Comparison of spatiotemporal measures of gait in soft versus hard soled footwear in children

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**Aim:**
To determine the difference in spatiotemporal measures of gait in young children during walking and running in soft and hard soled footwear
Methods
GAITrite walkway 4.3m

- 47 children recruited (2, 3 and 4 years)
- Anthropometric data
- Condition order randomised
- Linear regression
- Barefoot: walking and running
- Soft soled (boot, sandal, runner)
- Hard soled (boot, sandal, runner)
- Variables (Cadence, Step time, Swing %, Stance %, Double support, Toe in/out)
Results: Soft Vs Hard Soled Footwear

Walking

Soft Sandals
Stride length ↑ (p<0.05)

Running

Minimal **clinically significant** differences in gait parameters
Guide clinician and industry recommendations
Consider comfort levels for child
Unknown pressure changes (distribution)