

PREVENTING

# OSTEOPOROSIS

LOOKING AFTER YOUR BONES



# OSTEOPOROSIS

Osteoporosis is where bones become thin and lose density.

As you get older this occurs naturally and bones lose strength and rigidity.

When bones become weak and brittle they break easily.

## LIVING BONE

Bone is a living tissue. It has a tough outer shell with a porous inside.

During life, bone tissue is continually replaced and repaired.

Osteoporosis can develop when calcium leaves the body faster than it enters. This can happen in women after menopause.

Oestrogen, the female hormone produced by the ovaries, helps to give bones calcium. After menopause the drop in oestrogen levels causes the body to lose calcium more quickly.

The average risk of a fracture caused by osteoporosis increases as you get older. This table shows how the risk increases with age.

**Average risk of a fracture occurring due to osteoporosis over the next five years**

Age Group	60-64	65-69	70-74	75-79	80-84
<b>Males</b>	6%	7%	10%	17%	36%
<b>Females</b>	9%	10%	15%	25%	50%

## SIGNS OF OSTEOPOROSIS

Signs of osteoporosis may be:

- Fractures of the wrist, hips, spine or other bones.

A fall or hard knock, and sometimes doing routine things like bending, lifting or just getting up from a chair can cause fractures.

This happens because brittle bones have trouble supporting body weight.

- Loss of height – as the vertebrae of the spine weaken they compress and the spine curves.

## RISKS

- Being thin
- Irregular periods
- Early menopause – often caused by having your ovaries removed
- Family history of osteoporosis or fractures
- Diet low in calcium
- Smoking
- Excessive alcohol
- Being immobilised in bed for long periods
- Diet high in salt
- Long term use of some medication including steroids.



## PEOPLE AT RISK

### Older women

- You are more at risk of fractures. Men have a denser bone structure.

### Young women

- You are at risk if you exercise to extremes and lose your periods, have a low body-weight or have low calcium intakes.

### Men over 60

- Men over 60 are also at risk of osteoporosis, especially if they smoke, have a low testosterone (male hormone) level or are a heavy drinker.

## PREVENT OSTEOPOROSIS

Bone reaches its peak density when you are between 30 to 35 years old.

Making sure you have as much bone density as possible before then helps to prevent osteoporosis.

Exercise and a varied diet with plenty of calcium helps you maintain bone mass. Keeping your weight within a healthy range also helps to maintain bone mass.

## PHYSICAL ACTIVITY

Weight-bearing physical activity which puts moderate stress on bones may stimulate new bone growth.

These activities include – walking, tennis, jogging, yoga, dancing, cycling, golf and low impact aerobics. Physical activity is also important for the maintenance of a healthy body weight.

Try to be physically active for about 30 minutes a day, preferably each day of the week.

## DIET

Calcium in your food helps to keep bones strong. Scientific evidence supports an increase in the recommended intakes of calcium for women and men of all ages.

When your body does not get the calcium it needs from the things you eat it uses up calcium stored in bones.

Eating food high in calcium throughout life helps you to maintain bone mass.

Milk products are a good source of readily absorbed calcium.

Eat foods high in calcium at meal times. This is when your body best absorbs calcium.

Vitamin D also helps your body to absorb calcium. Most people get enough vitamin D through general exposure to sun. About 20 minutes each day is recommended but avoid direct sunlight exposure between the peak UV time of 11 am – 4 pm. People who are house-bound or in an institution for a long time may need to take vitamin D supplements. Vitamin D can be toxic so the maximum intake from supplements should be 10 micrograms per day. Talk to your health care provider about this.



# RECOMMENDED DAILY CALCIUM INTAKES

## Recommended Dietary Intake (RDI) for Calcium for Australia and New Zealand

<b>Children</b>	9-13 years	1,000-1,300
<b>Children</b>	14-18 years	1,300
<b>Men</b>	19-70 years	1,000
<b>Men</b>	70+ years	1,300
<b>Women</b>	19-50 years	1,000
<b>Women</b>	50-70+ years	1,300

Note the requirements for pregnancy and breastfeeding are not increased above the requirements for women who are not pregnant or breastfeeding.

## GETTING YOUR DAILY CALCIUM

How to eat about 1000 mgs of calcium in a day:

With dairy products		Without milk products	
Trim milk	200mls	Soy drink, fortified	1 glass (200mls)
Muesli	½ cup	Muesli	½ cup
Wholemeal bread	3 med slices	Wholemeal bread	3 med slices
Peanuts, roasted	¼ cup	Peanuts, roasted	½ cup
Broccoli, boiled	1 cup	Sardines, whole	4
Cheese, cheddar	2 slices (40g)	Spinach, boiled	1 cup
		Baked beans in tomato sauce, or Tofu	1 cup
To make to 1000mg, replace trim milk with a calcium-enriched milk or add 150mg carton of yoghurt		To make to 1000mg, add an extra ½ cup of almonds, a cup of soy drink or a slice of tofu	

Note: low-fat milk options are better sources of calcium than standard milk.



### Prevent Calcium Loss by:

- being smokefree
- cutting down on salt
- going easy if you drink alcohol
- being active.

WORK IT OUT

By using this table you can work out what foods you need to meet your daily calcium needs.

Type of food	Approximate serving size	Calcium in milligrams
Calcium-fortified milk	1 glass (200ml)	400
Whole milk	1 glass (200ml)	232
Trim milk	1 glass (200ml)	290
Cheese	1 slice (20g)	130
Cottage cheese	½ cup	73
Yoghurt	1 pottle	210
Ice cream	½ cup	98
Salmon, canned	1 small can (85g)	80
Sardines, canned	4 sardines	264
Tuna, canned in brine	1 small can (85g)	6
Tofu	½ cup	137
Peanuts, roasted average	½ cup	44
Walnuts	½ cup	75
Almonds, whole	½ cup	195
Sesame seeds	2 tablespoons	22
Sunflower seeds	2 tablespoons	10
Lentils, boiled	1 cup	26
Baked beans in tomato sauce	1 cup	34
Muesli	½ cup	30
Broccoli, boiled	1 cup	59
Spinach, boiled	1 cup	81
Silverbeet, boiled	1 cup	114
Soy drink (fortified with calcium)	1 glass (200ml)	248
Bread, wholegrain	2 med slices	66

Occasionally, some medicines are used to help prevent osteoporosis.

If this is necessary in your case, your doctor will discuss options with you.

## FOR MORE INFORMATION

- Dietitian at the public health service
- Arthritis Foundation
- Dietitian or registered nutritionist
- Doctor
- Public Health Nurse
- Women's health centre
- Osteoporosis NZ

### Prevent Osteoporosis:

- eat food high in calcium
- be active
- enjoy a healthy body weight and image
- be smokefree
- go easy on alcohol
- see your doctor if you have irregular periods
- go easy on salt.

**Spread the word about preventing osteoporosis to your sisters, daughters, grandchildren and parents.**



# PREVENTING OSTEOPOROSIS



New Zealand Government



MANATŪ HAUORA

This resource is available from [www.healthed.govt.nz](http://www.healthed.govt.nz)  
or the Authorised Provider at your local DHB.

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