

LATERAL MENISCAL ROOT TEARS: WHICH ONE TO TREAT?

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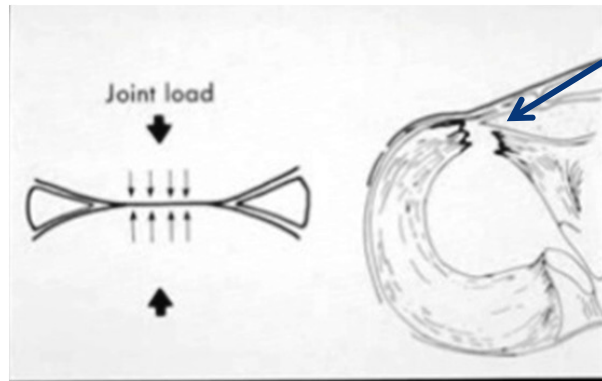
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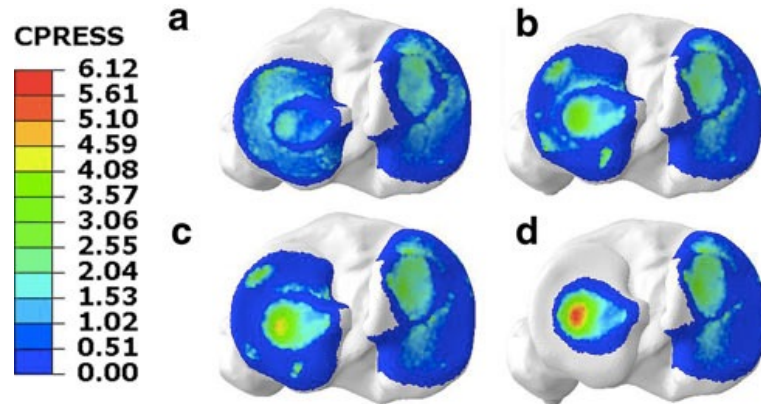




Meniscal root tear

↓
Extrusion
↓

Comparable to a subtotal meniscectomy



Model	Peak contact pressure (in MPa)	
	Lateral tibial cartilage	Medial tibial cartilage
Intact knee	3.09	2.97
PLMRT	3.92	3.28
PLMRT + PMFL-D	5.15	3.32
Lateral total meniscectomy	6.12	3.35

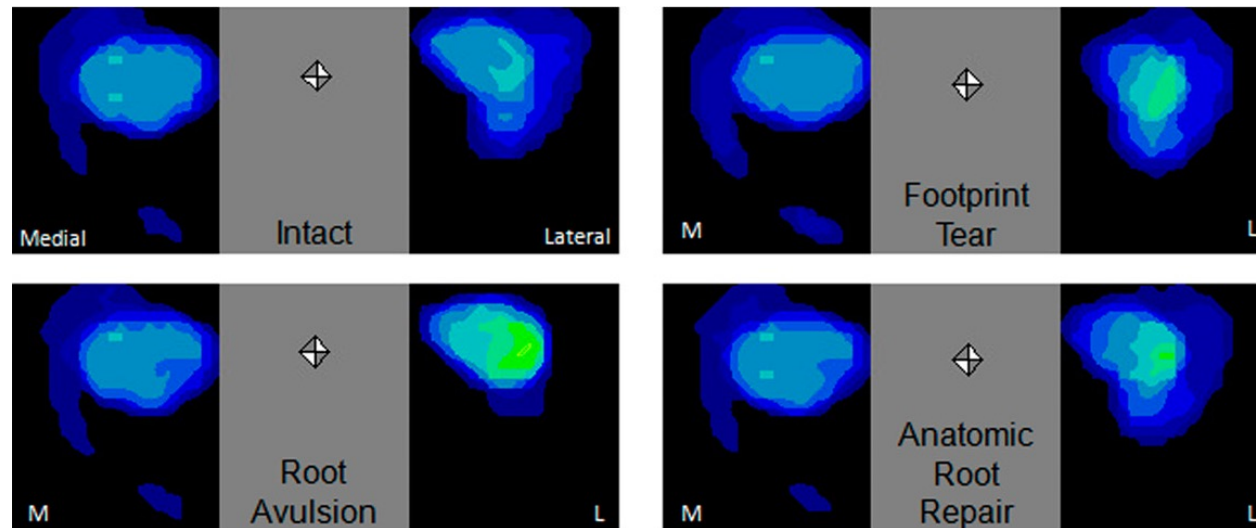
PLMRT a complete radial lateral meniscus posterior root tear, *PMFL-D* PMFL deficiency

Repair is effective, in theory

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Altered Tibiofemoral Contact Mechanics Due to Lateral Meniscus Posterior Horn Root Avulsions and Radial Tears Can Be Restored with in Situ Pull-Out Suture Repairs

Christopher M. LaPrade, BA, Kyle S. Jansson, BS, Grant Dornan, MSc, Sean D. Smith, MSc, Coen A. Wijdicks, PhD, and Robert F. LaPrade, MD, PhD



Lesions of the PLMRT

- Traumatic
- ACL Tear



Concomitant pathology	Total (n = 49)	Medial meniscus root tears (n = 23)	Lateral meniscus root tears (n = 26)	p value
Anterior cruciate ligament tear	29 (59 %)	8 (35 %)	21 (81 %)	0.001*
Posterior cruciate ligament tear	5 (10 %)	3 (13 %)	2 (8 %)	n.s.
Fibular collateral ligament tear	8 (16 %)	3 (13 %)	5 (19 %)	n.s.
Medial collateral ligament tear	4 (8 %)	1 (4 %)	3 (12 %)	n.s.
Chondral defect (Outerbridge grade 2 or greater)	27 (55 %)	17 (74 %)	10 (43 %)	0.021*

Different traumatic lesions

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Appropriate treatment

- Posterior radial tear
- Complete Posterior root tear
- Partial posterior root tear
- Bony avulsion (meniscal ossicle)



Different traumatic lesions

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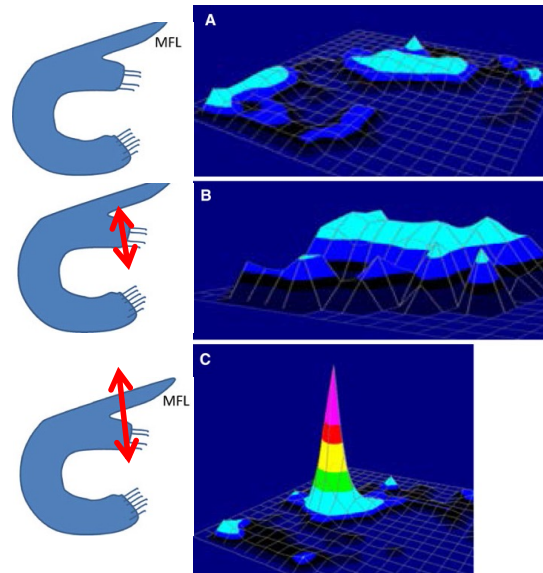
Appropriate treatment

- Posterior radial tear
- Complete Posterior root tear
- Partial posterior root tear
- Bony avulsion (meniscal ossicle)



Partial traumatic root lesions (Type 1)

- Frequency ++
- Underestimated
- Stable if PMFL intact
- Symptoms?



Forkel Arch Orthop trauma surg 2013



Partial traumatic root lesions (Type 1)

Am J Sports Med. 2014 Feb;42(2):327-35. doi: 10.1177/0363546513508374. Epub 2013 Dec 4.

Clinical, Radiological, and Morphological Evaluations of Posterior Horn Tears of the Lateral Meniscus Left in Situ During Anterior Cruciate Ligament Reconstruction

Dhong Won Lee¹, Hyoung Won Jang, Sung Rak Lee, Jung Ho Park, Jeong Ku Ha, Jin Goo Kim

Long-term Evaluation of Posterior Lateral Meniscus Root Tears Left In Situ at the Time of Anterior Cruciate Ligament Reconstruction

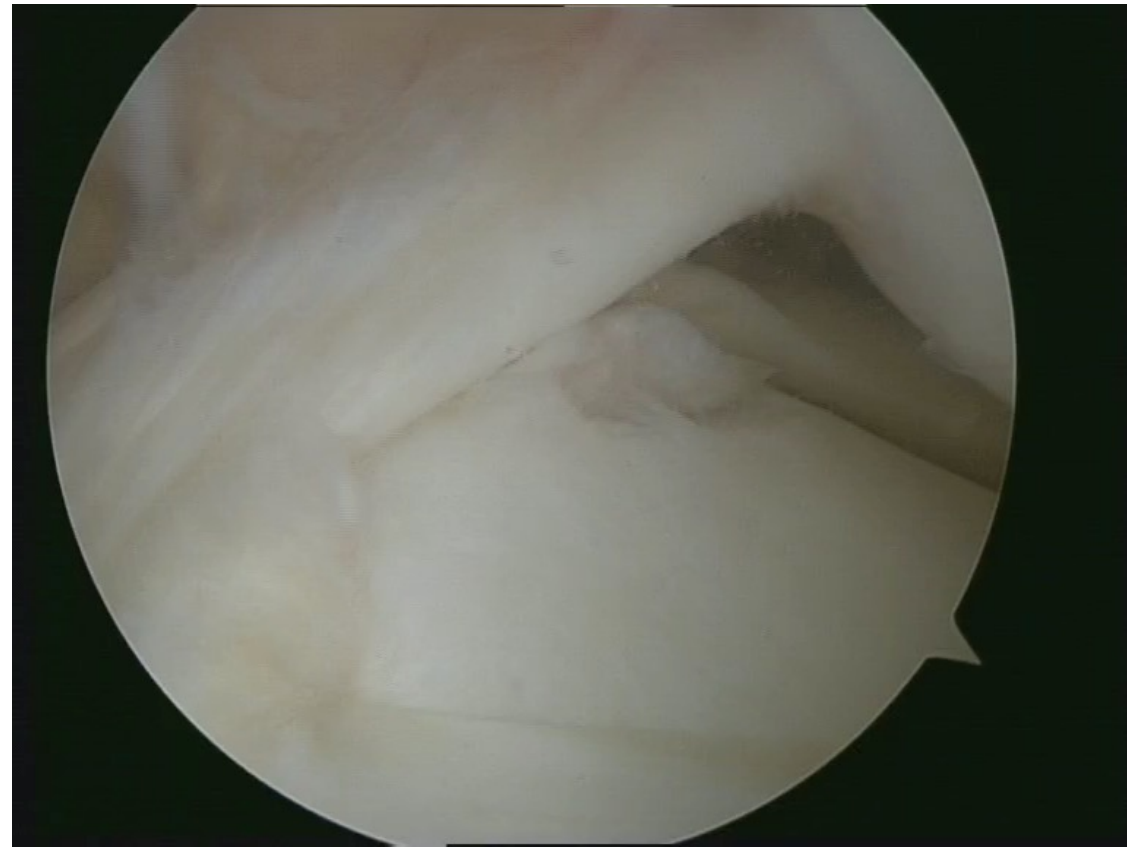
K. Donald Shelbourne, Troy A. Roberson and Tinker Gray
Am J Sports Med 2011 39: 1439 originally published online March 14, 2011
DOI: 10.1177/0363546511398212

Systematic review

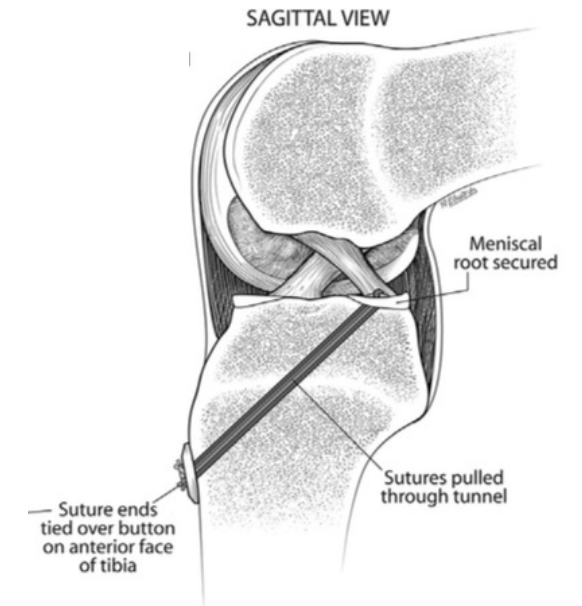
During ACL reconstruction, small asymptomatic meniscal lesions can be left untreated: a systematic review

Pujol N, Beaufils P. *JISAKOS* 2016;0:1–6. doi:10.1136/jisakos-2016-000051 Copyright © 2016 ISAKOS

- Leave it alone
- Don't overtreat your patients+++

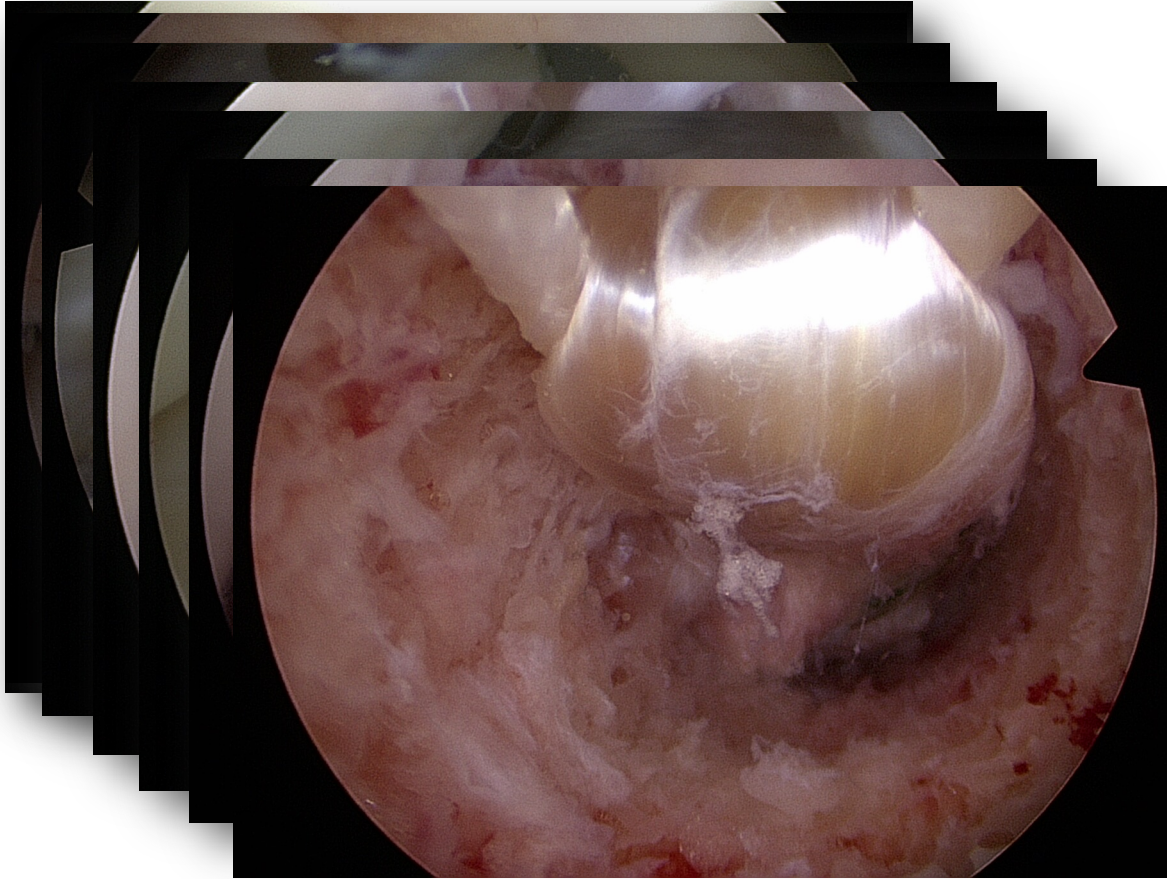
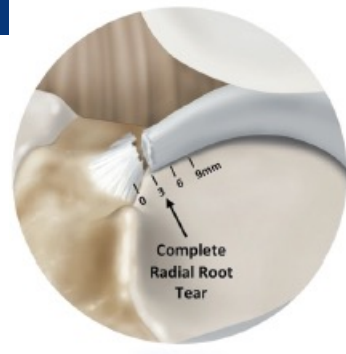


Type 2: Complete PLRT

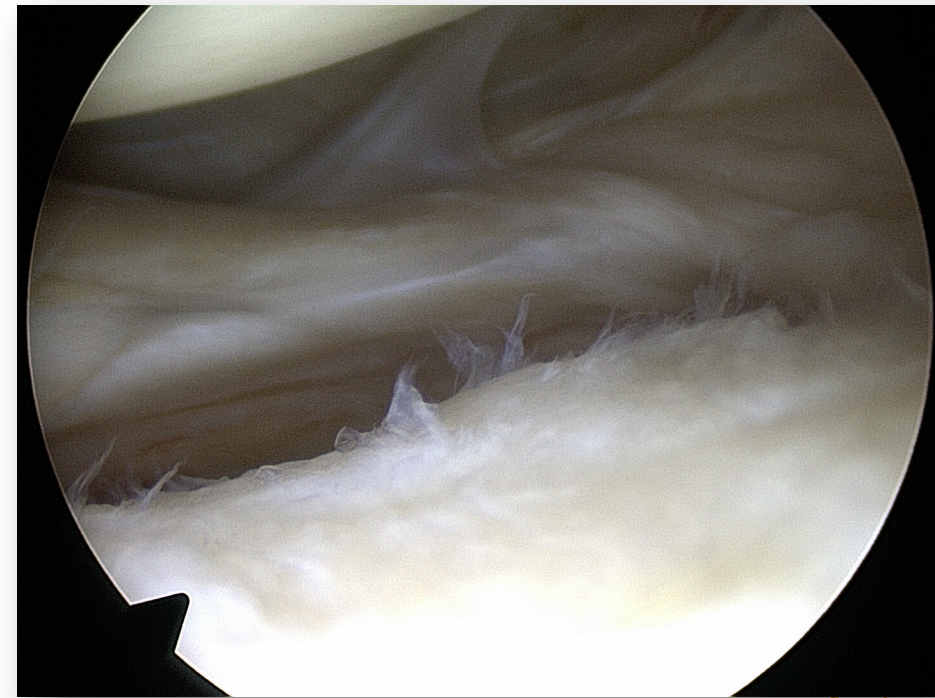


PLRT in conjunction with ACLR

Courtesy J Barth

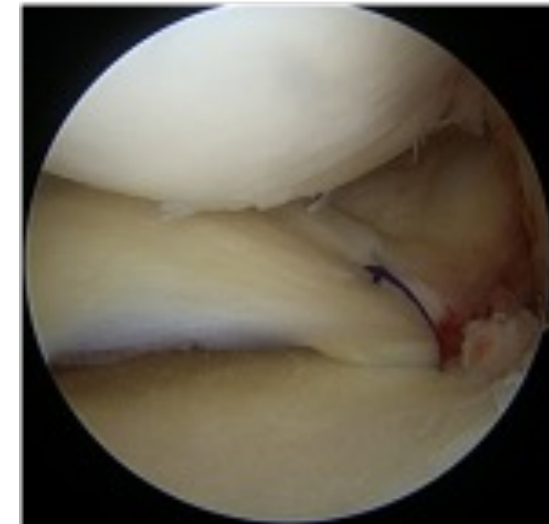


2 TUNNELS +++



Conclusion: Lateral root tears

- Different lesions, different treatments
- Too many publications
- Do not miss, but Do not operate all of them+++++
- If significant lesion: reinsertion/trans tibial technique++
- Be as anatomic as possible
- Good results, long-term FU needed





Gillesphotos.com