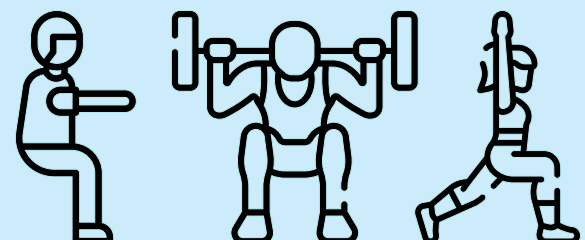
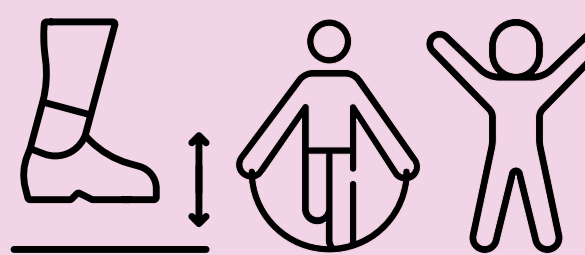



# EXERCISE PRESCRIPTION TO SUPPORT THE MANAGEMENT OF OSTEOPOROSIS

For Physiotherapists and Exercise Physiologists

Three individual exercise sessions per week containing the following components of each exercise type

Type	Dose	Intensity	Exercise Examples	Visual Examples
Progressive resistance training	2-3 sets 5-8 repetitions.	Progress to 75-85% of 1RM or 5 to 8 on Borg 0-10 RPE scale. Higher intensity and fracture risk requires supervision.	Weighted squats, lunges, deadlift, hip exercises, back extension etc.	
Progressive impact training	~50 impacts per session. Best divided into brief bouts.	Gradual progression up to moderate impact (>2-4 x body weight) as tolerated.	<b>Low level:</b> foot stomping <b>Moderate level:</b> low jumps, skipping	
Progressive balance activities	3 hours – can be divided into brief bouts and include PRT and impact training time.	Moderate to high balance challenge.	Heel-to-toe walks, single leg stance, circle and pivot turns, Tai Chi, stepping	

For consumer fact sheets and information



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[healthybonesaustralia.org.au](http://healthybonesaustralia.org.au)



Consumer toll-free number  
**1800 242 141**

## Assessing risk

Review individual fracture risk status to optimise exercise prescription.

This should be based on a judgement of:

- Bone strength - based on BMD T-score and/or previous minimal trauma fracture
- Risk of falling - based on fall history, gait speed  $\leq 1.0$  m/s, the Timed Up and Go test  $> 12$  seconds and/or frailty

## Person-centred approach

The best exercise program is one that a person will actually do!

Focus on '**how-to**' not 'can't do' instructions - particularly after fracture.

The below factors should be considered when developing an exercise program:



MONEY



TIME



MENTAL HEALTH



CULTURE



BASELINE ABILITY

A comprehensive program can also help **develop confidence** to re-engage with functional and social activities that are important to **quality of life**.

## Special considerations



**Arthritis** - may need to modify resistance training exercises to a pain-free joint range. High impact exercises may need to be reduced in intensity.



**Shoulder injuries** - may require rehabilitation and/or modification of exercises that involve loading above the shoulder or in abducted or externally rotated positions.



**Recent fracture** - client should be sufficiently progressed in their post fracture healing to be able to engage in loading of the fracture site. Exercise to improve back extensor endurance, spine mobility and balance can be gradually introduced post-vertebral fracture.



**Cancer** - clients with bone metastases must undertake bone loading with care depending on the location of lesions, however, exercise will be beneficial and should be encouraged.



**Cardiovascular/pulmonary disease** - no resistance training modifications typically required. Intensity should be reduced to avoid exacerbation. Fatigue may necessitate seated rest between sets.



**Pelvic floor conditions** - Exercise is recognised as a vital element of pelvic floor health; however, it is recommended that clients consult a specialist pelvic health physiotherapist for assessment of their individual condition.