

The logo for Exercise Healthcare Australia features the word 'EXERCISE' in blue, 'HEALTHCARE' in green, and 'AUSTRALIA' in blue. The letter 'X' in 'EXERCISE' is stylized as a green human figure with arms raised, and a small green dot above it representing a head.

EXERCISE HEALTHCARE AUSTRALIA

Medicating with Exercise: Exercise and Osteoporosis

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Osteoporosis and Exercise

- ▶ “Bone responds well to impact activities and high intensity progressive resistance exercise”
- ▶ Bone is a dynamic tissue like muscle with the capacity to adapt when provided adequate stimulus

A PRESCRIPTION YOU WON'T FIND IN A PHARMACY



Key types of physical activity and exercise

Impact Loading

Progressive Resistance
Training

Balance Training

Impact Loading Guidelines

Moderate Risk Individuals (T Score -1.0 to -2.5)

- ▶ 4 - 7 days a week
- ▶ >2 x Body Weight, moderate to high Impact activities, as tolerable
- ▶ 50 jumps per session, 3 - 5 sets of 10 - 20 repetitions
- ▶ 1 - 2 mins rest between sets

High Risk Individuals (T Score <-2.5)

- ▶ 4 - 7 days a week
- ▶ 2- 3 x Body Weight, moderate impact activity
- ▶ Progressive Resistance Training required prior to performing impact loading
- ▶ Work up to 50 repetitions, 5 sets of 10 repetitions
- ▶ 1 - 2 mins rest between sets
- ▶ Should be supervised and within reach of supports

Progressive Resistance Training Guidelines

Moderate Risk Individuals (T Score -1.0 to -2.5)

High Risk Individuals (T Score <-2.5)

- ▶ 2 days a week
- ▶ High to very high intensity RPE of >16 borg scale or “very hard”
 - ▶ 2 - 3 sets of 8 repetitions
 - ▶ 1 - 2 mins rest between sets
 - ▶ Avoid spinal flexion
- ▶ Technique and exercise execution imperative

Balance Training Guidelines

Moderate Risk Individuals (T Score -1.0 to -2.5)

- ▶ 4 days a week
- ▶ Challenging to the individual
- ▶ >10 seconds or >10 steps
- ▶ Variety of exercises

High Risk Individuals (T Score <-2.5)

- ▶ 4 days a week
- ▶ Challenging to the individual
- ▶ >10 seconds or >10 steps
- ▶ Variety of exercises
- ▶ Should be supervised and within reach of supports

Example Exercise Program

Moderate Risk Individuals (T Score -1.0 to -2.5)

- ▶ Treadmill 5mins @ RPE 13 “somewhat hard”
- ▶ Single leg balance on foam mat 3 sets of 30s each side
- ▶ Tandem walk with head turns 3 x 10steps
- ▶ Step down and straight leg landing 5 sets of 10
- ▶ Weighted sit to stand 3 x 8 @ RPE 17

High Risk Individuals (T Score <-2.5)

- ▶ Recumbent Bike 5mins @ RPE 13 “somewhat hard”
- ▶ Semi tandem stand at rail support 3 sets of 30s each side
- ▶ Tandem walk with wall support 3 x 10steps
- ▶ Heel Drops with straight legs 3 sets of 10
- ▶ Leg Press 2 x 8 @ RPE 17