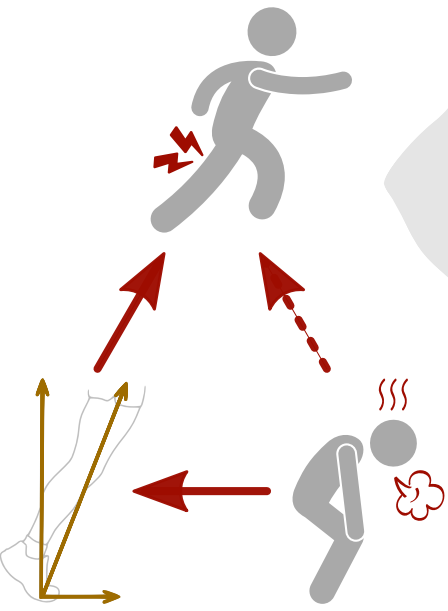
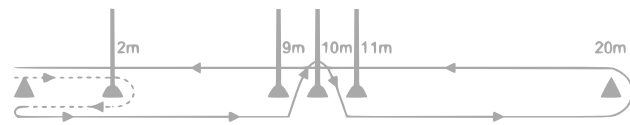


Fatigue on sprint acceleration mechanics: a connection with hamstring injury



22.7 ± 1.3 years
179.3 ± 5.5 cm
75.4 ± 4.6 kg

Soccer-specific Aerobic Field Test (SAFT90)



50m maximal sprint

before, every each 15' during and after SAFT90

force- & power-velocity relationships
mechanical effectiveness
(Samozino et al. 2016)

Maniar et al. (2016)
Croisier et al. (2008)
van Dyk et al. (2016)
Timmins et al. (2015)
Yeung et al. (2009)
Bourne et al. (2015)
Opar et al. (2015)
[...]

- τ : -18% (3%/9%/88% likely; -0.75 [-1.79/0.29] moderate)
- F_0 : -10% (4%/18%/78% likely; -0.46 [-1.26/0.33] small)
- V_{max} : -10% (0%/0%/100% almost certain; -1.57 [-2.21/-0.93] large)
- V_0 : -11% (0%/0%/100% almost certain; -1.42 [-2.09/-0.76] large)
- RF_0 : -10% (6%/12%/82% likely; -0.67 [-1.82/0.49] moderate)
- GRF: -3% (5%/21%/73% unclear; -0.41 [-1.19/0.37] small)



before vs after SAFT90

- fatigue impacts particularly the **hip extensors**
- GRF **reduced** by the fatigue
- **first time: measurement** of the strength production capabilities of hip extensors **during the sprint** responsible for the greatest number of **hamstring injuries** in soccer

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