



Clinic Newsletter

Bone Care!

Bones are made of several different materials and structure types:

- dense, outer cortical bone, replaced slowly every 10 years
- inner, spongy trabecular layer, replaced every 2 or 3 years (wrists and hips contain a lot of this due to their complex shape, making them more vulnerable to fracture)
- a framework of collagen which gives flexibility
- calcium and phosphorus crystals for strength

Bone is living tissue which is constantly being broken down and replaced. Several factors including diet, hormones and medications influence how well your bones are replaced. Osteoporosis occurs when bone loss is excessive and the bones become filled with tiny holes which make them increasingly fragile.

Bone responds well to exercise - putting pressure on your bones via weight-bearing exercise (brisk walking, running, tennis, badminton, stair climbing, aerobics) and by keeping muscles strong so that they also pull on your bones - encouraging your body to build bone. (Astronauts lose bone density very quickly due to weightlessness in space).

However, a lot of exercise, particularly in young women, must be balanced by good diet as building muscle and bone

requires nutrients meaning that if the diet is inadequate the bones may not be built strong enough. Also, very slim women with very little body fat may have low oestrogen levels which may impair bone metabolism.

If you are worried about your bone density, you can ask your GP to refer you for a DEXA bone density scan which will give a reading of the state of your bones.

You can also have a bone turnover analysis test which measures certain chemicals in your urine. This is accurate enough to predict fracture risk and can be done at 6 month intervals to monitor if treatment/diet changes/exercises are working. This test costs about £60 and can be taken at our clinic. Please ask for details.

Julia Williams

MEng. BSc(Hons)OstMed
ND MRN

Osteopath • Naturopath
Cranial Osteopath

Centre of Wellbeing
Chambers House
Moffat
DG10 9ED

Tel: 01659 74393
Mob: 07966 243459
juliaosteopath@mac.com
www.juliawilliams.co.uk

121 Harley Street
London
W1G 6AX
07774 807474

Osteoporosis Recommendations

Have your bone density **monitored** if you are worried or at risk.

If you have osteoporosis you may need to take **medications** alongside the following recommendations

Take plenty of weight-bearing **exercise**

Stop **smoking** (there is a lot of evidence that smoking weakens bones and teeth)

Eat plenty of **good fats** (fish, nuts and seeds, olive oil)

Make sure you are not underweight

Avoid **fizzy** drinks, **caffeine**, sugar and alcohol (these all reduce calcium absorption)

Eat plenty of **vegetables** (these contain **magnesium** which is required for calcium absorption) but avoid spinach and rhubarb

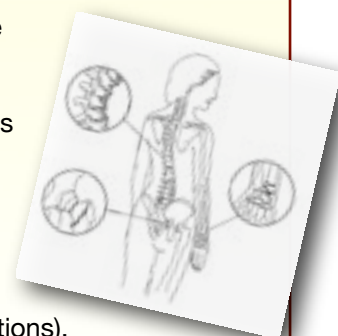
Do not eat too much animal protein (meat) as this uses up **calcium** in its digestion (vegetarians have lower risk of osteoporosis)

Eat plenty of **phytoestrogens** which help balance hormones and increase bone (soya, lentils, chickpeas, vegetables, bean sprouts). Please ask in clinic for more information on these foods.

Try a tea of nettles and horsetail which helps boost calcium and silica. **Silica**

reduces bone loss and strengthens bone and nails

Take a good **bone supplement** (ask in clinic for recommendations).



Cramps - avoidance & treatment

Cramps are unpleasant, often painful, sensations caused by contraction or over shortening of muscles. It usually occurs in one of the calf muscles, below and behind a knee. The small muscles of the feet are sometimes affected. A cramp pain typically lasts a few minutes. In some cases it lasts just seconds, but in some cases it can last up to 10 minutes. The severity of the pain varies. The muscle may remain tender for up to 24 hours after a leg cramp. Leg cramps usually occur when you are resting - most commonly at night when in bed. (They are often called night cramps.) They may wake you from sleep. It can become a distressing condition if your sleep is regularly disturbed. In most cases the cause is not known. One theory is that cramps occur when a muscle that is already in a shortened position is stimulated to contract. As the muscle is already shortened, to contract further may cause the muscle to go into spasm. This commonly happens at night in bed as the natural position we lie in is with the knees slightly bent (flexed), and with feet pointing slightly downwards. In

this position the calf muscle is relatively shortened and prone to cramps. This theory explains why stretching exercises may cure the problem. In some cases, the cramps may be a symptom of another condition or problem. For example:

- Some medicines can cause cramps as a side-effect, or make cramps occur more often. Including: diuretics ('water tablets'), nifedipine, cimetidine, salbutamol, terbutaline, lithium, clofibrate, penicillamine, phenothiazines, and nicotinic acid.
- Over-exertion of muscles.
- Dehydration.
- Conditions that cause alterations in the balance of salts in the bloodstream (such as a high or low sodium or potassium level).
- Pregnancy - usually in the later stages.
- An untreated under-active thyroid gland.
- Peripheral vascular disease (narrowing of the leg arteries which causes poor circulation).
- Excess alcohol.

Make sure **bed clothes** are not too heavy or tight, restricting movement or position of your legs and feet.

Stretch the affected muscles daily. E.g. for calf muscles, stand about 2 feet away from a wall and lean forwards against the wall keeping your heels on the ground to feel a stretch down the back of your leg. Hold for 20 seconds, repeat 10 times.

Consult your GP about your **medication** if you think that may be a factor.

Tonic water contains **quinine** and this may help. Take a glass (250mls) each night.

If you take a lot of exercise and sweat a lot, especially if you follow a very healthy diet, you may be low in **salt**. Try adding salt to cooking water and/or to your food.

Magnesium is important for relaxation, including muscle relaxation. Magnesium is found in vegetables, apples and nuts. It is also easy to take a supplement.

Eating foods high in **potassium** can help prevent muscle cramps. Foods with high sources of potassium include, in order from highest to lowest: avocados, bananas, broccoli, soy-beans and apricots, although it is also common in most fruits, vegetables and meats.

Leg cramps may also be due to **vitamin D** deficiency (also needed for calcium absorption). Decreased sun exposure, particularly in those with darker skin tones, means that vitamin D deficiency is widespread. Correcting this deficiency will in many cases also eliminate, or reduce, frequency of leg cramps. Dietary sources include oily fish and eggs.

Julia Williams
MEng. BSc(Hons)OstMed
ND MRN
Osteopath • Naturopath
Cranial Osteopath

Centre of Wellbeing
Chambers House
Moffat
DG10 9ED

Tel: 01659 74393
Mob: 07966 243459
juliaosteopath@mac.com
www.juliawilliams.co.uk

121 Harley Street
London
W1G 6AX
07774 807474



SAFE IN OUR HANDS CERTIFICATION MARK

The Certification Mark 'Safe in our hands' shows that osteopaths are registered with the General Osteopathic Council. The title 'Osteopath' is protected by law in the UK. The General Osteopathic Council (GOsC) was set up under The Osteopaths Act 1993 and is one of the 13 UK health and social care statutory regulators. The regulators are set up to protect the public so that whenever a member of the public visits a health or social care professional, they can be sure they meet the required standards.