

Calcium

Calcium is important at all ages for strong bones and teeth. This Food Fact Sheet lists the recommended amounts of calcium for different groups of people and the foods and drinks that are rich in calcium. It also gives you some ideas on how you might achieve your recommended intake.

You are more at risk of calcium deficiency if you:

- are on a cow's milk or lactose free diet
- have coeliac disease
- have osteoporosis
- are breastfeeding
- are past the menopause

Meals and snack ideas

- Start the day with cereal (calcium-fortified) with milk or a milk substitute (calcium-fortified).
- Use tinned sardines or pilchards (with the bones) instead of tuna in a sandwich or on toast.
- Have a stir fry including tofu, broccoli spears and chopped nuts for lunch or dinner.
- Add yoghurt/soya yoghurt to fruit as a pudding or use milk or a milk substitute (calcium-fortified) to make custard and milk puddings.
- Try a glass of low-fat milk as a snack or to help rehydrate after exercising.
- Don't forget that low-fat dairy products have as much and often more calcium than the full-fat versions.
- Remember to check non-dairy sources have added or are 'fortified' with calcium.
- Try to avoid sugary drinks and snacks. If you choose a calcium-rich food which contains sugar, it is best to eat this as part of a meal instead of as a snack.

Healthy lifestyle advice for healthy bones

- Be active – weight bearing activities are best e.g. 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.

Vitamin D and calcium

Vitamin D helps the absorption of calcium from foods. Most of our vitamin D is made by the action of sunlight on the skin. Between April and September, going outside for 15 minutes, two or three times a week between 11am and 3pm without sunscreen should be enough to produce sufficient vitamin D.

All adults and children over the age of one should consider taking a daily supplement containing 10µg vitamin D, especially during autumn and winter. A daily supplement is recommended all year round for those who are at risk of low vitamin D including: all pregnant and breastfeeding women, babies and young children, people aged 65 years and over and people with darker skin or who are not exposed to much sun.

Foods rich in vitamin D include oily fish, eggs and fortified breakfast cereals/spreads but you cannot get enough vitamin D from food alone. You may need to take a supplement if you do not get enough (safe) sun exposure or if you are over 65 years old.

Calcium supplements

Calcium supplements are available from chemists/pharmacies, supermarkets and health food shops.

If you are unable to meet your daily requirements from food, these supplements can be of use but ask your doctor for advice.

Calcium supplements are available free of charge to women and children who are eligible for Healthy Start vouchers. Ask your health visitor about this.

How to check if you're getting enough calcium in your diet:

1. Use the TABLE 1 to check how many 'calcium stars' you need.
2. Then use TABLE 2 to see how much calcium is found in different foods.
3. Then, simply add up how many calcium stars you are getting from your diet to make sure you are having enough.

TABLE 1 – Daily guideline amounts

Check how many calcium stars⁽¹⁾ you need (1 star = 60mg approx)

| Group | Age (years) | Calcium (mg) per day | Calcium stars per day |
|----------------------------|---------------------------------------------|----------------------------|-----------------------|
| Infants | Under 1 | 525 | 9 stars |
| Children | 1-3 | 350 | 6 stars |
| | 4-6 | 450 | 7 1/2 stars |
| | 7-10 | 550 | 9 stars |
| Adolescents | 11-18 | 800 (girls) 1000 (boys) | 13 stars 17 stars |
| Adults | 19+ | 700 | 11 stars |
| Breastfeeding mums | | 1250 | 21 stars |
| Women past the menopause | | 1200 | 20 stars |
| Coeliac Disease | Adults | at least 1000 | 17 stars |
| Osteoporosis | Adults | 1000 | 17 stars |
| Inflammatory Bowel disease | Adults | 1000 | 17 stars |
| | Post menopausal women and Men over 55 years | 1200 | 20 stars |

⁽¹⁾ When choosing your calcium stars – remember that high sugar intake often leads to tooth decay. It is important to avoid frequent sugary drinks and snacks for your teeth and your overall health. If you want something sugary, it is best to have it at mealtimes.

TABLE 2 – Calcium in different foods

| Calcium in dairy products | Quantity | Calcium (mg) | Stars 1 star = 60mg |
|-------------------------------------------------------------------------------------------------------|----------------------------|--------------|------------------------|
| Milk, all types | 200ml | 240 | **** |
| Cheese | matchbox-size 30g | 220 | **** |
| Cheese triangle | 1 triangle - 15g | 60 | * |
| Yoghurt | 120g | 200 | *** |
| Fromage frais | 1 pot/pouch - 45-100g | 60 | * |
| Calcium-enriched fromage frais | 1 pot/pouch - 50-90g | 125 | ** |
| Malted milk drink | 25g serving in 200ml milk | 440-710 | ***** to ***** |
| Hot chocolate (light) 20g (with water) | 25g serving in 200ml water | 200 | *** |
| Rice pudding | ½ large tin (200g) | 176 | *** |
| Custard | 1 serving (120ml) | 120 | ** |
| Milk chocolate | 30g | 66 | * |
| Non-dairy sources of calcium | | | |
| <i>Calcium fortified products</i> | | | |
| Calcium enriched milk alternatives eg. rice ⁽²⁾ /soya/oat/nut/coconut etc | 200 mls | 240 | **** |
| Soya bean curd/tofu (Only if set with calcium chloride (E509) or calcium sulphate (E516), not nigari) | 60g | 200 | *** |
| Calcium fortified soya yoghurt/dessert/ custard | 125g | 150 | ** |
| Calcium enriched orange juice | 150mls | 180 | *** |
| Calcium fortified infant cereals | 1 serving | 60-120 | * to ** |
| Calcium fortified cereals | 30g serving | 130-150 | ** |
| Calcium fortified instant hot oat cereal | 1 tbsp dry cereal (15g) | 200 | *** |
| Calcium-fortified bread | 1 slice (40g) | 191 | * to *** |
| Other non-dairy sources of calcium | | | |
| Sardines (with bones) | ½ tin (60g) | 258 | **** |
| Pilchards (with bones) | 1 serving (60g) | 150 | ** |
| Tinned salmon (with bones) | ½ tin (52g) | 47 | * |
| Whitebait | 1 small portion (50g) | 430 | ***** |
| Scampi in breadcrumbs | 6 pieces (90g) | 190 | *** |
| White bread | 2 large slices (100g) | 100 | * |
| Wholemeal bread | 2 large slices (100g) | 54 | * |
| Pitta bread/chapatti | 1 portion (65g) | 60 | * |
| Orange | 1 medium (120g) | 75 | * |
| Broccoli, boiled | 2 spears (85g) | 34 | * |
| Spring greens | 1 serving (75g) | 56 | * |

⁽²⁾Children under four and a half years old should not have rice drinks as a replacement for cow's milk, breast milk or infant formula. N.B. Spinach, dried fruits, beans, seeds and nuts are not good sources of calcium. This is because they contain oxalates and/or phytates which reduce how much calcium your body can absorb from them. You should not rely on them as your main sources of calcium.

Further information:

Food Fact Sheets on other topics including Vitamin D, Supplements and Sugar are available at: www.bda.uk.com/foodfacts

This Food Factsheet is a public service of The British Dietetic Association (BDA) intended for information only. It is not a substitute for proper medical diagnosis or dietary advice given by a dietitian. If you need to see a dietitian, visit your GP for a referral or: www.freelancedietitians.org for a private dietitian.

To check your dietitian is registered check www.hpc-uk.org

This Food Fact Sheet and others are available to download free of charge at www.bda.uk.com/foodfacts

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The information sources used to develop this fact sheet are available at www.bda.uk.com/foodfacts

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