

## What are the risk factors in the development of osteoarthritis following ACL reconstruction?

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I would like to comment on the article by J.K. Seon et al. entitled "Osteoarthritis after anterior cruciate ligament reconstruction using a patellar tendon autograft" [4]. The authors investigated the development of osteoarthritis (OA) in patients who had their ACLs reconstructed using patellar tendon autograft. They determined the risk factors of OA to be: patient age over 25 years at the time of the operation, an interval between the injury and reconstruction of greater than six months, and additional meniscal injury [4].

As the follow-up period was long, we would like to know if the patients gained weight during follow-up, because weight increase affects the development of OA independently of the surgical procedure. The importance of increased weight and patient education has been reported previously [5].

The authors found no correlation between anterior instability or persistent subluxation and the development of OA in the long-term follow-up [4]. There are studies with much longer follow-ups that demonstrate that these factors increase the cartilage damage and thus osteoarthritis, making these people candidates for total knee replacement [1].

In a recent study, it was reported that the decrease of patellar tendon stiffness causes a decrease in bone mineral

content and increases OA in patients who had undergone ACL reconstruction using patellar tendon allograft [2].

Although reconstructions using patellar tendon autograft and hamstring autograft gave similar clinical results, patellar tendon autograft is found to pose a greater risk of early development of OA [3].

In conclusion, although additional meniscal lesions, age and late reconstruction were blamed, patellar tendon autograft and an increase in weight are both independent risk factors for osteoarthritis following ACL reconstruction.

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