Background Descending stairs becomes more problematic for aging females who lose muscle mass quicker than males however, limb differences are unknown.

Aim To explore age-related changes in strength, asymmetry between limbs and how those differences altered stair descent performance.

Methods Older and younger females descended a three-step staircase approximately 10 times while kinetic and kinematic data were recorded. Weight acceptance and forward continuance means were compared across age, limb and step type. To assess asymmetry, maximal isometric hip and knee strength was assessed for each limb. (P< .05).

Results Strength was different between age (p< .05), except hip extension, and symmetrical between limbs (p> .05). Older females: had longer stance times initially which became shorter as they progressed; used more knee flexion at impact; and shifted joint moments towards the hips, especially on the floor. A potential control difference between limbs was found between kinetics regardless of age.
**Discussion** Step type influenced most variables recorded, with the floor having the greatest impact. Age effects were seen predominantly in the sagittal plane and can be linked to strength. Differences found between the dominant and non-dominant limb may indicate an altered control strategy whereby the non-dominant limb minimized weight acceptance peaks of the dominant limb. This difference was irrespective of age but warrants further consideration.

**Conclusion** Stair descent kinetics and kinematics changed between limbs for both younger and older females despite having symmetrical strength. Future studies should include muscle activity and joint kinematics to help identify limb control differences.