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The rectus femoris tendon as an autograft for knee ligament reconstruction: protocol for a scoping review

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ADMINISTRATIVE INFORMATION

Support - No external funding was received.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 September 2026 and was last updated on 30 September 2026.

INTRODUCTION

Review question / Objective To systematically scope the existing literature on the use of the rectus femoris (RF) tendon as an autograft for knee ligament reconstruction.

Condition being studied Need for knee ligament reconstruction in which the rectus femoris tendon, under any of its reported names (rectus femoris tendon, superficial/central quadriceps tendon graft), is used as an autograft source.

METHODS

Search strategy Search on PubMed/MEDLINE, Cochrane Library, and Scopus. Google Scholar and the reference lists of the included studies will be also consulted as additional sources.

Participant or population Patients of any age and sex undergoing knee ligament reconstruction with the rectus femoris tendon (under any reported

name) as an autograft. Cadaveric specimens and biomechanical testing models in which the RF tendon is harvested or mechanically tested as a candidate graft.

Intervention Surgical use of the rectus femoris tendon as an autograft, in any harvesting technique or graft configuration, for any knee ligament reconstruction.

Comparator Not applicable.

Study designs to be included All designs: observational and interventional studies, cadaveric studies, biomechanical studies, technical notes, video articles, editorials, and narrative/systematic reviews. No exclusion for case reports or case series, given the emerging nature of the field, in which these designs could constitute the majority of currently available evidence.

Eligibility criteria The review will include all study designs (clinical, cadaveric, biomechanical, editorials, narrative/systematic reviews) or

technical notes that describe the rectus femoris tendon, isolated as the superficial/anterior layer of the quadriceps tendon, as an autograft for knee ligament reconstruction. No restriction on language or year of publication.

The review will exclude: studies on RF muscle/tendon injuries unrelated to surgical harvest; studies on full-thickness or otherwise non-isolated quadriceps tendon grafts that do not distinguish the RF/superficial layer as a separate structure (unless directly compared against an RF-isolated cohort); conference abstracts; commentaries.

Information sources PubMed/MEDLINE, Cochrane Library, Scopus. Supplementary sources: Google Scholar, manual cross-referencing of the included studies.

Main outcome(s) Not strictly applicable. Main data categories to be mapped: surgical indications, type of reconstruction, harvesting technique characteristics, categories of clinical outcomes reported.

Quality assessment / Risk of bias analysis Quality assessment and risk of bias analysis is not planned at this stage.

Strategy of data synthesis Narrative synthesis, supported by summary tables and graphical representations. No quantitative synthesis (meta-analysis) is planned, consistent with the scoping nature of the work. Reporting will follow the PRISMA-ScR Extension for Scoping Reviews 2018 checklist, including a PRISMA-ScR flow diagram documenting records identified, duplicates removed, records screened, full texts assessed, and studies included, with reasons for full-text exclusion recorded and reported.

Subgroup analysis Not applicable.

Sensitivity analysis Not applicable.

Language restriction No language restriction.

Country(ies) involved Romania, Italy, France.

Keywords Rectus femoris; superficial quadriceps tendon; knee ligament reconstruction; autograft; scoping review.

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