

certainty) compared to the other limb in people with hip/knee osteoarthritis. As only two studies assessed responses to TMS, very low certainty evidence demonstrated no significant difference between knee osteoarthritis and healthy controls for motor evoked potential, intracortical facilitation, resting motor threshold or short-interval intracortical inhibition.

**Conclusions** Low certainty evidence suggests people with knee osteoarthritis have substantial impairments in voluntary activation of their quadriceps muscle when compared to healthy controls. With moderate certainty we conclude that people with hip and knee osteoarthritis had larger impairments in voluntary activation of the quadriceps in their more painful limb compared to their non-affected/other limb.

## 26 THE NATIONAL PREVALENCE OF PATELLAR DISLOCATION AND TROCHLEA DYSPLASIA: A STUDY FROM THE NATIONWIDE FAROESE KNEE COHORT

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**Introduction** To calculate the prevalence of patellar dislocation (PD) and trochlear dysplasia (TD) in a national cohort in the Faroe Islands.

**Material and Methods** All inhabitants in The Faroe Islands aged 15 to 19 years were invited to answer an online survey. Three cohorts were established: 1) The background cohort consisting of the participants with no prior patellar dislocation, 2) The PD cohort consisting of all participants with prior PD, 3) The clinical PD cohort consisting of participants with prior PD who participated in the clinical and radiological follow-up.

Trochlear dysplasia was defined as one of the following: Dejour type A-D on X-ray, Lateral Trochlear Inclination angle < 11 ° or Trochlear Depth < 3 mm on MRI.

**Results** 3749 persons were contacted and 1637 (44%) completed the survey. 146 reported a prior PD and 100 participated in the clinical PD cohort. The national prevalence of PD was 8.9%. The prevalence of symptomatic TD was 6.8%. The prevalence of TD in the clinical PD cohort was 78%. 77.6% of patients with TD had bilateral TD. Only 27% of patients with bilateral TD had bilateral dislocations.

**Conclusion** The prevalence of PD in the Faroe Islands, a genetically homogenous small country, is markedly higher than reported in other countries and could indicate a genetic influence. The national prevalence of TD and the prevalence of TD in participants with prior PD is high. Most patients with TD exhibited the same pathology in the opposite knee with no clinical symptoms

## 27 MEASUREMENT OF ANTERIOR KNEE LAXITY WITH THE ROLIMETER® CHANGES WITH FLEXION ANGLE BUT NOT WHEN A SHORTENED ROLIMETER® IS USED

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**Introduction** The most widely used instrument to measure anterior tibial is the Rolimeter®. Little is known about how knee flexion in the interval 10-40 degrees affects laxity measures. For smaller children the standard Rolimeter® is too long to fit onto tibia, so we have modified the Rolimeter®, reducing the length by 1/3. The aim of the study was to investigate whether anterior tibial translation measured by the Rolimeter® varies with degree of knee flexion in the interval 10-40 degrees, and with use of a standard or a shortened (“pediatric”) Rolimeter®.

**Materials & Methods** Fourty-eight children and adults with an isolated ACL-rupture had anterior tibial translation measured with the standard Rolimeter® and the “pediatric” Rolimeter® in 10°, 20°, 30° and 40° degrees of flexion by two independent observers.

**Results** The weighted kappa showed moderate agreement between measurements made with the standard Rolimeter® and the “pediatric” version. T-tests demonstrated that anterior tibial laxity was significantly affected by the degree of knee flexion showing higher values with increasing flexion in the range 10°-40°. However, laxity of the injured and the non-injured knee changed with knee flexion to the same extent.

**Conclusions** It is important that repeated measurements of anterior tibial translation are made with the same degree of knee flexion. The variance in laxity dependent on flexion can be compensated for by comparison with the non-injured side. The shortened, “pediatric” Rolimeter® can be used in the daily clinic to supply valid instrumented measurements of ACL stability in smaller children.

## Shoulder Pain

### 28 FACTORS INFLUENCING POSSIBLE OUTCOME IN ROTATOR CUFF RELATED SHOULDER PAIN: A MIXED METHODS STUDY

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**Introduction** Rotator Cuff Related Shoulder Pain (RCRSP) represents a significant individual and societal burden. While