

Do you want to find out how you can prevent getting knee pain?

By James Bone

Knee pain is a major problem especially for people over 50. Knee pain can come in many forms, but arthritis is one of the major factors – knee arthritis being one of the commonest forms of arthritis. Other problems may include anterior knee pain related to the knee cap, problems with the ligaments and support mechanisms, problems with the inner knee structure called the meniscus (which helps to reduce knee stress), injury, and even one's stress and emotions may have some influence on knee pain.

Two Simple things you can do to HELP

I would like to share with you 2 simple things you can do to help prevent or ease your knee pain. (CARE – if you have serious knee problem you need to see your doctor, physio, or health practitioner for guidance.)

One – Reduce stress on your knee joints

You can do this by staying AWARE of your normal movement habits:

- Listen to how you walk, run jump, or step down – do you come down with a loud “clunk”? This can indicate too much joint impact.

Lighten up and step with more quietness and your knees will thank you.

When walking or running, be careful not to over stride.

When stepping down, use your muscles to control the movement - muscles are natural shock absorbers.

When jumping, bend your knees to absorb the force.

- When bending the knees to go up a step or to squat down – keep the weight towards your heels and avoid the knee coming forward of your toes – this can greatly reduce knee strain.
- When stretching or practising yoga, be careful not to twist your knee or stress the sides of the knees. The knee is primarily a hinge joint – meaning it mostly bends and straightens. Twisting movement needs to come from the hips – so be careful if your hips are tight. If hips are tight, then do knee stretching only in safe ways ie avoid Hurdlers Stretch. You can help protect the knees by using the “foot lock/Bandha”.

TIP - to activate Foot Lock – slightly push your foot down and at the same time flex your toes up – feeling how the muscles lightly tighten around your ankle and knee to provide support.

- Avoid locking your knees backward when standing – this lazy action places great stress on the knee – keep knees unlocked with tone in your thighs, ready for movement.
- Practise good alignment – misalignment may stress the knee cartilage or other structures. Check yourself – do your kneecaps turn inward; do your arches collapse inward; do your knees appear misaligned?

You can help correct this using your hip muscles or foot arch muscles. Maintain the weight even on your feet – inside and outside, ball and heel. Then lengthen your toes and press the tips to the floor- can you feel the inner arches lift? Does this help correct the knee alignment? If needed use the muscles at the front and rear of the inside ankle (called Tibialis Posterior and Anterior) to help lift the inner arch. Be careful not to roll the weight to the outside of the foot.

You may find using the outward rotators of the hip also help to bring the knee more aligned, especially if the knee is bent, as when you lunge forward for Hero 1 or 2 (Virabhadrasana 1 or 2), or squat down, or get in and out of a chair. Seek guidance from a physio if you are not sure what to do.

The opposite can occur where the knees roll outward too much, as occurs with “duck feet”. “Turn out” problem can stress both knees, the foot arches and the big toe joint, leading to increased risk of bunions. This problem may occur due to tightness of the outer hip muscles, or the Iliotibial band (a long tendon like structure, which extends down the side of the thigh), tight calves, or weak inward rotators of the hips. Seek guidance from a physio to help correct this problem.

Two – Keep your support muscles strong

A Systematic review (a study which looks at all the research on a particular topic) has shown that the most important thing you can do to help prevent and relieve knee pain is exercise, especially related to arthritis. Having strong muscles to support the knee can act as shock absorbers and seems to protect the knee from strain and help prevent pain, especially for something like arthritis.

Research also suggests that the best time to exercise is when your problem is minor to moderate. Start early when you are just getting symptoms, rather than leaving it to when the problem is severe. It is more difficult to get good knee pain relief, when the problem is severe – this unfortunately is when surgery is needed. However, the right exercise, supervised by your therapist can still help your knee even when severe.

There are many exercises you can use to help strengthen your knees and lower limbs – the KEY thing is to monitor that you are doing the right exercise, in the right way, at the right time – in other words STOP any exercise which aggravates your knee or pain and seek guidance.

Exercises can include:

- Non Weight Bearing (sometimes called open chain exercise)– where the knee moves without your body weight going through it, such as sitting and straightening your knee, laying on your back and raising the straight leg, knee extension, hamstring curl, etc. This type of “back to basics” exercise is good to correct muscle imbalances, and do if you have a little knee inflammation or pain.

AVOID all knee exercise if you have severe knee swelling, until you check with your doctor or therapist.

This is also a good way to activate the inner knee muscle called Vastus

Medialis Obliquus (VMO), which is part of the thigh (Quadriceps muscle) – dysfunction of this muscle is often associated with knee pain, especially anterior knee pain.

- Weight Bearing Exercise (sometimes called closed chained exercise)– where the knee movement includes body weight, such as when to go from sitting to standing, squatting, lunging, walking, or balancing on one leg. This type of exercise is more functional and helps to strengthen muscles in co-ordination with each other.

Many yoga exercises are this type of exercise eg Hero 1 and 2 (Virabhadrasana), Chair Posture (Utkatasana), Tree (Vrkshasana), Dancer (Natarajasana), etc. The KEY with yoga is to perform the practices with awareness and control – flexibility may be helpful, but strength and control is what research shows gives people the most benefit from knee pain.

More care needs to be taken with Weight Bearing exercise if there is knee pain or swelling – usually it just needs some adjustment, re-alignment or re-activation of key muscles, so the action can be performed with minimal pain or strain.

Knee Arthritis and related knee pain and many other lower limb problems is a growing problem in our society, which often needs management and exercise for the long term. We are planning to develop special Yoga and exercise classes for the knee, arthritis and lower limb problems to teach and encourage good lower limb function for life. If you would be interested in these classes let us know.

REMEMBER – to get the best benefit you should start exercising when your problem is only minor to moderate – act early to prevent problems later

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