### Objective
To evaluate the association between isolated short femur and adverse perinatal outcome.

### Methods
Retrospective study of 23423 singleton pregnancies with a 19-22 scan over the period of 2007-2018. All patients had undergone pregnancy dating in our institution and screening for chromosomal abnormalities. Short femur was defined as a femur length < 5th percentile according to Snijders et al reference. Aneuploidy and skeletal dysplasia were excluded. Primary outcome was the risk of small for gestational age (SGA) defined as birth weight < 5th percentile. Adverse perinatal outcome included the risk of cesarean section, stillbirth, 5 min Apgar score < 7 and pH < 7.1

### Results
We found 638 isolated fetal femur < 5th percentile (2.7%). In pregnancies with isolated short femur there were higher rates of SGA (19.3 % vs 6.7 % p<0.001). The positive predictive value of a short femur regarding SGA is 19.2 % OR 3.31(2.70-4.06). The prevalence of adverse perinatal outcome (17.7% vs 9.7% p<0.001) compared with controls was also significant with an OR 2.0 (1.63-2.47)

### Conclusion
Isolated short femur detected in the second trimester scan is associated with low birth weight and adverse perinatal outcome, we should incorporate this finding in the counselling. One out of five patients with short femur will have a SGA fetus.