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**TAKING LESS THAN 5000 STEPS PER DAY IS ASSOCIATED WITH SLOWER
GAIT SPEED, POORER BALANCE PERFORMANCE, LOWER QUALITY OF LIFE
AND MORE SEDENTARY TIME IN ELDERLY INDIVIDUALS WITH OSTEOPOROSIS**

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Objectives

To describe objectively measured physical activity levels and patterns among elderly individuals with osteoporosis, self-perceived impaired balance and fear of falling, and the associations between steps/day and gait, balance performance, fear of falling, and health-related quality of life (HRQoL).

Methods

Ninety-four community-dwelling individuals (2 men) with osteoporosis, 66-86 years (mean 75.6 ± 5.4) were included. Physical activity was objectively assessed with pedometer (Yamax) and accelerometer (Actigraph). Steps/day and time spent in different physical activity intensities were analyzed. Gait was assessed with a GAITRite walkway, balance performance with a Modified-Figure-Eight test and one-leg stance, fear of falling with Falls Efficacy Scale International, and HRQoL with Short form-36.

Results

Mean steps/day were 6185 (range: 991-17156), and 40% reported <5000 steps/day. There were significant differences in time spent in different physical activity intensities as well as in gait speed, balance performance and HRQoL, between participants taking <5000 or ≥ 5000 steps/day. None of the participants taking <5000 steps/day met the recommended 150 minutes of moderate physical activity per week. Fear of falling was not associated with physical activity.

Conclusions

A physical activity level of <5000 steps/day was associated with slower gait speed, poorer balance performance, lower HRQoL, and more time spent sedentary in elderly individuals with osteoporosis, self-perceived impaired balance, and fear of falling. Steps/day may help identify individuals in need of increasing their physical activity level to reach the current recommendations for health-enhancing physical activity.