

# Stretching Pros and Cons Picture This



## ACUTE EFFECTS OF STATIC STRETCHING ON MUSCLE STRENGTH & POWER

An attempt to clarify previous caveats

Over the last two decades, static-stretching has been considered harmful to subsequent strength & power performances. But recent evidence suggests that:

### SHORT-DURATION STATIC-STRETCHING

(≤60s per-muscle group)



**1** Trivially impairs strength & power activities ( $\Delta 1-2\%$ ) when performed alone or within a full warm-up routine

**2** May even reduce the injury risk during high-intensity activities (e.g., sprinting & change of direction) when included in a full warm-up routine

**3** Doesn't affect neuromuscular activation & musculotendinous stiffness



# VS

### LONGER-DURATIONS STATIC-STRETCHING

(>60s per-muscle group)

**1** Appear to induce substantial declines in strength & power performances ( $\Delta 4.0-7.5\%$ )



**2** May impair neuromuscular activation & musculotendinous stiffness



## CONCLUSIONS

**1** Short-duration static-stretching should be included during warm-up before recreational sports activities

**2** However, it has to be applied with caution in elite athletes, due to its negligible but still prevalent negative effects on subsequent strength & power performances, which could have an impact on performance during competition

