

- All babies under the age of one year should be given a supplement containing 8.5 – 10 micrograms, unless they have more than 500mls of fortified formula milk.

### Other lifestyle advice for healthy bones

- Be active. Weight-bearing activities are best. For example, walking, aerobics, cycling, running and tennis. Aim for at least 30 minutes of activity, five times a week.
- Smoking is associated with an increased risk of osteoporosis, low bone density and increased risk of hip fracture. Stopping smoking prevents further excess bone loss.

### Useful contact details

For further information, please contact the department of nutrition and dietetics on the appropriate number below:

- 01256 313232 (Basingstoke)
- 01962 824438 (Winchester)



**Hampshire Hospitals**  
NHS Foundation Trust

## Department of Nutrition and Dietetics

# Calcium and vitamin D

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**Information for patients,  
relatives and carers**

[www.hampshirehospitals.nhs.uk](http://www.hampshirehospitals.nhs.uk)

**This booklet has been provided to help answer some of the questions you may have about increasing the calcium and vitamin D in your diet.**

## **Why do I need calcium?**

Calcium is essential in your diet to ensure healthy bones. If your diet does not contain enough calcium, your bones may become thin and weak. They will be more susceptible to osteoporosis (brittle bone disease) and may fracture easily.

Vitamin D is needed to aid the absorption of calcium. The main source of vitamin D is by exposure of the skin to sunlight. It is also found in some foods (see list at the back of this booklet).

## **Sources of calcium**

The main sources of calcium in your diet are milk and dairy products. Use Use lower fat versions unless you are underweight.

Other sources of calcium include tinned fish with edible bones (such as pilchards and sardines), green leafy vegetables, nuts, seeds and white bread. Some foods are fortified with calcium. For example, non-dairy milk alternatives (soya, oat and other nut 'milks'), some fruit juices, breads and bottled water.

## **Vitamin D**

### **Why do I need vitamin D?**

Vitamin D is needed to help your body absorb calcium. Our main source of vitamin D is from exposure of the skin to sunlight between April and October each year. However it can also be found in some foods.

### **Dietary sources of vitamin D**

A small amount of vitamin D can be found in the following foods:

- Oily fish, such as salmon, sardines and trout.
- Cod liver oil (do not take this if you are pregnant).
- Fortified products, such as some breakfast cereals, some yoghurts and infant formula milks.

### **Am I at risk of low vitamin D levels?**

Groups who risk not getting enough vitamin D include:

- All pregnant and breastfeeding women.
- Babies and young children under the age of five.
- People aged 65 and over.
- Anyone who is not exposed to enough sun. For example, people who cover up their skin when outdoors, or who are housebound or confined indoors for long periods.
- People who have darker skin, such as those of African, African-Caribbean and South Asian origin.

### **Should I take a vitamin D supplement?**

The Scientific Advisory Committee in the UK recommends the whole population takes a supplement to maintain adequate vitamin D levels.

- All adults and children over the age of one year should consider taking a daily supplement containing 10 micrograms of vitamin D, particularly between October and April.
- Those in risk groups (as above) should consider taking a supplement containing 10 micrograms of vitamin D all year round.

- Include green leafy vegetables with meals.
- Have dried fruit or nuts as a snack.
- Sprinkle sesame/sunflower seeds on salads and vegetables.
- Chop up dried fruit to add to salads and cereals.
- Cheese and crackers.
- Pasta and sauce, with cheese grated on top.

### Pudding ideas

- Fruit and ice cream.
- Milk pudding made with milk and dried fruit.
- Tinned or fresh fruit and yoghurt.
- Tinned/pots of rice or custard.
- Pancakes made with milk and filled with fruit.
- Yoghurt or fromage frais.

### Drinks

- Milkshakes, made with milk and fruit.
- Milky drinks such as Horlicks, Ovaltine and hot chocolate made with skimmed milk.
- Milk can be fortified by adding four tablespoons of skimmed milk powder to a pint (568ml) of milk and mixing thoroughly. This can then be used as ordinary milk in drinks or on cereals.
- Calcium-enriched fruit juice or water.

If you are following a dairy-free diet, substitute cows' milk for a **calcium-enriched** alternative such as soy, rice or oat milk. Check the label as not all are calcium enriched. These substitutes can be used in cooking.

## How much calcium do I need?

For most people, three servings of dairy foods a day will provide almost all the calcium the body needs. Breastfeeding mums need a bit extra, as do teenagers whose bones are developing at their most rapid pace. The table below should help to guide you.

Group	Age	Calcium per day (mg)	Servings of dairy foods
Infants	Under 1 year	525	Two to three
Children	1 – 3 years	350	Two
	4 – 6 years	450	Two
	7 – 10 years	550	Two to three
Adolescents	11 – 18 years	800 for girls 1000 for boys	Three to four
Adults	19 years+	700	Three
Pregnancy		700	Three
Breastfeeding mums		1250mg	Five
People with coeliac disease		1000	Five to six

## What are good dairy sources of calcium?

Product	Portion size	Weight	Calcium (mg)
Milk	One glass	200mls	200
Cheddar cheese	One matchbox	25g	200
Edam cheese	One matchbox	25g	200
Cottage cheese	Two tablespoons	100g	50
Custard (including instant and readymade)	Small bowl	200mls	200
Fruit yoghurt	One pot	150g	200
Greek yoghurt	One pot	225g	230
Fromage frais	One pot	60g	60
Ice cream	Two scoops	100g	150
Milk chocolate	One bar	56g	123

## What are good non-dairy sources of calcium (fortified products)?

Product	Portion size	Weight	Calcium (mg)
Calcium enriched soy/oat/nut/rice milk	One glass	200mls	240
Calcium fortified soya yoghurt/dessert/custard	One pot	125g	150
Soya bean curd/tofu (only if set with calcium chloride – E509 – or calcium sulphate – E516 – not nigari).		60g	200
Fortified cereal	One bowl	30g	137
Calcium-enriched orange juice	One glass	250mls	150
Calcium-fortified bread	One slice	40g	191

## Other non-dairy sources of calcium

Product	Portion size	Weight	Calcium (mg)
Prawns (shelled and boiled)		100g	150
Sardines with bones	Half a tin	60g	258
Pilchards with bones	Half a tin	60g	150
Whitebait	Small portion	50g	130
Oranges	One	200g	100
Dried apricots	Six	50g	130
Broccoli	Two spears	85g	34
Baked beans	Half a tin	200g	120
Kidney beans	Half a tin	200g	160
Spring greens	One portion	75g	56
Tahini paste	One heaped tablespoon	20g	130
Sesame seeds	Two tablespoons	20g	134
Almonds	12 whole nuts	25g	60
White bread	One slice	30g	40
Wholemeal bread	One slice	30g	20
Fortified gluten free bread	One slice	30g	35
Muesli	Medium bowlful	40g	50
Ready Brek	One bowl	40g	50

## Examples of dishes containing a good amount of calcium

### Snacks and meals

- Add dried fruit to breakfast cereal and milk.
- Salmon/sardine/ cheese in a sandwich or on toast.
- Baked beans on toast, with grated cheese on top.
- Macaroni cheese.
- Fish pie.
- Cauliflower cheese.
- Pancakes made with milk, served with savoury fillings.