

DO FOOTWEAR OR INSOLES REDUCE PATELLOFEMORAL JOINT LOADS?

Systematic review and meta-analysis



What we did

Review of 33 studies with 578 participants investigating the effect of footwear or insoles on patellofemoral joint loads during gait



Participants had to be either **healthy** or diagnosed with **patellofemoral pain** or **patellofemoral osteoarthritis**



Patellofemoral joint loads quantified by peak **patellofemoral joint pressure**, **force** or **knee flexion moment** during stance

What we found

Medial support insoles

Do not reduce PFJ loads during walking or running

Walking SMD (95% CI) = -0.08 (-0.42 to 0.27), running SMD (95% CI) = 0.11 (-0.17 to 0.39)



Minimalist shoes

Slightly reduce PFJ loads during running only

Running SMD (95%CI) = -0.40 (-0.68 to -0.11)



Rocker shoes

Do not reduce PFJ loads during walking and running

Walking and running SMD (95% CI) = 0.37 (-0.06 to 0.79)



What we concluded

Clinicians may recommend minimalist footwear to reduce patellofemoral joint loads during running

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