Study protocol - NCT03479775. Muscle Function and Traumatic Knee Injury in Sports. Updated May 15.

Methods

Study design and subjects

A prospective cohort design is being used for the present study comprising approximately 100 (determined by power analysis) female athletes (age 15-19) from Swedish senior high schools who are involved in high risk sports (soccer, handball, floorball and basket). So far, 52 athletes have been tested and included in the study. The athletes have been invited from schools located in the west and south region of Sweden. All athletes are provided written information and sign informed consent prior to data collection. Athletes with illness, which might affect the test results, or an injury to the lower extremity at the time of baseline data collection will be excluded. The project has been approved by the Human Ethics Committee at Gothenburg University, Sweden (929-13, year 2014).

Procedure and baseline assessment

Prior to the study introduction, education of test leaders and reliability testing of the test battery was made during spring 2017. The study started autumn 2017 with assessment of muscle function at baseline for athletes in the west region, instructed and supervised by two test leaders. Before the test session the athlete is informed and tutored about the injury and exposure registration procedure. Measurements takes place in a secluded room at the athletes' school and carried out during the first semester (autumn 2017, 2018, 2019, upcoming 2020). Data relating to sport affiliation, number of years of specific sport training, the number of training hours per week and her/his

training routines, level of competition and participation in other sports, age, body weight and height are also conducted using a questionnaire. After the baseline assessment, the athletes participate in a continuous web based prospective injury registration protocol and be followed for two years.

Time plan

Spring 2017 –Education of test leaders for the west part of Sweden and reliability testing of test

battery

Autumn 2017 – 2020 Baseline assessment

From autumn 2017 to spring 2022 – Injury and exposure data will be collected.

Autumn 2022 - Data analysis and manuscript writing.