



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 makes them increasingly fragile. If not prevented or if left untreated, osteoporosis can progress painlessly until a bone breaks. These broken bones, also known as fractures, occur typically in the hip, spine, and wrist.

A hip fracture almost always requires hospitalization and major surgery. Spinal or vertebral fractures also have serious consequences, including loss of height, severe back pain, and deformity.

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 extremely 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

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

Centre of Wellbeing
Chambers House
Moffat
DG10 9ED

52 Harley Street
London
W1G 9PY

☎ 07966 243459
juliaosteopath@mac.com
www.juliawilliams.co.uk

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.

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 it's digestion (vegetarians have lower risk of osteoporosis)

Eat plenty of **phyto-oestrogens** which help balance hormones and increase bone (soya, lentils, chickpeas, vegetables, beans sprouts).

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 the 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 knees slightly bent (flexed), and with the 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'), nifedipene, 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 un-treated underactive thyroid gland.
- Peripheral vascular disease (narrowing of the leg arteries which cause poor circulation).
- Excess alcohol

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

Stretch the affected muscles daily. eg. for calf muscles, stand about 2 feet away from the 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 (250 mls) 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, apricots and nuts. It is also easy to take as 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, Soybeans and Apricots. 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).



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.