

Fig. S1. Gastrocnemius medialis (GM) and Soleus (SOL) experimental EMG data (solid) and simulated activation (dashed) in mid-/forefoot strikers (FF; GM: $n = 9$; SOL $n = 8$) and rearfoot strikers (RF; GM = 9; SOL = 8). Shaded area represent standard deviation.

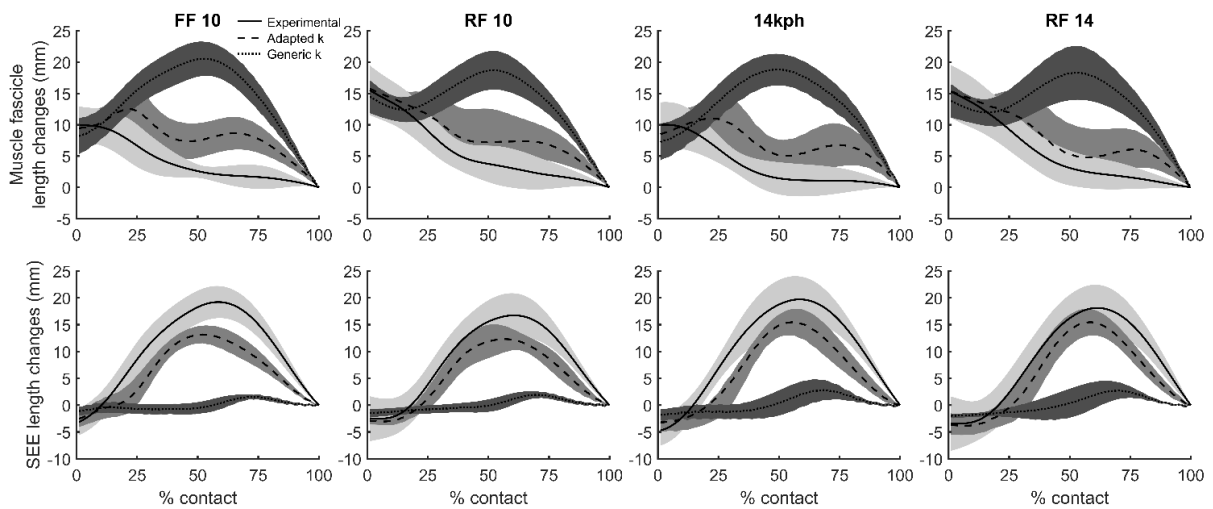


Fig. S2. GM muscle fascicle and tendinous tissue (SEE) length changes during running in mid-/forefoot strikers (FF; $n = 10$) and rearfoot strikers (RF; $n = 9$). Experimental ultrasound data (solid), adapted simulation data (dashed) and generic simulation data (dotted).

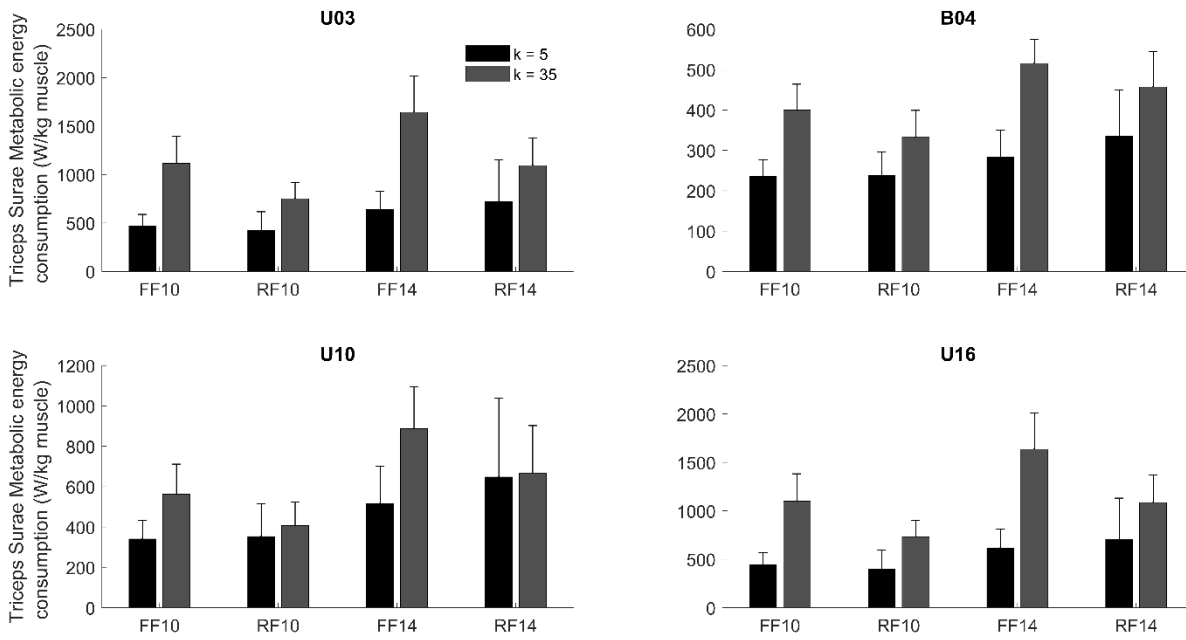


Fig. S3. Estimated Triceps Surae muscle metabolic energy consumption when an adapted normalized Achilles tendon stiffness was used ($k = 5$; black) and when the generic normalized tendon stiffness was used ($k = 35$; grey) in mid-/forefoot strikers (FF; $n = 10$) and rearfoot strikers (RF; $n = 9$) at 10 and 14 km/h.

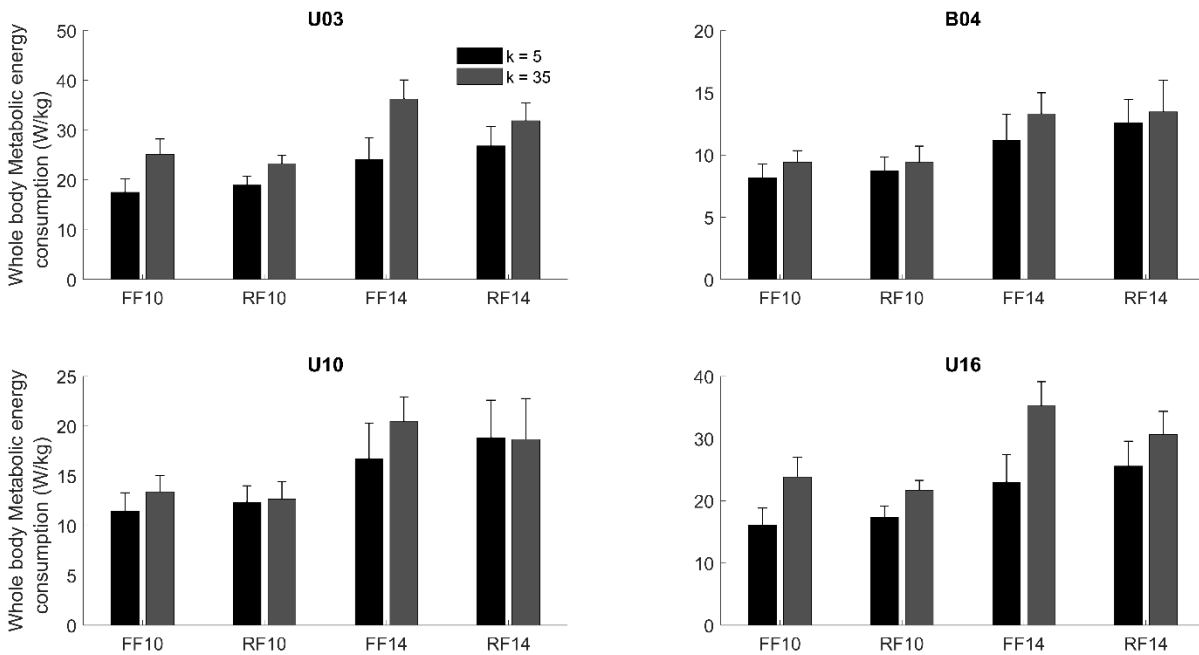


Fig. S4. Estimated whole body metabolic energy consumption when an adapted normalized Achilles tendon stiffness was used ($k = 5$; black) and when the generic normalized tendon stiffness was used ($k = 35$; grey) in mid-/forefoot strikers (FF; $n = 10$) and rearfoot strikers (RF; $n = 9$) at 10 and 14 km/h.