

South Warwickshire



NHS Foundation Trust

Warwickshire Dietetic Service

YOUR BODY,
YOUR BONES.



Bone is living tissue that continues to develop even after we stop growing in height.

Our bones reach their maximum density, or become strongest, around the age of 30. After the age of approximately 35, bone strength naturally deteriorates as part of the ageing process. Women have a higher rate of bone tissue loss than men, particularly after the menopause.

A healthy lifestyle throughout life is needed to keep your bones healthy.

You can help keep your bones strong by:

- Eating a healthy diet containing calcium and vitamin D
- Taking regular weight-bearing exercise
- Make changes to lifestyle such as quitting smoking and reducing alcohol intake
- Preventing falls

Food, Drink and Healthy Bones

Vitamin D and Calcium are the key nutrients for healthy bones.

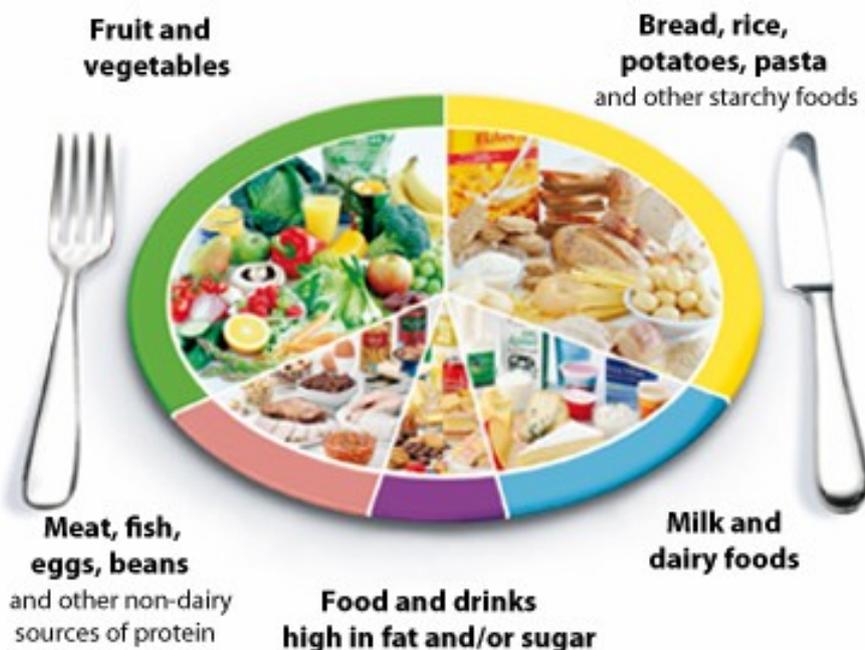
Being a healthy weight is also important for healthy bones:

- Very thin people are less likely to put on all the bone mass they need, so need to ensure that their intakes of Vitamin D and Calcium are good.
- People who go on crash diets to lose weight quickly and cut out dairy foods are also at risk of having less dense bones, as are people who take steroids.

Research on the effects of other nutrients such as vitamin C, protein and phosphorus on the bones has been inconclusive, so a healthy diet based on the Eatwell plate (see below) is recommended for everyone.

Heavy alcohol consumption is associated with decreased bone mass, so it is advisable to keep to the recommended safe levels - no more than 2 units per day for women, and 3 units per day for men, and to have several alcohol-free days each week. A unit is:

- Half a pint of beer, lager or cider
- A small 125ml glass of wine
- One glass of sherry
- One pub measure (25ml) of spirits



Public Health England in association with the Welsh government, the Scottish government and the Food Standards Agency in Northern Ireland.

Calcium

Calcium has several important functions, including helping to build strong bones and teeth.

Good sources of calcium include:

- milk, cheese and other dairy foods
- green leafy vegetables, such as broccoli, cabbage and okra, **but not spinach**
- soya beans and tofu, soya drinks with added calcium
- nuts
- bread and anything made with fortified flour
- fish where you eat the bones, such as sardines and pilchards

How much calcium do I need?

Most adults need 700mg of calcium a day. They will be able to get all the calcium they need from having 3 portions of dairy produce every day. People with Coeliac Disease, osteoporosis and women who are breastfeeding need more calcium. They will need 4-5 portions a day.

What is Vitamin D?

Vitamin D regulates the amount of calcium and phosphate in the body. These are needed to keep bones and teeth healthy. A lack of vitamin D can lead to bone deformities, pain and tenderness.

For most people sunlight is the most important source of vitamin D as it is made by our body under the skin in reaction to summer sunlight. The time required to make sufficient vitamin D varies, for example the skin of older people is less efficient at making vitamin D as is more pigmented skin.

Regularly going outside for a few minutes around the middle of the day in the UK, without sunscreen is suggested. You should stay out less than the amount of time needed for your skin to redden and burn. The more skin that is exposed, the greater the chance of making sufficient vitamin D before your skin burns. In practice, between 10 and 15 minutes in the UK summer sun, without sunscreen several times a week is probably a safe balance between adequate vitamin D levels and any risk of skin cancer. If you burn easily you will need less time in the sun. If you stay outside any longer put on sunscreen.

This advice applies in the UK, and not in hotter climates. In hotter countries, expose your skin for a far shorter time.

Your body won't make too much vitamin D from sun exposure, but always remember to cover up or protect your skin before you turn red or start to burn.

Your Body, your bones

There is no recommended intake of vitamin D in the UK for healthy people between the age of 5 and 64 as it is assumed that these people will make enough Vitamin D by exposure to summer sunshine. However, some groups have been identified at more risk of vitamin D deficiency. The Department of Health recommends that adults at risk take a Vitamin D supplement containing 10 micrograms of vitamin D.

- All pregnant and breastfeeding women
- People aged 65 years and over
- People who have low or no exposure to the sun, for example those who cover their skin for cultural reasons, who are housebound or confined indoors for long periods.
- People who have darker skin, for example people of African, African-Caribbean and South Asian origin, because their bodies are not able to make as much vitamin D.
- All babies and young children aged 6 months to 5 years should take a daily supplement containing vitamin D in the form of vitamin drops, to help them to meet the requirement set for this age group of 7.0-8.5 micrograms of vitamin D a day.
 - However, babies who are fed infant formula will not need vitamin drops until they are receiving less than 500ml (about a pint) of infant formula a day, as these products are fortified with vitamin D.
 - Breastfed infants may need vitamin D from one month of age if their mother has not taken vitamin D supplements throughout pregnancy.

You can buy single vitamin D supplements at most pharmacies and supermarkets. Women and children who qualify for Healthy Start can get free supplements containing vitamin D from their local Children's Centre.

Check the dosage carefully as too much supplemental vitamin D over a long period of time can cause too much calcium to be absorbed and can also encourage calcium to be removed from bones, which can soften and weaken them and damage the kidneys. Taking up to 25 micrograms (0.025mg) a day of vitamin D supplements is unlikely to cause any harm.

Your body, your bones

Good food sources of vitamin D

Good food sources of Vitamin D for when we don't get outside very often or during the winter are listed below.

| Food | Weight | µg Vitamin D |
|---|---|-------------------------------|
| Fortified breakfast cereal e.g. Special K, Shreddies | Small portion (30g) | 0.8 – 2.5 Check the packet |
| Semi skimmed milk | Small glass (100 ml) | Trace |
| Dried milk with vegetable fat | 2 tsp (6g) | 0.6 |
| Cheese in a sandwich | Small matchbox chunk (45g) | 0.1 |
| Tuna in brine | Portion on sandwich (45g) | 1.6 |
| Grilled salmon steak | Average portion (100g) | 7.1 |
| Grilled Mackerel | Average portion (60g) | 14 |
| Sardines in tomato sauce | 1 (25g) | 2 |
| Egg | 1 (60g) | 0.9 |
| Fortified Margarine | Thin spread on a small slice of bread (7g) | 0.5 |
| Roast beef or pork | 1 slice (90g) | 0.7 |
| Cod liver oil | 2 tsp (6g) | 12.6 |

Exercise

Adults, regardless of their age should aim to be active daily. Inactive people tend to have poorer balance and weaker muscles, and can be unsteady when walking. Exercise can help at any age.

Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more e.g. 30 minutes on 5 days a week. Comparable benefits can be achieved through 75 minutes of vigorous intensity activity spread across the week or combinations of moderate and vigorous intensity activity.

Adults should also undertake physical activity to improve muscle strength on at least two days a week. Adults at risk of falls should incorporate activity to improve balance and co-ordination on at least two days a week.

Moderate intensity activities will cause adults to get warmer, breathe harder and their hearts to beat faster, but they should still be able to carry on a conversation. Examples include:

- Brisk walking
- Cycling

Vigorous intensity activities will cause adults to get warmer, breathe much harder and their hearts to beat rapidly, making it more difficult to carry on a conversation. Examples include:

- Running
- Sports such as swimming or football
- Climbing stairs

Physical activities that strengthen muscles involve using body weight or working against a resistance. This should involve using all the major muscle groups. Examples include:

- Exercising with weights
- Carrying or moving heavy loads such as groceries
- Activities that involve stepping and jumping such as dancing

Falls Prevention

Falling is a common problem throughout our lifetime, but as we get older the risk of injury from falls gets higher. There are two main reasons why people fall.

- Having poor balance, weak legs, poor eyesight or stiff hips, knees and ankles.
- Environmental hazards such as tripping on loose carpets

There are many ways you can avoid falls.

Vision

Vision problems are among the most common causes of falls.

Having a regular eye-health check is a simple step you can take to prevent falls. People under the age of 70 should have an eye test every two years, people aged 70 and over should have a eye test once a year.

Your body, your bones



Glasses fitted with bifocal or varifocal lenses can make objects and surfaces appear closer than they really are and may cause you to trip or lose your balance, particular on stairs. If you have had problems with these glasses or are considering them, ask your optician for advice.

Medication

A person taking four or more different types of prescribed medication has an increased risk of falling. If you need to buy medicines over the counter, check with the Pharmacist that they are safe to take with your prescribed medication.

Some medicines can make you feel drowsy, dizzy or unsteady. If you are taking any medicines that affect you in this way, always tell your GP or Pharmacist. There may be alternative solutions. Never stop medication without medical advice.

Always read the labels on your medicines and follow the instructions. Do not take medicines intended for anyone else. If you are unclear about how to take your medication or what they are for, ask your GP or Pharmacist. You should also speak to your GP or Pharmacist if you have difficulty in remembering when to take your medicines.

If you have any medication you don't need any more or have expired, take them to the Pharmacist to be disposed of safely.

Home Environment

Most falls happen within the home. These tips may help you prevent a fall:

- Make sure that walkways are kept clear and clutter free.
- Make sure stairs are well lit and avoid cluttering stairs with items to take up.
- Make sure wires are secured to walls and skirting boards, not loose and trailing.
- Loose mats should be avoided but if they are needed, secure down with double-sided tape or a non-slip backing.
- Put everyday items in easy-reach cupboards and cabinets to prevent over-reaching.
- Mop up spills on slippery surfaces as soon as they happen.
- Consider non-slip matting near the sink, washing machine or bath/shower.
- Consider a grab rail to the wall over the bath, in the shower and/or next to the toilet.
- Have a friend or family member change a burned out light bulb.
- Use a nightlight so you can see where you are walking when you need the toilet during the night.

PALS

We offer a Patient Advice Liaison Service (PALS). This is a confidential service for patients and their families to help with any questions or concerns about local health services.

You can contact the service by direct telephone line on 01926 600054 or using the phone links which are available in both hospitals or calling in at the office located in the main entrance at Warwick Hospital.

Our information for patients can also be made available in other languages, Braille, audio tape, disc or in large print – please contact our PALS office.

As a key provider of healthcare and as an employer, the Trust has a statutory obligation to promote and respect equality and human rights. This is set out in various pieces of legislation including: Race Relations (Amendment) Act 2000, Disability Discrimination Act (2005), Sex Discrimination Act (1975) and Age Discrimination Act (2006).

If you have any queries about your diet, please contact us:

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