

PROVe: Physiotherapy Rehabilitation for Osteoporotic Vertebral fracture



Participant Information Laminates

**Use applicable laminates according to participants identified advice need.
Reassure participant that they will be given a leaflet to take home with them.**

BONE

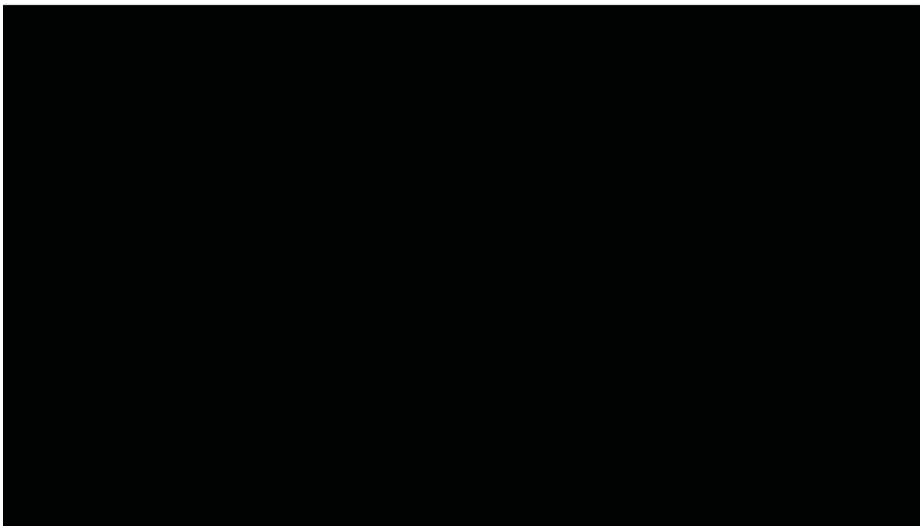
- Bone contains protein, calcium salts and other minerals
- Each bone is made up of
 - a thick outer shell - cortical bone
 - a strong inner mesh - trabecular bone (like honeycomb)



- Bone is alive and constantly changing throughout life.
- Old, worn out bone is
 - broken down (by osteoclast cells)
 - replaced (by osteoblast cells)
- You can affect this process through your life style.

WHAT IS OSTEOPOROSIS?

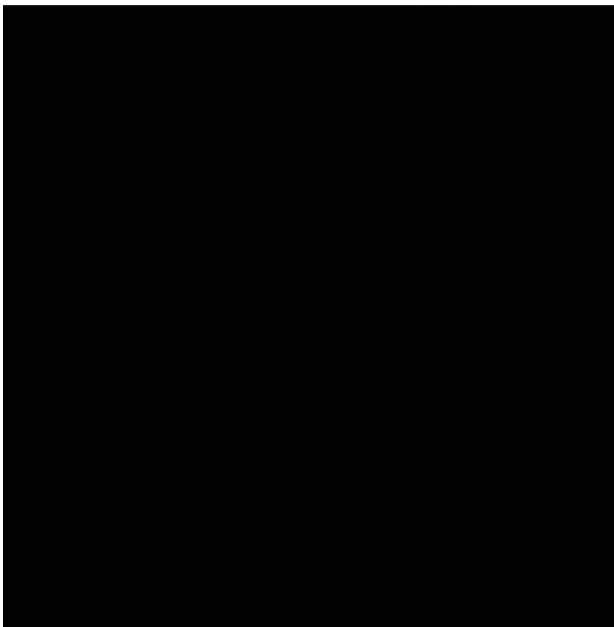
- Osteoporosis means “porous bones”.
- Occurs when cells breaking down old bone work harder than cells building new bone.
- Bone loses density and become more fragile.



- Fragile bone can fracture (break) more easily (minor / no injury).
- Almost 1 in 2 women and 1 in 5 men over 50 will break a bone, mainly due to osteoporosis.

Osteoporosis of the Spine

- Spinal osteoporosis occurs in the thoracic or lumbar regions.
- Fragile vertebrae become 'squashed' - compression fracture.



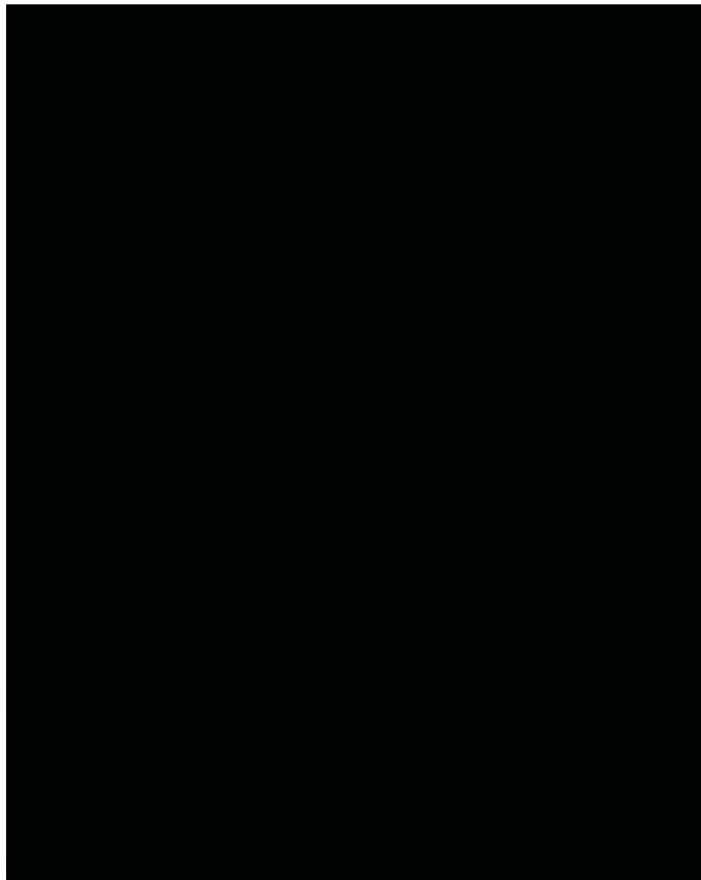
- Wedge fractures can cause the spine to tip forward causing an outward curve (kyphosis).
- Compression fractures can cause loss of height.
- Vertebrae will heal after a fracture but do not return to their previous shape.

- (Osteoporotic spinal fractures rarely interfere with spinal cord).

Healthy Eating and Osteoporosis.

The food you eat can help keep your bones strong

- Incorporate a wide variety of foods from four main groups:
 - fruit and vegetables
 - carbohydrates - bread, potatoes, pasta, cereals
 - dairy products - milk, cheese, yoghurt
 - protein - meat, fish, eggs, pulses, nuts, seeds.

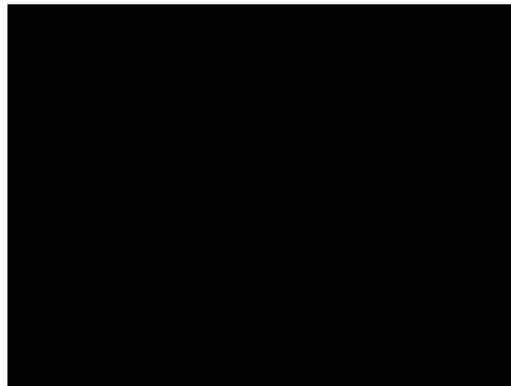


- Aim for a healthy body weight to protect bones

Calcium and Vitamin D

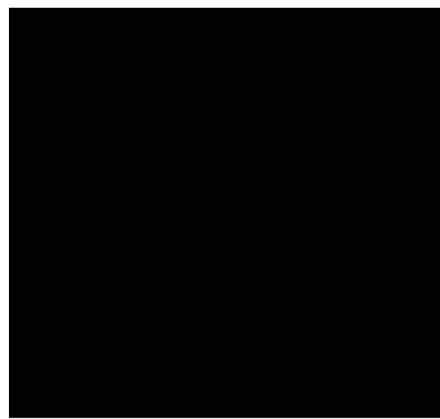
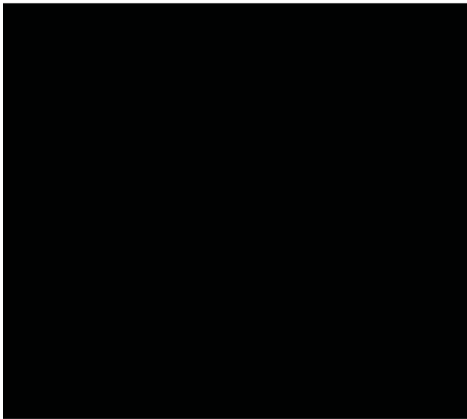
Calcium:

- Vital for strong bones and teeth
- You need more than 700mg of calcium per day.



Vitamin D:

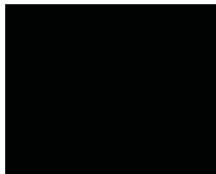
- Helps your body absorb calcium.
- Sunlight is best source.
- **10 minutes** sun exposure to bare skin, **once or twice a day**.
- Get outside May – September to see you through the winter months.
- You need more than 10 microgrammes of Vitamin D per day.



Smoking and Drinking

Smoking

- Slows down bone building.
- Fracture risk is higher for current smokers than those who have given up.



Excess alcohol

- Significant risk factor for osteoporosis.
- Alcohol intoxication - risk of fall and fracture.
- Government's recommended daily alcohol limit:
 - men 3-4 units.
 - women 2-3 units.



Exercise

Weight bearing exercise:

- Activities supporting the weight of your body, e.g. brisk walking, tai chi.
- Can make your skeleton grow stronger.



Muscle strength, balance and co-ordination:

- Can be maintained with exercise like swimming, gardening, golf.
- Regular exercise reduces risk of falls.



Recommended: 30 minutes exercise 5 times per week.
Protect your spine

**Activities which overload the spine:
(and increase risk of fracture)**

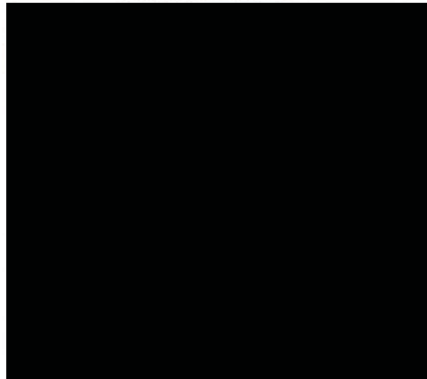
- Forward bending
- Twisting
- Heavy/overhead lifting

Avoid overloading spine:

- Bend from hips & knees
- Step feet round
- Use long handled aids
- Support back when coughing/sneezing



Reduce risk of falling:



- Remove hazards –rugs, wires, poor lighting
- Supportive shoes
- Eyesight & hearing checks
- Consider use of walking aids/stair rails