

# Calcium and postmenopausal osteoporosis

Calcium plays a key role in bone health. Maintaining an adequate calcium intake is important throughout life, from childhood to postmenopause. But recommended dietary intakes vary worldwide.

## Calcium and diet

- The main source of dietary calcium is dairy products.
- Lactose intolerance, celiac disease and bariatric surgery affect absorption.
- For women aged over 50, the daily dietary allowance (RDA) recommended by the US National Institutes of Health (NIH) is 1200 mg.
- The UK Royal Osteoporosis Society (ROS) recommends 700 mg daily, increasing to 1000 mg in those taking osteoporosis medication.
- The Women's Health Initiative (WHI) study found an increased risk of renal stones in women taking calcium supplements.
- Supplements should be used only when dietary intake seems insufficient.

Recommended dietary intakes vary throughout life, and higher intakes are recommended during times of bone formation and by older people, up to 1000–1300 mg of calcium per day.

## Calcium-rich foods

These include:

- Dairy products (milk and cheese)
- Green leafy vegetables
- Canned whole fish with soft, edible bones such as sardines
- Nuts (almonds in particular)
- Seeds (sesame seeds in particular)
- Dried fruit
- Pulses/legumes
- Tofu
- Calcium-fortified cereals and bread

## Calcium and osteoporosis

- An adequate intake of calcium is a mainstay in the prevention of postmenopausal osteoporosis.
- It is important to get an assessment, even if only approximate, of the individual's intake of calcium.
- Supplements may be recommended where levels seem to be insufficient.
- Women should be warned that calcium intakes above the recommended levels may be useless, or may even entail harm, though this remains uncertain.

## Further information

**EMAS CareOnline 2020** <https://emas-online.org/emas-careonline>

**International Osteoporosis Foundation** <https://www.osteoporosis.foundation/educational-hub/topic/calcium>

**National Institutes of Health** <https://ods.od.nih.gov/factsheets/Calcium-Consumer>

**Royal Osteoporosis Society** <https://theros.org.uk/information-and-support/bone-health/nutrition-for-bones/calcium>