

Comparison of Six-Minute Walk Tests Between Shod and Minimalist Footwear Individuals in Mid-Life : A Preliminary Study Analysis

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ABSTRACT

Research has shown that wearing minimalistic footwear can increase intrinsic and extrinsic foot muscle size and strength, although the effect of transitioning from shod to minimalist footwear on gait functionality—such as performance on a six-minute walk test—is not well documented. **PURPOSE:** We observed the differences in a six-minute functional walk test between mid-life (45yrs-65yrs) individuals who transitioned to minimalist footwear (MF) over a fourteen month period compared to habitually shod (HS) individuals. **METHODS:** Twenty mid-life individuals participated in this study. Participants were randomly assigned to either the MF (n=8, age= 56.5 ± 5.18 yrs, height= 162.71 ± 7.69 cm, weight= 82.71 ± 16.24 kg,) or HS (n=12, age= 57.36 ± 5.43 yrs, height= 162.91 ± 7.44 cm, weight= 73.48 ± 15.65 kg) group. MF participants were coached through a nine-week training to safely transition to MF. Participants assigned to the HS group were instructed to continue normal activity. Each participant underwent a data collection at 1 week, 9 weeks, 8 months, and 14 months. At each data collection, the individual was instructed to walk as far as possible around a set track for 6 minutes. Every lap around the track was 208 feet and partial laps were measured to the distance completed. **RESULTS:** A repeated measures ANOVA indicated a significant increase in distance walked at 8 months (1703.5 ± 190.2 ft, p=0.009) and 14 months (1708.1 ± 181.1 ft, p=0.025) compared to week 1 (1634.6 ± 194.7 ft). There was no significant difference between groups in the increase in walking distance (p=0.950). Significant covariates were biological sex (p=0.007) and height (p=0.034). **CONCLUSION:** Overall, participants in the study increased walking distance in the six-minute walk test regardless of group. Therefore, minimalist shoes do not appear to affect gait functionality in mid-life adults during the six-minute walk test.

Southwest Chapter

