶ TIGHT IN EXTENSION - MEDIALY

SENSOR PRESENTATION:



SURGICAL CONSIDERATION:



Evaluate MCL

Palpate fibers of MCL to assess tension. Release **posterior fibers of MCL** (both deep and superficial).

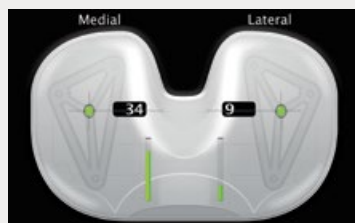


Evaluate Medial Posterior Capsule

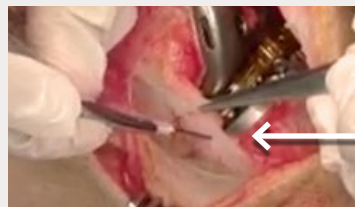
Release medial posterior capsule and/or semimembranosus at tibial attachment site.

▶ TIGHT IN FLEXION - MEDIALY

SENSOR PRESENTATION:



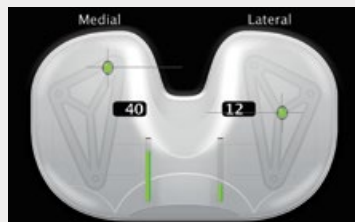
SURGICAL CONSIDERATION:



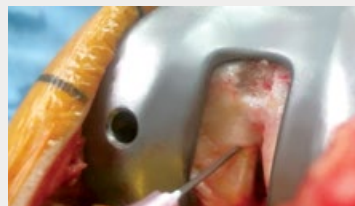
Condition 1. Evaluate MCL

Palpate fibers of MCL to assess tension. Release **anterior fibers of MCL** (both deep and superficial).

SENSOR PRESENTATION:



SURGICAL CONSIDERATION:

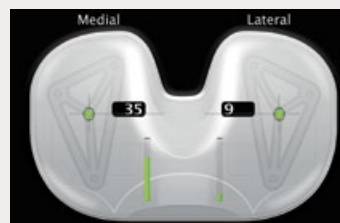


Condition 2. Evaluate PCL

If medial femoral contact point exhibits excessive tension and posterior positioning, release **anterolateral bundle PCL fibers**.

▶ TIGHT IN FLEXION AND EXTENSION - MEDIALY

SENSOR PRESENTATION:



SURGICAL CONSIDERATION:



Condition 1. Loads 20-40 lbs.

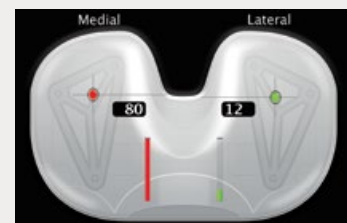
Extension Balancing:

- Posterior MCL fibers released if in tension; loads rechecked.
- Posterior medial capsule checked for tension and released, if needed; loads re-checked.
- If necessary, semimembranosus can be released.

Flexion Balancing:

- Anterior MCL fibers released if in tension; loads rechecked.

SENSOR PRESENTATION:



SURGICAL CONSIDERATION:



Condition 2. Loads > 40 lbs.

If loads beyond 40 lbs. are displayed, consider recutting the tibia plateau **to add additional varus alignment**.



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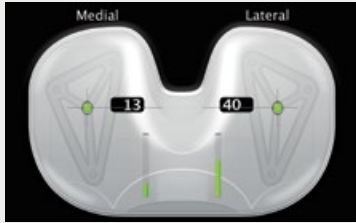
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APPROACH TO VALGUS KNEE

TIGHT IN EXTENSION - LATERALLY

SENSOR PRESENTATION:

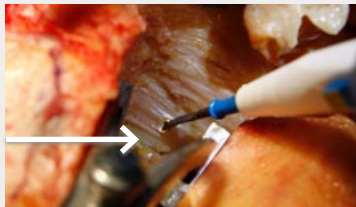


SURGICAL CONSIDERATION:



Evaluate Lateral Posterior Capsule & Arcuate

Palpate the **lateral posterior capsule** and/or the **arcuate ligament** to assess tension; release as necessary.

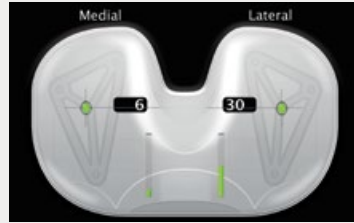


Evaluate IT Band

If lateral posterior capsule/arcuate does not fully address tension, consider releasing tight fibers of the **IT band**.

TIGHT IN FLEXION - LATERALLY

SENSOR PRESENTATION:



SURGICAL CONSIDERATION:

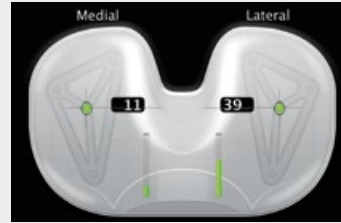


Evaluate Popliteus

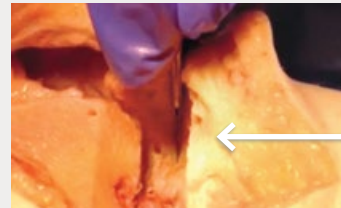
Release tight fibers of the **popliteus tendon**.

TIGHT IN FLEXION AND EXTENSION - LATERALLY

SENSOR PRESENTATION:



SURGICAL CONSIDERATION:



Condition 1. Loads 20-40 lbs.

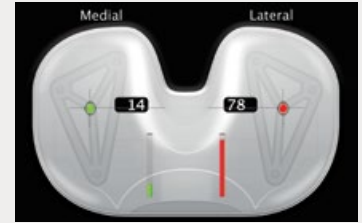
Extension Balancing:

- Release posterior lateral corner; recheck loads.
- Release posterior lateral capsule and arcuate complex; recheck loads.
- Consider releasing tight fibers of IT band, if necessary.

Flexion Balancing:

- If excessive loads are still uncorrected, then popliteus tendon is checked for tension and released.

SENSOR PRESENTATION:



SURGICAL CONSIDERATION:



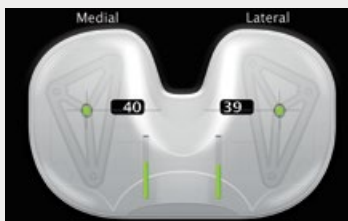
Condition 2. Loads >40 lbs.

If necessary, you may **recut tibial plateau** to add more valgus.

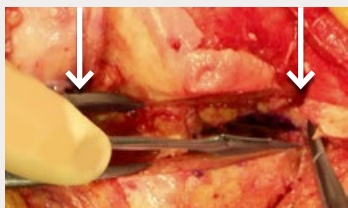
TIGHT EXTENSION GAP

TIGHT ONLY IN EXTENSION - SYMMETRICALLY

SENSOR PRESENTATION:



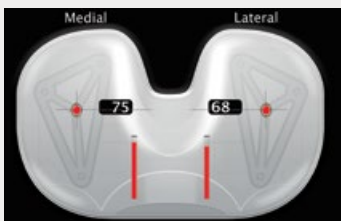
SURGICAL CONSIDERATION:



Condition 1. Loads 20-40 lbs.

Release **posterior capsule**.

SENSOR PRESENTATION:



SURGICAL CONSIDERATION:



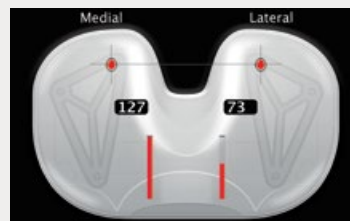
Condition 2. Loads >40 lbs.

If necessary, consider **recutting distal femur**.

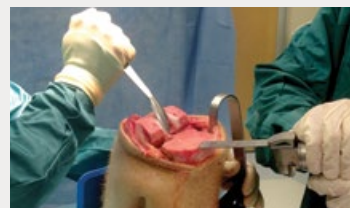
ADVERSE FLEXION GAP

TIGHT ONLY IN FLEXION - SYMMETRICALLY

SENSOR PRESENTATION:



SURGICAL CONSIDERATION:

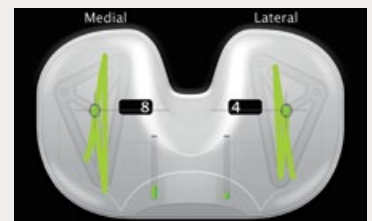


Loads > 40 lbs.

Increase **tibial slope**.

LOOSE AND/OR UNSTABLE FLEXION GAP

SENSOR PRESENTATION:



SURGICAL CONSIDERATION:



Loads < 10 lbs.

Increase thickness of **shim**.