

Major increase of pediatric ACL reconstructions 2005-2021

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Acknowledgements

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Major Increase in Incidence of Pediatric ACL Reconstructions From 2005 to 2021

A Study From the Norwegian Knee Ligament Register

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Investigation performed at Akershus University Hospital and Oslo Sports Trauma Research Center, Norwegian School of Sports Sciences, Oslo, Norway



No relevant disclosures

Background

- High-risk patients
- No consensus on treatment
- Incidence of ACL injury/ACLR $\uparrow$ *



Aims of study

Incidence of ACLR in Norway over the past 2 decades

Describe

- Trends in surgical details
 - Outcomes

Methods

2005 through 2021 (n=29 264)

Inclusion criterias

- Girls ≤ 14 years (n = 529)
- Boys ≤ 16 years (n = 947)



N = 1484



Methods

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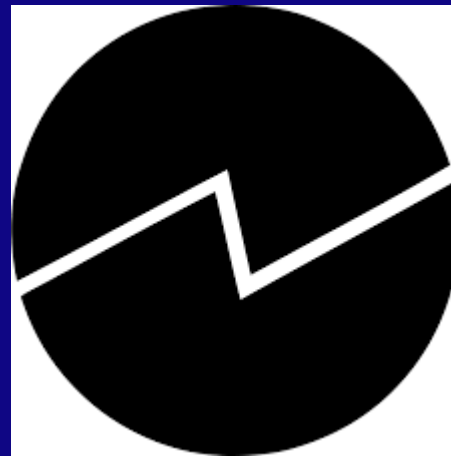


Methods



Yearly incidence

ACLR



Population data

(Statistics Norway)



N = 1484

Methods

Trends

- Meniscal surgery
- Time from injury to surgery
 - Dependent on meniscal surgery?



Results

Age at injury (mean, years)

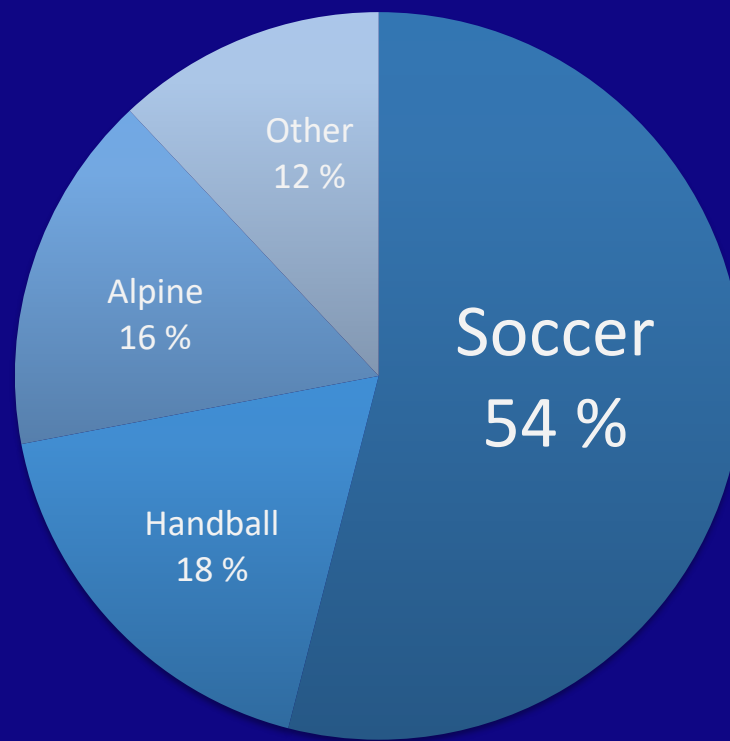
Boys	14.9 y (10-16y)
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Girls	13.5 y (10-14y)
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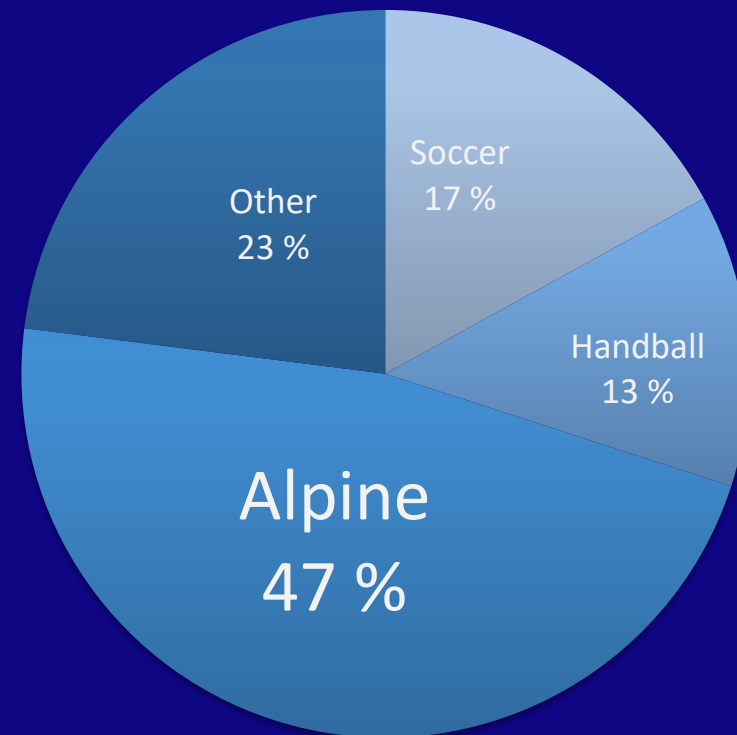
Activity at the time of injury



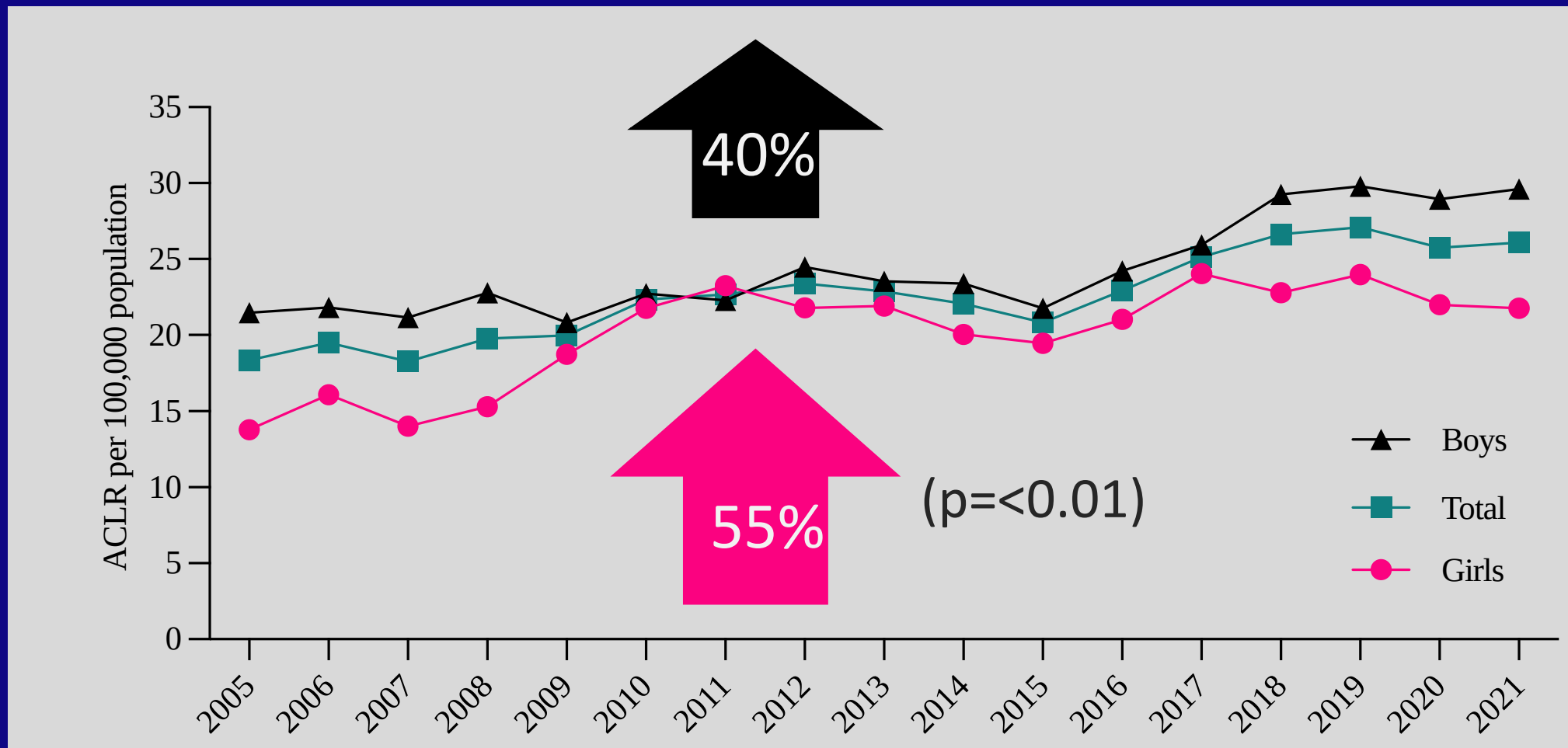
>12 years



≤12 years



Yearly incidence (per 100 000 population)



Concomitant injuries/procedures

Multiligament 2.8%

Cartilage injuries 12%

Meniscal injuries 66%

Concomitant injuries/procedures

Multiligament 2.8%

	2005-2010	2011-2015	2016-2021
Repair (%)	19	27	43
Resection (%)	24	20	12
Combined (%)	2	7	8

Cartilage injuries 12%

Meniscal injuries 66%

Time from injury to surgery (months)

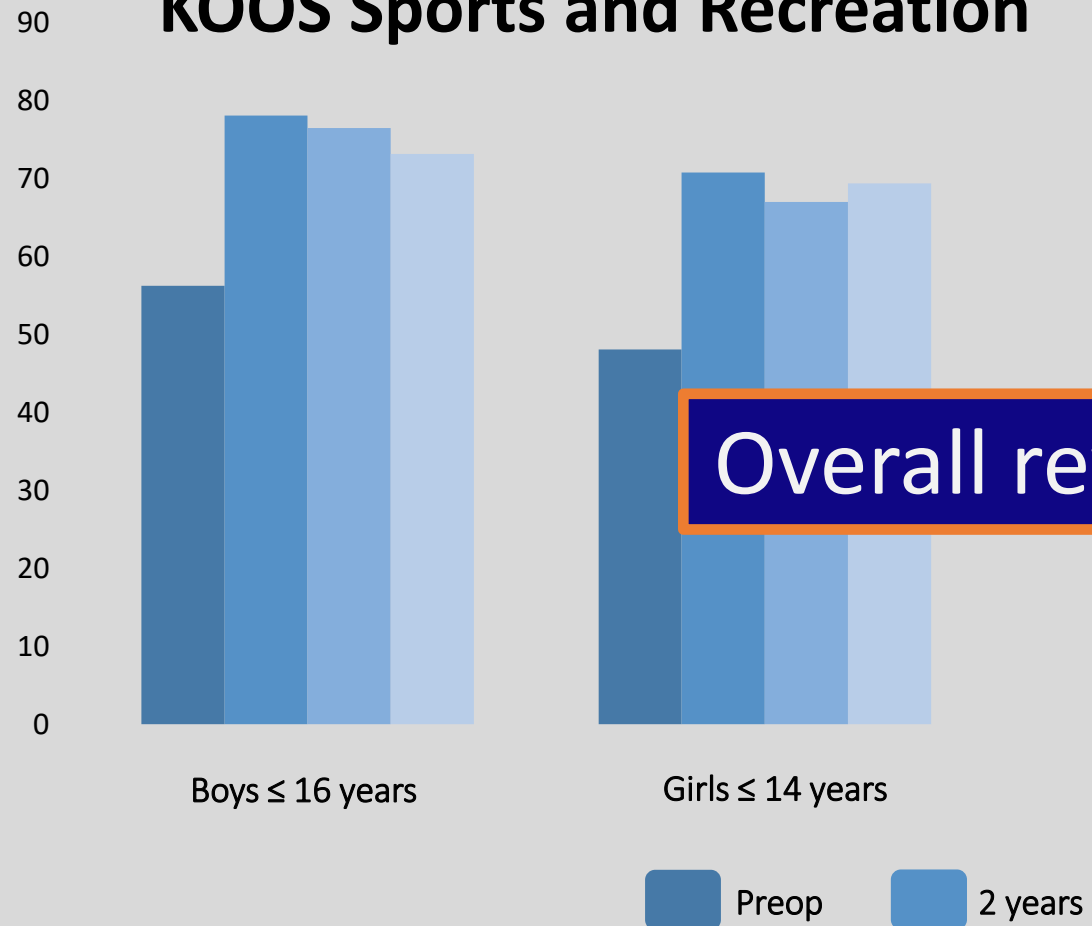
	2005-2010	2011-2015	2016-2021	p
Overall	6.5	6.7	5.4	0.01

Time from injury to surgery (months)

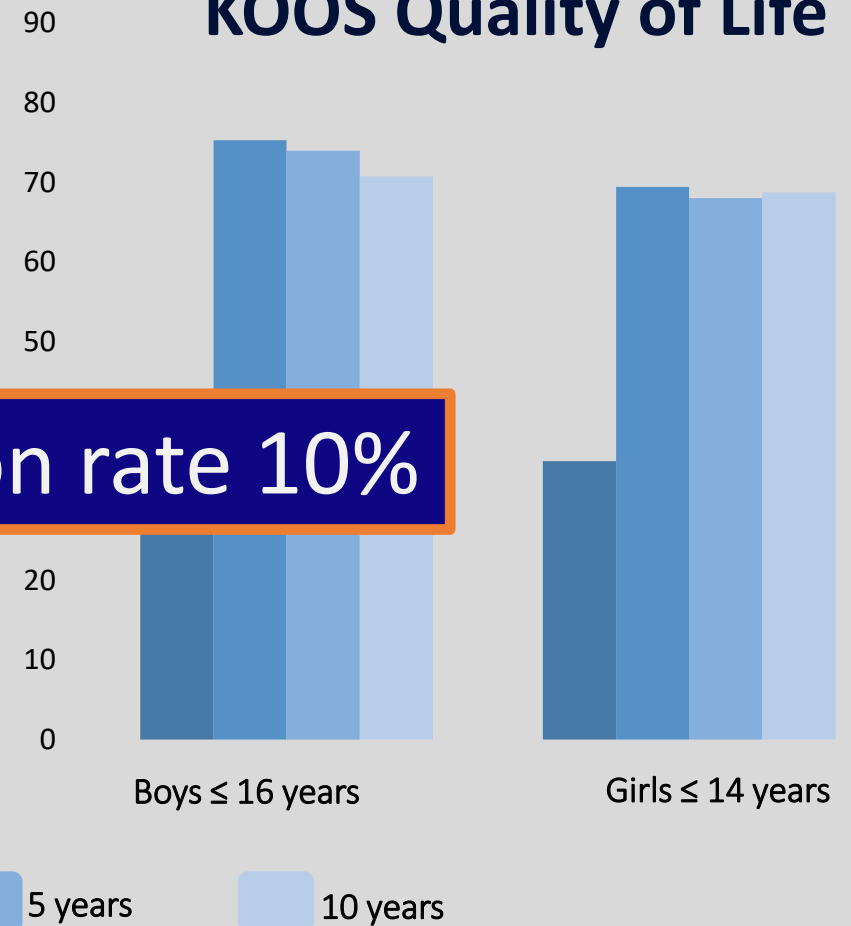
	2005-2010	2011-2015	2016-2021	p
Overall	6.5	6.7	5.4	0.01
+ Meniscal procedure				
with	6.6	7.0	5.7	n.s
without	6.4	6.1	5.3	

Outcomes

KOOS Sports and Recreation



KOOS Quality of Life



Overall revision rate 10%

Discussion

Limitations

KOOS respons rate

No data on skeletal maturity

Strengths

Accurate data on population size

>86% coverage on primary ACLR*

Conclusion

Incidence of adolescent/pediatric ACLR

Proportion of meniscal repairs

Activity at injury is age dependent

Patient outcomes are not optimal

