

Texting & Walking: A Dual-Task Study on Gait Patterns in a College-Aged Sample

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Texting and walking is a common occurrence in the college-aged population due to the influence of cell phones on society. This may lead to altered gait patterns and possible injury. **PURPOSE:** To examine the effects of texting and walking on selected gait parameters between males and females in a college-aged sample. **METHODS:** Twenty-one students from Shippensburg University (14 females, 7 males, age: 21.2 ± 0.9 years) volunteered to walk through a mock intersection under two conditions: walking without texting (CON) and texting while walking (DT). Two trials were performed for each condition and the order was randomized. Selected kinematic gait variables were measured using a gait mat and differences in time were measured using a digital timing system. **RESULTS:** There were not any significant gender differences for the measured gait variables ($p > .05$), but there were differences between conditions. The results showed gait speed (GS) was significantly lower ($p \leq .05$), cadence (CAD) decreased ($p \leq .05$), and double-support time (DST) increased ($p \leq .05$), during the DT condition. **CONCLUSION:** Texting while walking resulted in reduced gait speed, decreased step frequency, and an increased time spent in double support. These effects were not affected by sex. Causations for these outcomes should be investigated further.

Variables	DT Condition (M \pm SD)			CON Condition (M \pm SD)		
	Female	Male	Total	Female	Male	Total
GS 1 (m/s)	0.95 \pm 0.13	1.02 \pm 0.22	0.98 \pm 0.16	1.18 \pm 0.10	1.21 \pm 0.15	1.19 \pm 0.12
GS 2 (m/s)	0.97 \pm 0.11	0.99 \pm 0.25	0.97 \pm 0.16	1.20 \pm 0.08	1.18 \pm 0.14	1.19 \pm 0.10
GS 3 (m/s)	0.94 \pm 0.11	0.96 \pm 0.21	0.95 \pm 0.15	1.16 \pm 0.08	1.13 \pm 0.14	1.15 \pm 0.10
GS Total (m/s)	0.95 \pm 0.10	0.98 \pm 0.23	0.96 \pm 0.15	1.18 \pm 0.08	1.16 \pm 0.13	1.17 \pm 0.10
CAD (steps/min)	103.69 \pm 10.04	99.37 \pm 14.63	102.25 \pm 11.58	111.9 \pm 9.26	107.26 \pm 10.05	109.62 \pm 9.56
DST (s)	0.19 \pm 0.04	0.19 \pm 0.06	0.19 \pm 0.04	0.16 \pm 0.02	0.16 \pm 0.02	0.16 \pm 0.02