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Increasing Physical Activity Amounts and Intensity in Older Adults Using Low Cost Wearable Devices - “Cadence Training”

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Increasing Physical Activity Amounts and Intensity in Older Adults Using Low Cost Wearable Devices – “Cadence Training”

Catrine Tudor-Locke
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I have no actual or potential conflict of interest in relation to this presentation.
New generation consumer tracking devices
Expected values for special populations

- Heart and Vascular Diseases (15)
- COPD (2)
- Type 2 diabetes (11)
- Dialysis (1)
- Breast Cancer Survivor (9)
- Breast Cancer in Treatment (1)
- Neuromuscular Diseases (3)
- Arthritis (2)
- Joint Replacement (9)
- Fibromyalgia (1)
- Disabled Older Adults (2)
- Intellectual Disability (4)
- Multiple Chronic Illness (1)

Tudor-Locke et al., Preventive Medicine, 2009
Alternative Terms for Cadence

- Step frequency
- Step rate
- Stride frequency
- Stride rate
- Walking tempo
- Steps/min
- SPM
- $\text{Steps} \cdot \text{min}^{-1}$
6135 steps/day

24-hour time clock

Cadence (steps/min)


Department of Kinesiology

Tudor-Locke et al., in progress
Synthesis of 7 treadmill/track/corridor studies

Metabolic Equivalent (MET); 1 MET = 3.5 ml oxygen consumption per kg per minute

Tudor-Locke et al., IJBNPA, 2011