Reduced lower extremity ranges of motion are risk factors for falls in older women

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Lower extremity range of motion (ROM) reductions with aging are related to limited balance and functional ability. erefore the aim of this study was to determine whether reduced lower extremity ROMs are risk factors for falls in older women. 81 community dwelling older women (mean age±SD, 70.4±4.6 years) were recruited in this study. Nine lower extremity ROMs, hip exion, hip extension, hip abduction, hip adduction, hip internal and external rotation, knee exion, ankle dorsi exion and ankle plantar exion, were measured by an examiner. e falls data from the past 12 months were collected via face-to-face interviews with the participants. 29 (35.8%) participants reported falling during the past 12 months. Compared with those who did not fall, fallers displayed reduced hip exion, hip external rotation and ankle dorsi exion ROMs. Discriminant function analysis revealed that reduced hip exion, hip external rotation and ankle dorsi exion ROMs were signi cantly and independently associated with falls and that the discriminant function coe cients for these ROMs were hip external rotation>ankle dorsi exion>hip exion. is study provides evidence that reduced hip exion, hip external rotation and ankle dorsi exion ROMs are important risk factors for falls in older women. e ndings of this study may prove useful in a clinical setting to maximize the potential bene t of interventions aimed at reducing and preventing falls.