

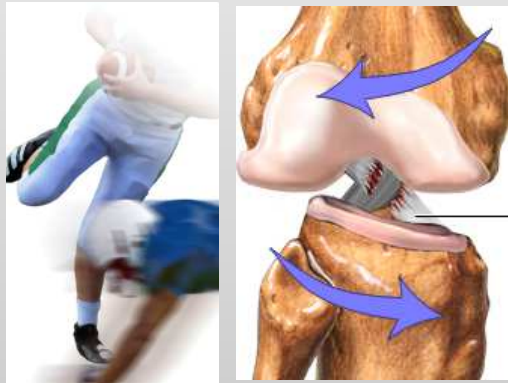
# Time from ACL Tear to Reconstruction In Privately and Publicly Insured Pediatric Patients: Does Public Insurance Lead to Increased Delays and Secondary Injury?

Krishn Khanna M.D., Abhinav Janghala B.A., Nirav Pandya M.D.\*

University of California – San Francisco, UCSF Benioff Children’s Hospital Oakland, Department of Orthopaedic Surgery, Oakland, CA

## Introduction

- The Anterior Cruciate Ligament (ACL) is the primary stabilizer to anterior tibial translation in the knee.<sup>1</sup>
- ACL injuries are becoming increasingly prevalent in the pediatric age group, with the number of reconstructions nearly tripling in the last two decades.<sup>2</sup>



- A delay in diagnosis and treatment of ACL injuries can lead to secondary meniscal and/or chondral damage.<sup>3</sup>
- Access to care for pediatric patients who are not privately insured can be challenging.<sup>4,5</sup>
- The purpose of this study was to analyze whether the insurance status of pediatric patients with ACL injuries impacts the time from injury to diagnosis and treatment.
- Our secondary aim was to analyze whether this delay consequently leads to a difference in the incidence of secondary meniscal and/or chondral injuries.

## Hypothesis

Pediatric and adolescent patients with no insurance or public insurance plans would have longer wait times from injury to surgery, and as a result have an increased incidence of secondary injuries.

## Methods & Materials

- Retrospective review of a consecutive series of pediatric patients with ACL tears
- Treated at a single “safety-net” hospital (UCSF CHO) by a single surgeon\*
- Patients were grouped into those with public or no insurance and those with private insurance.
- The dates of the injury, initial orthopedic evaluation, MRI, and ACL reconstruction were recorded
  - Statistical analysis with Wilcoxon test for continuous variables
- The presence of meniscus or chondral injuries was recorded from the operative report
  - Statistical analysis with Fisher’s exact test for dichotomous variables

## Results

- Patients with private insurance were able to access orthopaedic care and obtain an MRI diagnosis nearly 50% faster after their injury.
- Time from injury to ACL reconstruction surgery was approximately 1 month shorter for privately insured patients.
- Medial meniscal tears and chondral injuries trended towards being more common in publicly insured patients (p=0.11 and p=0.087 respectively).

Patient Characteristics			
	Public Insurance	Private Insurance	
N	102	68	
Median Age	16.0	14.5	
Males	65 (63.7%)	30 (44.1%)	
Females	37 (36.3%)	38 (55.9%)	
Follow Up Times (Days)			
	Public Insurance	Private Insurance	p-value
Median Follow Up	326.5 (210.0, 496.5)	301.5 (154.0, 517.0)	0.49
Median Time From Injury to Orthopaedic Follow Up	30.5 (14.0, 85.5)	16.0 (6.0, 39.0)	0.007
Median Time From Injury to MRI	37.5 (21.0, 114.0)	19.0 (12.0, 44.0)	<0.001
Median Time From Injury to ACL Reconstruction	96.0 (57.0, 156.0)	61.0 (41.0, 106.0)	<0.001

Secondary Injuries and Treatment Choices			
	Public Insurance	Private Insurance	p-value
Presence of Lateral Meniscal Injury	40 (39.6%)	31 (45.6%)	0.53
Presence of Medial Meniscal Injury	13 (12.9%)	3 (4.4%)	0.11
Presence of Chondral Injury	27 (26.7%)	10 (14.7%)	0.087
Underwent Lateral Meniscus Repair	12 (30%)	2 (7%)	0.018
Underwent Medial Meniscus Repair	9 (60%)	2 (67%)	1.00
Underwent Chondroplasty	10 (9.9%)	6 (8.8%)	1.00

## Conclusions

- Time from injury to subspecialty follow-up, MRI diagnosis, and surgical treatment was significantly shorter in privately insured patients.
- The presence of medial meniscal and chondral injuries was trending towards being higher in publicly insured patients.
- Most delays appear to occur due to longer times for public insurance plans to authorize clinic visits, imaging, and surgery.
- We recommend that clinicians examine their own practice pathways to ensure such delays are minimized and stay vigilant when treating patients in an area where public insurance may impede timely treatments of operative conditions.

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Contact:

[Nirav.Pandya@ucsf.edu](mailto:Nirav.Pandya@ucsf.edu)