

# 16 Bone Health

Time Taken: 20 Minutes 

## Objectives

This section will introduce participants to the topic of Bone Health.





## Step 1




### Importance of Bone Health

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For today's workshop explain to participants that we are going to talk about bone health.

#### *Why do we keep our bones healthy?*

Our bones are very important:

-  They give our body its shape and help us to move, eat and speak.
-  Bones protect our heart, lungs and other organs from injury.
-  Bones also produce our blood cells that help to keep us healthy.



## Step 2

### How to Build Strong Bones

To make bones stronger you need to eat and drink lots of foods with calcium, have enough Vitamin D and do lots of weight-bearing physical activity. Adults should have 700-800mg of calcium every day.

#### Foods that are rich in calcium:



Cheddar Cheese  
matchbox sized  
portion (200mg).



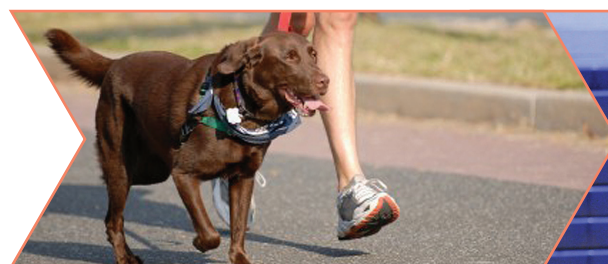
Skimmed Milk  
200ml glass  
(250mg).



Low Fat Yogurt  
1 pot (225mg).

## Weight bearing exercises that helps to build strong bones:

Walking



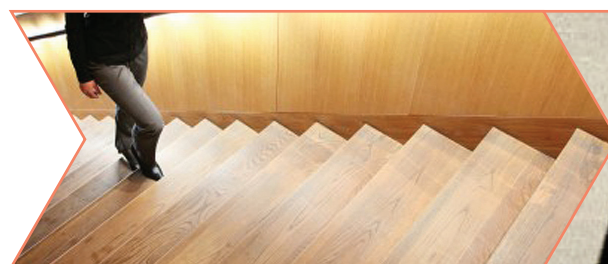
Basketball



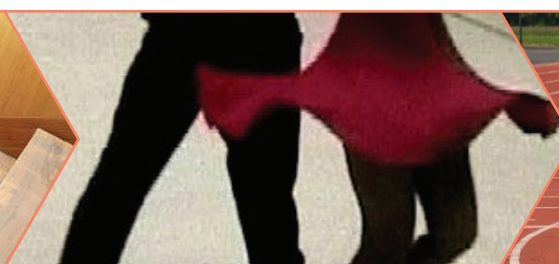
Football



Climbing Stairs



Dancing



Athletics



## Step 3








### Osteoporosis: Risk Factors

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Explain to participants that osteoporosis is the weakening and thinning of bone.

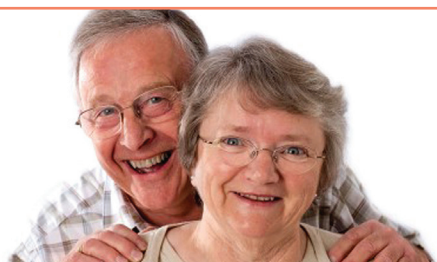
Osteo means bone and porosis means holes, so it is literally holes in our bones.

#### Possible risk factors for osteoporosis:

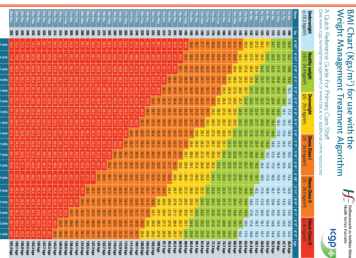
-  Gender.
-  Family History.
-  Low Body Weight.
-  Unhealthy Eating.
-  Inactive Lifestyle.
-  Smoking.
-  Medical Conditions.



**Gender:** Osteoporosis is more common in women than men. The reason for this is because women have thinner bones than men. However 1 in 5 men will get osteoporosis and it can affect all age groups including children.



**Family History:** If your parents, grandparents, brothers or sisters had or have osteoporosis, there may be a genetic link, which is a strong risk factor.



**Low Body Mass Index:** Our body mass index tells us if we are underweight, a healthy weight or overweight. It is not suitable for children or elite athletes. Your doctor can check your body mass index, if it is below 18.5 than you are underweight for your height and should talk to a dietitian about how to put on weight in a healthy way.



**Unhealthy Eating:** People who have a diet low in calcium and vitamin D are at a greater risk of getting osteoporosis.



**Inactive Lifestyle:** People who do not take part in weight bearing activity are at a higher risk of getting osteoporosis.



**Smoking:** toxins in cigarettes can cause your bones to weaken.



**Medical Conditions:** People who have coeliac disease have had chemotherapy, radiotherapy or steroid treatments are all at greater risk of developing osteoporosis.

Show participants the poster on the next page.  
Ask everyone to think who in the picture has osteoporosis.





Explain to participants that each of the people in the picture have osteoporosis.

From left to right in poster:

- 🦷 20 year old with the bones of an 82 year old - over exercising, not taking in enough calories. She found out recently that after 3 years on treatment she now has improved her bone density to within normal limits for her age.
- 🦷 Genetic - her father had it. She has prevented further fractures since being diagnosed and has improved her bone strength.
- 🦷 Wheelchair bound from motorbike accident – has improved bone density even though he is paralyzed from the waist down.
- 🦷 Athlete - 41 years with bones of 84 year old.
- 🦷 World Rifle Shooting Champion: over training and poor nutrition - has improved and maintained good bone density.

## Step 4

### Vitamin D and Calcium

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Calcium is very important to keep our bones strong. However, we need Vitamin D to help our bodies absorb calcium.

We can get Vitamin D in two ways:

#### 1. Sunlight

- ☞ Sunlight is a source of Vitamin D.
- ☞ When out in the sun our skin absorbs Vitamin D into our bodies. 15 minutes of sunlight on a person's arms and face without make up or sun block can help you absorb vitamin D.
- ☞ It is extremely important to put sun block on after 15 minutes to prevent skin cancer.



## 2. Diet

- 🦴 Vitamin D is also found in some foods.
- 🦴 Foods that contain Vitamin D are eggs, margarine and oily fish (salmon, mackerel and sardines).
- 🦴 There are also certain foods that have added Vitamin D such as breakfast cereal and milk.

## Games and Activities

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- 🦴 Activity Dice.
- 🦴 Weight-Bearing Exercise.

**Step 5**