

Recommended exercises for different stages of life

Group	Type of exercise
Healthy adults	A variety of weight-bearing activities and progressive resistance training for at least 30 min, 3-5 times per week. AVOID prolonged periods of inactivity.
Post menopausal women and middle aged men	Varied exercise regime – include moderate to high impact weight-bearing exercise and high intensity progressive resistance training, at least 3 times per week. Tip: specific ‘spinal extension’ resistance training during middle-age has been shown to reduce spinal fractures.
Older adults and people at risk of osteoporosis	Participation in varied and supervised exercise programs is encouraged. These include weight-bearing activities, progressive resistance training and challenging balance and functional activities, at least 3 times per week.
Frail and elderly	A combination of progressive resistance training and balance exercises is recommended to reduce falls and risk factors for frailty (which may include muscle wasting, poor balance, fear of falling).
Osteoporosis*	A combination of weight-bearing exercise with supervised progressive resistance training and challenging balance and mobility exercises, at least 3 times per week. AVOID forward flexion (bending over holding an object, sit ups with straight legs) and twisting of the spine, as this may increase risk of a spinal fracture.
Osteoporosis – after a fracture has occurred	Exercise is an important part of rehabilitation and a program will normally be planned and supervised by a physiotherapist. Exercises will be determined by the type of fracture and the patient’s age and level of physical function. Resistance training has been shown to be effective following hip fracture.

* Moderate to high impact activities are only recommended for people with osteoporosis who do not have a previous fracture(s) or lower limb arthritis. Consult your doctor and physiotherapist for advice.

Weight-bearing activities may either be moderate impact (for example, jogging, hill walking), moderate to high impact (for example, jumping, skipping, step ups) and/or various sports that involve moderate to high impact (for example, basketball, tennis).

Resistance training requires muscles to contract when lifting weights, placing stress on the muscle and related bones. The bones strengthen as they adapt to this extra strain. It is best to target specific muscle groups around areas that are most vulnerable to osteoporotic fractures – usually the hip and the spine. It is also wise to strengthen leg muscles to improve balance.

Note: Leisure walking on its own is not recommended as an adequate strategy for bone health, although it has benefits for general health and fitness. Swimming and cycling are also considered low impact sports that are not specifically beneficial for bone health.