

Hamstring Eccentric Exercise vs Normal warm-up training

Patient or population: Youth and Adults

Settings: Hamstring Eccentric Exercise compared to normal warm-up training in injury prevention

Intervention: Hamstring Eccentric Exercise

Comparison: Normal warm-up training

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk	Corresponding risk			
	Normal warm-up training	Hamstring Eccentric Exercise			
Lower Extremity Follow-up: 10-52 weeks	Study population		RR 0.72 (0.60 to 0.85)	14721 (15 studies)	⊕ ⊕ ⊕ ⊕ low ^{1,2,3}
	232 per 1000	167 per 1000 (139 to 197)			
	Moderate				
Hamstring Injury Follow-up: 10-52 weeks	Study population		RR 0.54 (0.38 to 0.77)	6797 (13 studies)	⊕ ⊕ ⊕ ⊕ moderate ^{1,3,4}
	67 per 1000	36 per 1000 (26 to 52)			
	Moderate				
Hip/Groin Injury Follow-up: 10-52 weeks	Study population		RR 0.73 (0.58 to 0.91)	10315 (10 studies)	⊕ ⊕ ⊕ ⊕ high ^{1,3}
	37 per 1000	27 per 1000 (21 to 33)			
	Moderate				
Knee Injury Follow-up: 10-52 weeks	Study population		RR 0.66 (0.52 to 0.84)	13709 (17 studies)	⊕ ⊕ ⊕ ⊕ moderate ^{1,3,4}
	73 per 1000	48 per 1000 (38 to 62)			
	Moderate				
Ankle Injury Follow-up: 10-52 weeks	Study population		RR 0.78 (0.65 to 0.93)	16365 (16 studies)	⊕ ⊕ ⊕ ⊕ high ^{1,3}
	75 per 1000	59 per 1000 (49 to 70)			
	Moderate				

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval; **RR:** Risk ratio;

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ There was no blinding for participants and personnel in some included studies

² There was high heterogeneity between studies $I^2 = 75\%$

³ Study demonstrated significant intervention efficacy and consistent results

⁴ There was heterogeneity between studies $I^2 = 50\%$ and $I^2 = 75\%$