RAPID RESEARCH

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November 2023

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Achilles Rupture

- Functional Rehab for Acute Achilles Tendon Rupture
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- Operative vs. Non-operative Treatment of Achilles Tendon Ruptures

FUNCTIONAL REHAB FOR ACUTE ACHILLES TENDON RUPTURE

NOVEMBER 2023

Click for Full Text (Zellers et al. 2019)

This study defined early functional rehabilitation (including when it is initiated and what it entails) when used to treat Achilles tendon rupture and to identify outcome measures for evaluating the effect of treatment

KEY FINDINGS

174 studies included, 9098 participants.

Early Functional Rehabilitation Incorporated:
Weight-bearing (95%) **Initiated 1st week*
Range of motion (73%) **Initiated 2nd week*
Isometric/strengthening exercises (50%). **Initiated 2nd week*

Initiation of exercises varied based on whether treatment was nonsurgical or simple or augmented surgical repair

Functional outcomes included in 130 studies:
Ankle range of motion
Strength
Patient-reported outcomes
Survey-based functional outcomes
Tendon properties

MAIN TAKEAWAYS

Early functional rehabilitation includes weight-bearing and a variety of exercise-based interventions initiated within the first 2 weeks after acute Achilles tendon rupture/repair.

A variety of outcome measures are used to assess patient response to treatment after Achilles tendon rupture. Broadly, these measures can be described in 2 groups: population-specific outcomes and general outcomes.

Because early functional rehabilitation has lacked a standardized definition, interventions and outcome measures are highly variable.

NOVEMBER 2023

REHAB FOLLOWING OPERATIVE TREATMENT OF ACUTE ACHILLES TENDON RUPTURES

Click for Full Text (Massen et al. 2023)

This study compared re-rupture rates, complication rates, functional outcomes, as well as return to work (RTW)/sport (RTS) among different rehabilitation protocols following operative treatment of acute Achilles tendon ruptures.

KEY FINDINGS

20 RCTs with 1007 patients included.

Outcome Parameters:

Re-ruptures
Complications
Return to Work (RTW)
Return to Sport (RTS)

Findings:

Re-ruptures overall occurred in 2.7%
Major complications occurred in 2.6%
Minor complications occurred in 11.8%

Overall favorable results for group 1 (Weight-Bearing+Mobilization).

MAIN TAKEAWAYS

This systematic review and meta-analysis proved early functional rehabilitation protocols with early ankle M and WB following surgical repair of acute Achilles tendon ruptures to be safe.

It appears these protocols may allow for a quicker RTW and RTS.

Whether they also result in superior functional outcomes remains a matter of debate.

Consequently, the best evidence rehabilitation protocol for surgically treated Achilles tendon ruptures remains the standard. Find it here:

https://doi.org/10.1016/j. injury.2014.06.022) 15. Gould HP, Bano JM, Akman JL & Fillar AL. P

OPERATIVE VS. NON-OPERATIVE TREATMENT OF ACHILLES TENDON RUPTURES

OCTOBER 2023

Click for Full Text (Ochen et al. 2019)

This systematic review compared re-rupture rate, complication rate, and functional outcome after operative versus nonoperative treatment of Achilles tendon ruptures

KEY FINDINGS

29 studies were included.
10 RCTs (n=944) & 19 observational studies (n=14,918).

Re-ruptures:
Operative treatment (2.3%)
Nonoperative treatment (3.9%) **-** *[risk difference 1.6%]*

Complication Rate:
Operative treatment (4.9%) *2.8% Attributed to infection
Nonoperative treatment (1.6%) **-** *[risk difference 3.3%]*

Similar re-rupture rate for both early and late full weight bearing following operative treatment.

No significant difference in re-rupture rate for operative vs non-operative treatment with accelerated functional rehabilitation with early ROM.

MAIN TAKEAWAYS

This meta-analysis shows that operative treatment of Achilles tendon ruptures reduces the risk of re-rupture compared with nonoperative treatment.

However, re-rupture rates are low and differences between treatment groups are small (risk difference 1.6%).

Operative treatment results in a higher risk of other complications (risk difference 3.3%).

The final decision on the management of acute Achilles tendon ruptures should be based on patient specific factors and shared decision making.

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