

# PREVALENCE OF ABNORMALITIES AND NORMAL VARIANTS OF THE ADOLESCENT KNEE ON MRI IN A POPULATION-BASED COHORT OF 3800 KNEES

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# CONFLICTS OF INTEREST

There are no commercial or financial interests to disclose.

# INTRODUCTION

**AIM 1** To establish accurate **prevalences** of abnormalities of the knee on MRI in the general **young adolescent** population, unselected by symptoms, disease or risk factors

**AIM 2** To establish the relationship between abnormalities of the knee on MRI and participant characteristics

# METHODS

## Cohort

Prospective cohort study



Follow-up at 13 years old

## Methods



Questionnaires



## Assessment

**Abnormalities** were assessed in a standardized manner

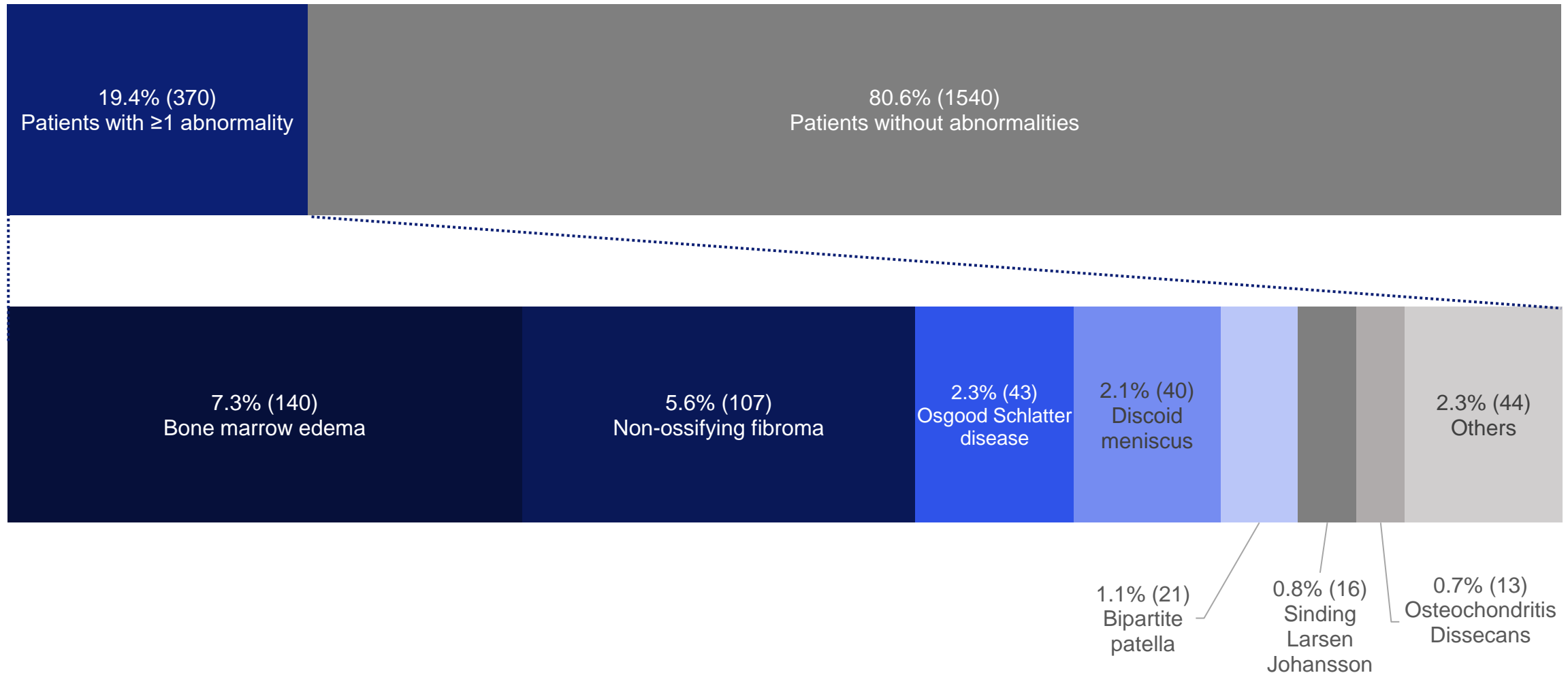
# RESULTS (1/3)

## Baseline characteristics

Participants (n=1910, 3820 knees)	
<i>Median age</i>	13 (13.4-13.7) IQR
<i>Female / male</i>	52% / 48%
<i>Ethnicity</i>	
Dutch	1150 (61.4%)
Other Western	161 (8.6%)
Non-Western	561 (30%)

# RESULTS (2/3)

## Abnormalities and normal variants found (% , n)



# RESULTS (3/3)

## Associations between abnormalities and participant characteristics

Condition-specific results	OR	CI min	CI max
<b>Bone marrow edema</b> occurred more often in <b>boys</b>	2.44	1.69	3.52
<b>Bone marrow edema</b> occurred more often with <b>lower BMI</b>	0.85	0.73	0.98
<b>Discoid meniscus</b> occurred more often in <b>non-Western ethnicity</b>	2.06	1.07	3.96
<b>Discoid meniscus</b> occurred more often with <b>higher BMI</b>	2.34	1.76	3.11
<b>Osgood Schlatter</b> disease occurred more often in <b>boys</b>	4.21	2.01	8.85
<b>Osteochondritis dissecans</b> occurred more often in <b>boys</b>	13.19	1.71	101.58

# CONCLUSION AND IMPLICATION

Abnormalities on MRI of the knees are **common** in adolescents. Physicians who are involved in the treatment of adolescents with knee pain need to be **aware** of this prevalence, so that these children will not be **overtreated** or **misdiagnosed**.



# REFERENCES

None, all information and images displayed came from the current study.

