

## **Patient Resource: Knee Osteoarthritis**

### **So you've been diagnosed with knee osteoarthritis...What now?**

#### **What exactly is osteoarthritis of the knee?**

Osteoarthritis is degeneration of the knee joint surfaces with associated inflammation. Normal knee joint surfaces are smooth and congruent with a cushioning and shock absorbing cartilage. In an osteoarthritis knee the cartilage wears down reducing the shock absorption of the knee joint and the joint often loses its smooth shape due to wearing of the bone ends, and in the later stages osteophytes (bony processes) may form which further reduce knee congruency. The inflammation and swelling can explain why you may feel the aching pain in your knee. The wearing of the cartilage can explain why you might feel crepitus (grinding) in the knee and may have lost range of joint movement and also contribute to pain due to the pain sensitive lining of the bone.

#### **Why did I get it?**

- You may have had an injury to the knee earlier on in life which predisposes your knee to overloading forces.
- You may have been involved in a high impact sport that placed a lot of force through the knee joint.
- You may be carrying excess weight which may be increasing the load through the knee joint.
- You may have suboptimal lower limb bio-mechanics which cause you to load certain structures in the knee joint.
- Or you may have a combination of the above.

#### **What do I do now?**

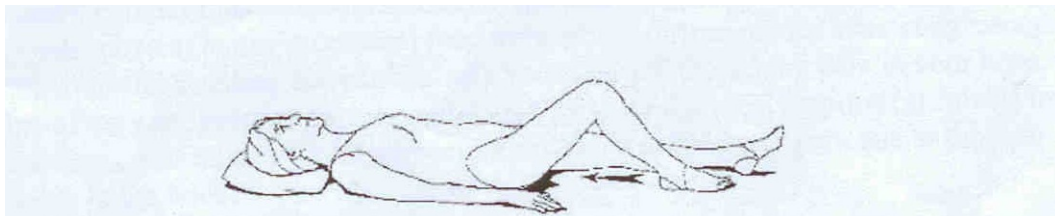
- Keep as active as you can by modifying what you do. For example stay involved in physical activity however engage in activities that are lower impact such as swimming or cycling.
- Look into optimising your weight if you fall outside a healthy weight range (staying active will help you do this).
- A physiotherapist can help prescribe a strength program for you to minimise muscle wasting and stiffening of the knee.
- Make an appointment to discuss a management plan with your local physiotherapist.

#### **What can a physiotherapist offer me in terms of treatment?<sup>1</sup>**

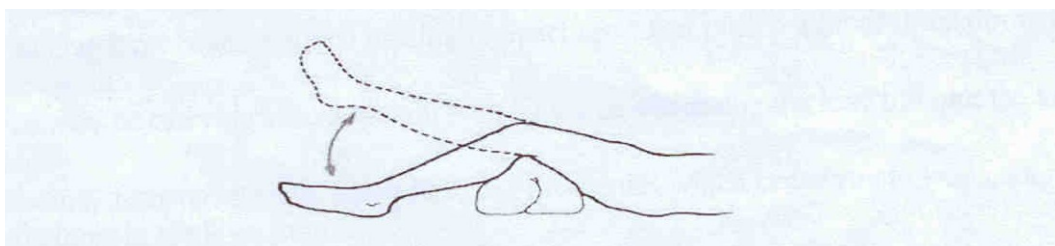
- exercises to improve strength, range of movement and balance
- hydrotherapy
- education
- the use of crutches or other walking aids
- activity and lifestyle modification advice
- bio-mechanical correction
- soft tissue massage
- weight loss advice where appropriate
- electrotherapy (e.g. ultrasound)
- taping
- the use of a knee brace or compression bandage
- joint mobilisation
- ice or heat treatment

Examples of exercises that may help you with maintaining your range of movement and knee strength.

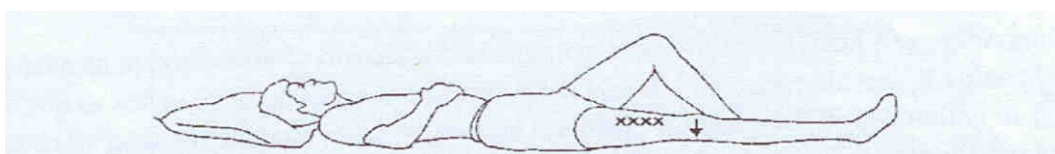
**1. Heel slides:** with gentle pressure in your heel, slide your knee towards your buttock as far as you can.



**2. Quads over a roll:** with a rolled towel under your knee, keeping gentle pressure on the back of your knee into the towel, lift your heel up until your leg is as straight as you can get it, hold this for 5 secs then control back down.



**3. Static quads:** straighten your knee as much as you can, imagine your trying to touch the back of your knee to the floor, hold this for 5-10 secs then relax and repeat.



**4. Straight leg raise:** draw your navel to spine to support your lower back then straighten your leg as you did in exercise 3 and lift your leg up off the floor (about 40 degrees) hold for 5 secs then lower down with control.

