

Ontology of number of walking bouts at specified bout durations



CORE MEASURES *of*
PHYSICAL ACTIVITY



Digital Measures Development

Access more resources: [DATAcc's Core Measures of Physical Activity](#)

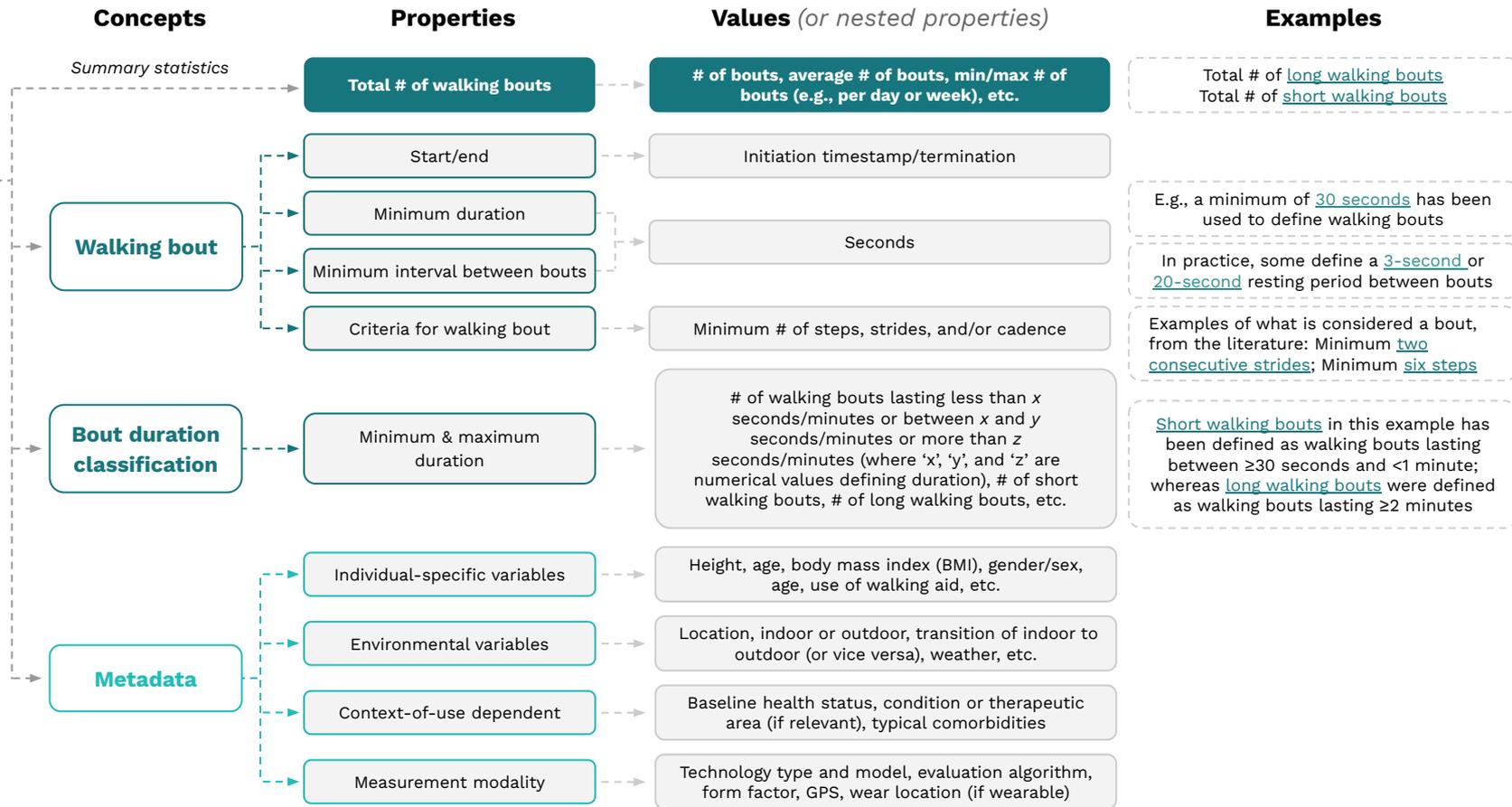
Ontology of number of walking bouts at specified bout durations

of walking bouts at specified bout durations



Definition

The total # of walking bouts of a certain duration, over a specific period of time



Number of walking bouts at specified bout durations



Measure considerations (assumptions & limitations):

- While stepping and walking are related concepts, there is a distinction. Stepping is a component of walking, related to the movement of the foot and its contact with the ground. Walking describes more continuous locomotion, composed of a series of steps, often resulting in a forward displacement of a person's center of mass. Walking is rhythmic and involves specific cadence, walking speed, stride length, and other kinematic properties. [\(1,2\)](#)
- There is potential for varying definitions of walking and non-walking behavior.
- Wear locations for wearables can drive the biggest differences in measurement (where standing would be represented as the initial movement) and step count [prediction algorithms](#).
- Factors such as: specific day of the week, type of physical activity performed (if applicable), duration of measurement, and other factors to support decision on number of units will need to be collected to get a good estimate of walking bouts describing specific slices in time.
- If a patient uses a walker or cane, but their condition improves and the walking aid is no longer needed, further analysis may be required to account for this change. In addition, walking aids will not necessarily be used for all locomotive activities and may be task- and context-specific.