

# Referent body weight values in over ground walking, over ground jogging, treadmill jogging, and elliptical exercise – no conflict of interests

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## OBJECTIVES

- Evaluate average percentage body weight (APBW) values and weight-bearing distribution percentages (WBDP) between four common sports activities in a referent adult population
- Suggest clinical implications

## PARTICIPANTS

**\*Seventy-five asymptomatic volunteers**

- Mean age = 33.5 (19-72) years  
SD=15.1
- Mean weight (kg) = 70.7 (43-113)  
SD=14.1

## INTERVENTIONS

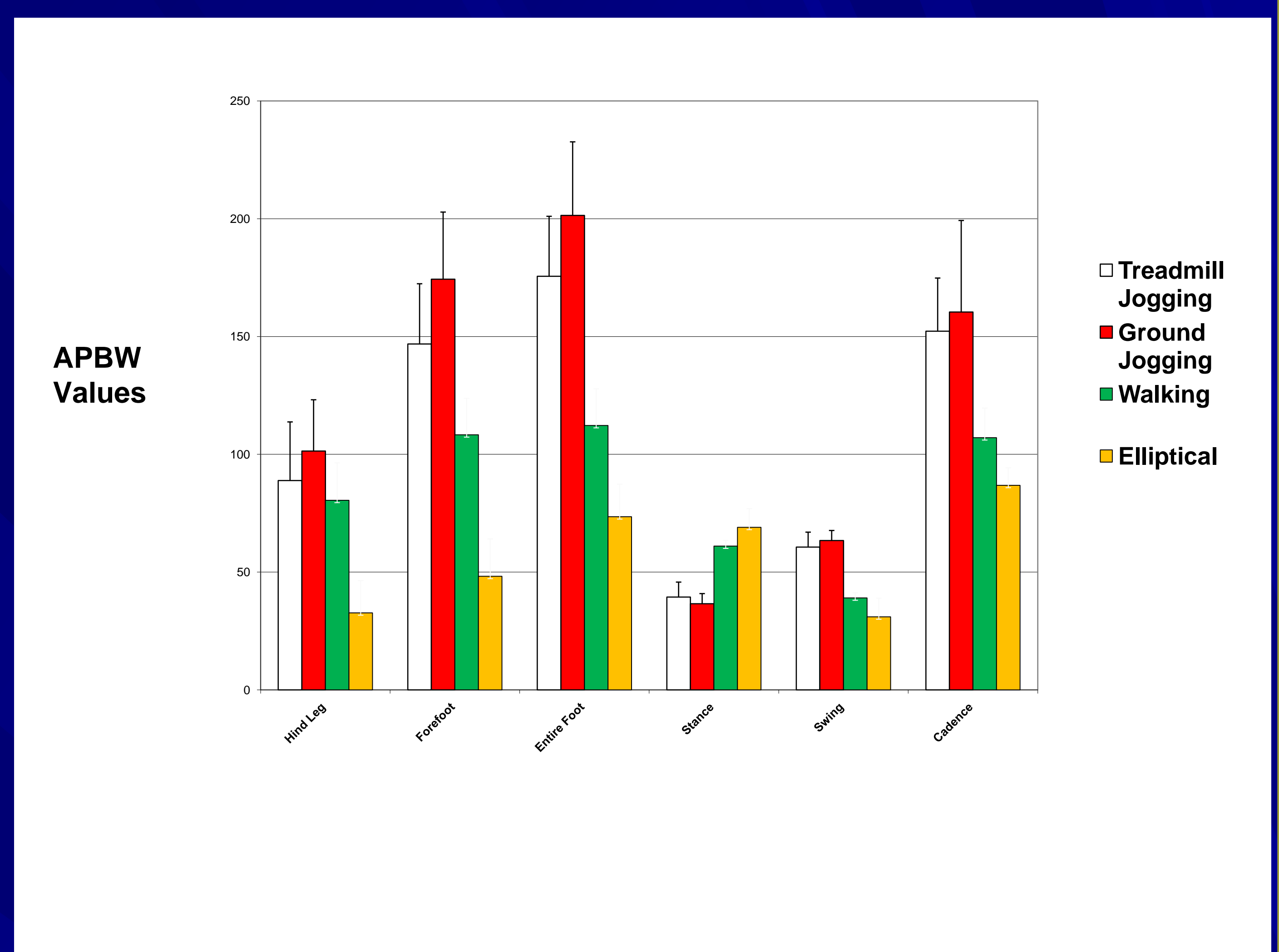
**Four tests were conducted....**

1. Overground walking (OGW) over a 20m distance
2. Overground jogging (OGJ) over a 20m distance
3. Treadmill jogging (TJ) at a constant speed Of 8.5 km/hr for a 15-second interval
4. Elliptical exercise (EE) for a 20 second period at a resistance and incline level of 10, and a steady pace within the range of 70-95 steps/min.

## MAIN OUTCOME MEASURE

Smartstep™ weight-bearing gait analysis system

## RESULTS



## CONCLUSIONS

1. EE significantly reduces weight-bearing as compared to other common functional and sporting activities
2. These findings may assist the rehabilitation team when considering returning individuals back to early activity following certain bony or soft tissue pathologies or lower-limb surgical procedures
3. This information is also useful from a repetitive loading standpoint (to prevent overuse injury) or for exercise recommendations for those at greater risk for exacerbating chronic joint pathology