

This table refers to the article [“Osteoporosis – Exercises for Prevention and Maintenance”](#) on [RunUltra](#)

Exercise mode	Exercise components	Low risk individuals (prevention of OP)	Moderate risk individuals (prevention of OP)
Impact loading	<p>Vertical & multidirectional jumping, bounding, hopping, skipping rope, drop jumps and bench stepping. Progress Bodyweight (BW) intensity by increasing heights for activities such as bounding and drop jumps, adding weighted vests and changing directions.</p> <p>Impact loading can be interspersed between balance and resistance training exercises, using weighted vests, changing direction of movement</p>	<p>Intensity: high impact activities (>4BW), as tolerable</p> <p>Frequency: 4-7 d/wk</p> <p>Sets/reps: 50 jumps per session (3-5 sets of 10-20 reps with 1-2 minute rest between sets)</p>	<p>Intensity: moderate to high impact (>2BW), as tolerable</p> <p>Freq: 4-7 d/wk</p> <p>Sets/reps: 50 jumps per session (3-5 sets of 10-20 reps with 1-2 min rest between sets)</p>
Progressive resistance Training (PRT)	<p>Eight exercises per session targeting major muscle groups attached to the hip & spine including (on a rotating system): weighted lunges, hip abduction/adduction, knee extension/flexion, plantar/dorsiflexion, back extension, reverse chest flies, and abdominal exercises, or a smaller number of compound movements such as squats & deadlifts</p>	<p>Intensity: high to very high (80-85% 1 RM; \geq 16 on Borg 6-20 scale Rating of Perceived Effort (RPE) “very hard”).</p> <p>Freq: 2d/wk</p> <p>Sets: 2-3 sets of 8 reps</p> <p>Consider high velocity (rapid) PRT exercises to enhance muscle power & function. Avoid deep forward spine flexion. Training in technique & supervision essential</p>	<p>Intensity: high to very high (80-85% 1RM \geq 16 on BORG 6-20 scale RPE “very hard”).</p> <p>Freq 2d/wk</p> <p>Sets: 2-3 sets of 8 reps</p> <p>Consider high velocity (rapid) PRT exercises to enhance muscle power & function. Avoid deep forward spine flexion. Training in technique & supervision essential</p>
Balance Training	<p>Standing & moving exercises with gradual reduction in base of support to standing on one foot, changing the centre of mass with leaning and reaching then regaining balance with minimal use of support from the upper extremities e.g. tai Chi, single leg stance, tandem stance, tandem walk, backwards, sideways and crossover walks, circle & pivot turns, figure of 8 walks, stepping over & avoiding obstacles, walking on uneven surfaces. Progress by altering surface (foam mats) and reducing base of support, longer or faster steps, heel & toe walks, raised arms walk, withdrawing vision during balance tasks, and dual tasking (e.g. cognitive task such as counting backwards or naming animals, combined with balance activities)</p>	<p>Intensity: challenging</p> <p>Freq: incorporate balance activities where possible into strength & impact elements of the exercise program</p> <p>Tasks performed with eyes closed close to support</p>	<p>Intensity: challenging</p> <p>Freq: 4d/wk</p> <p>Sets/reps: 30 minutes of a variety of balance exercises per session: at least 10 sec per balance exercise and at least 10 steps forward and back for mobility exercises, increasing as tolerated to longer durations</p> <p>Could be accomplished within other exercise bouts during the course of the week</p> <p>Tasks performed with eyes closed close to support</p>