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International prospective register of systematic reviews

Peroneus longus tendon with or without peroneus brevis tenodesis for primary anterior cruciate ligament reconstruction surgery. A systematic review and meta-analysis of outcomes.

Dong Woon Kim, Konrad Malinowski

Citation
Dong Woon Kim, Konrad Malinowski. Peroneus longus tendon with or without peroneus brevis tenodesis for primary anterior cruciate ligament reconstruction surgery. A systematic review and meta-analysis of outcomes.. PROSPERO 2025 CRD420251169822. Available from https://www.crd.york.ac.uk/PROSPERO/view/CRD420251169822.

REVIEW TITLE AND BASIC DETAILS

Review title
Peroneus longus tendon with or without peroneus brevis tenodesis for primary anterior cruciate ligament reconstruction surgery. A systematic review and meta-analysis of outcomes.

Condition or domain being studied
Knee and ankle outcome measures after primary anterior cruciate ligament reconstruction surgery using peroneus longus tendon autograft.

Rationale for the review
A systematic review and meta-analysis of studies reporting outcomes using the peroneus longus tendon for ACLR –- whether single-arm syntheses or comparison between two methods of harvesting is not available in current literature. Results of this study will add significant value to the knowledge surrounding available graft options for ACLR surgery.

Review objectives
Are the knee function outcomes of peroneus longus tendon autograft comparable to those of other graft options?

Do the ankle function outcomes outweigh the donor-site morbidity and adverse events that arise from other graft harvesting locations?

How does peroneus longus tendon harvesting with and without peroneus brevis tenodesis affect knee and ankle outcomes?

Keywords
Anterior cruciate ligament; Anterior cruciate ligament reconstruction; ACL; ACL reconstruction; Peroneus Longus Tendon Autograft; -Peroneus Longus Tendon

Country
Poland

ELIGIBILITY CRITERIA

Population

Included
Adult patients (over 18 years old).

Excluded
Skeletally-immature, pediatric patients (under 18 years old).

Intervention(s) or exposure(s)

Included
Primary anterior cruciate ligament reconstruction surgery using peroneus longus tendon autograft.

Excluded

- Revision ACLR
- Other autografts (e.g., quadriceps, hamstring, patellar)
- Allografts

Comparator(s) or control(s)

Included
Covariates include mean follow-up duration (months), gender (male, female), and age (years).

Study design
Both randomized and nonrandomized study types will be included.

Included
Systematic review and meta-analysis of randomized clinical trials, prospective cohort studies, retrospective cohort studies, case-control studies, and case series.

Excluded
Review articles, technical notes, case reports, letters to the editor, conference abstracts, biomechanical or anatomical studies, animal or cadaveric studies.

Context
Data from the same subset of patients will be screened for duplicity by name of institution, recruitment center location, duration of recruitment, and authors.

TIMELINE OF THE REVIEW

Date of first submission to PROSPERO
16 October 2025

Review timeline
Start date: 20 October 2025. End date: 31 December 2025.

Date of registration in PROSPERO
27 October 2025

AVAILABILITY OF FULL PROTOCOL

Availability of full protocol
A full protocol has been written and uploaded to PROSPERO. The protocol may be accessed through this link https://www.crd.york.ac.uk/PROSPEROFILES/38e4a8cbca5102a814d8e5d996af3010.pdf.

SEARCHING AND SCREENING

Search for unpublished studies
Only published studies will be sought.

Main bibliographic databases that will be searched
The main databases to be searched are *CENTRAL - Cochrane Central Register of Controlled Trials*, *CLIB - The Cochrane Library*, *Embase.com*, *MEDLINE*, *PubMed* and *Scopus*.

Search language restrictions
There are no language restrictions.

Search date restrictions
There are no search date restrictions.

Other methods of identifying studies
Other studies will be identified by: *contacting authors or experts*, *looking through all the articles that cite the papers included in the review ("snowballing" or forward citation searching)* and *reference list checking (backward citation searching)*.

Link to search strategy
A full search strategy has been uploaded to PROSPERO. The PDF may be accessed through this link https://www.crd.york.ac.uk/PROSPEROFILES/69dd63cb0f6300b63e5569fb7f19357b.pdf.

Selection process
Studies will be screened independently by at least two people (or person/machine combination) with a process to resolve differences.

DATA COLLECTION PROCESS

Data extraction from published articles and reports

Data will be extracted independently by at least two people (or person/machine combination) with a process to resolve differences.

Authors will be asked to provide any required data not available in published reports.

Study risk of bias or quality assessment

Risk of bias will be assessed using: *Cochrane RoB-2*

MINORS Criteria.

Data will be assessed independently by at least two people (or person/machine combination) with a process to resolve differences.

Additional information will be sought from study investigators if required information is unclear or unavailable in the study publications/reports.

Reporting bias assessment

Leave-one out and sensitivity analyses.

Certainty assessment

Sensitivity analyses of low, and high risk of bias studies will be performed.

OUTCOMES TO BE ANALYSED

Main outcomes

- International Knee Documentation Committee (IKDC) Subjective Knee Form
- Lysholm Knee Scoring Scale
- Foot and Ankle Disability Index (FADI)
- American Orthopaedic Foot and Ankle Society (AOFAS) Ankle Hindfoot Scale

Additional outcomes

- Graft failure (clinical, rupture)
- Other knee function outcome measures
- Other ankle donor-site morbidity measures

PLANNED DATA SYNTHESIS

Strategy for data synthesis

Extracted outcome data will be transformed into standardized continuous (i.e., sample size, mean, standard deviation) and dichotomous (i.e., sample size, event) data and synthesized using meta-analysis of random effects into pooled means and prevalence.

Continuous data will be abstracted into means and dichotomous data will undergo inverse-logit transformation prior to inverse-variance weighted pooling.

Between-study variances of means will be calculated using the DerSimonian-Laird method and prevalence using the restricted maximum likelihood (REML) method and back-transformed by logit

transformation.

CURRENT REVIEW STAGE

Stage of the review at this submission

Review stage	Started	Completed
Pilot work	✓	
Formal searching/study identification	✓	
Screening search results against inclusion criteria		
Data extraction or receipt of IPD		
Risk of bias/quality assessment		
Data synthesis		

Review status
The review is currently planned or ongoing.

Publication of review results
Results of the review will be published in English.

REVIEW AFFILIATION, FUNDING AND PEER REVIEW

Review team members
Dr Dong Woon Kim (review guarantor and contact) Jagiellonian University Medical College. Poland.

No conflict of interest declared.

Dr Konrad Malinowski. Artromedical Orthopedic Clinic. Poland.

No conflict of interest declared.

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Artromedical Orthopedic Clinic, Bełchatów, Poland

Funding source
Review has no specific/external funding but is supported by guarantor/review team (non-commercial) institutions.

Peer review
There has been no peer review of this planned review.

ADDITIONAL INFORMATION

Review conflict of interest

Declared individual interests are recorded under team member details.. No additional interests are recorded for this review.

Medical Subject Headings

Ankle; Anterior Cruciate Ligament Reconstruction; Autografts; Humans; Outcome Assessment, Health Care; Tendons; Tenodesis

SIMILAR REVIEWS

Check for similar records already in PROSPERO

PROSPERO identified a number of existing PROSPERO records that were similar to this one (last check made on 16 October 2025). These are shown below along with the reasons given by that the review team for the reviews being different and/or proceeding.

- Comparison of functional outcomes after anterior cruciate ligament reconstruction with peroneus longus tendon versus hamstring tendon autograft: a systematic review and meta-analysis [published 28 October 2023] [CRD42023473160]. The review was judged **not to be similar**
- Peroneus Longus Tendon Autograft for Anterior Cruciate Ligament Reconstruction: A Systematic Review of Clinical Results and Complications [published 5 July 2020] [CRD42020179551]. The review was judged **not to be similar**
- Ankle Function and Rehabilitation Considerations After Peroneus Longus T[illegible]on Harvest for Ankle and Knee Ligament Reconstruction: A Systematic Review and meta-analysis [published 29 September 2025] [CRD420251079078]. The review was judged **not to be similar**
- A comparison of the clinical efficacy of the anterior cruciate ligament reconstruction with autologous peroneus longus tendon and hamstring tendon: a meta-analysis [published 31 October 2024] [CRD42024601888]. The review was judged **not to be similar**
- Clinical and functional outcomes of Peroneus Longus Tendon graft in Anterior Cruciate Ligament Reconstruction: A single-arm meta-analysis [published 16 August 2025] [CRD420251127745]. The review was judged **not to be similar**

PROSPERO version history

- Version 1.0, published 27 Oct 2025

Disclaimer

Any enquiries about the record should be referred to the named review contact