Gait Characteristics

Stride:
- defined as two steps
- one motion cycle
- approximately 1 hertz for walking

Stride time:
- duration of a stride
- count number of video frames and multiply by 1/30\textsuperscript{th} or 1/60\textsuperscript{th} depending upon the video system (1/25\textsuperscript{th} or 1/50\textsuperscript{th} for PAL (European) systems)

Stride rate:
- 1/stride time
- can also be measured in hertz or strides per second

Stride length:
- measure distance from toe-to-toe or heel-to-heel during the stance phase
- measure in metres

Stride velocity or speed:
- stride length x stride rate or stride length / stride time
- in metres per second

(Step) Cadence:
- stride rate x 120 (2 steps x 60 s/min)
- in beats (steps) per minute