



Centre For Sports Medicine and Orthopaedics

THE MANAGEMENT OF ANTERIOR KNEE PAIN

What is Anterior knee pain?

Pain coming from the front of the knee

What is the problem exactly?

The problem usually relates to excess pressure on the kneecap joint, either by overloading or by maltracking/malpositioning of the kneecap as it glides through the range of bend. Other less common conditions can also produce pain in the front of the knee. These will have been discussed with you at the time of your consultation.

What activities load the kneecap joint?

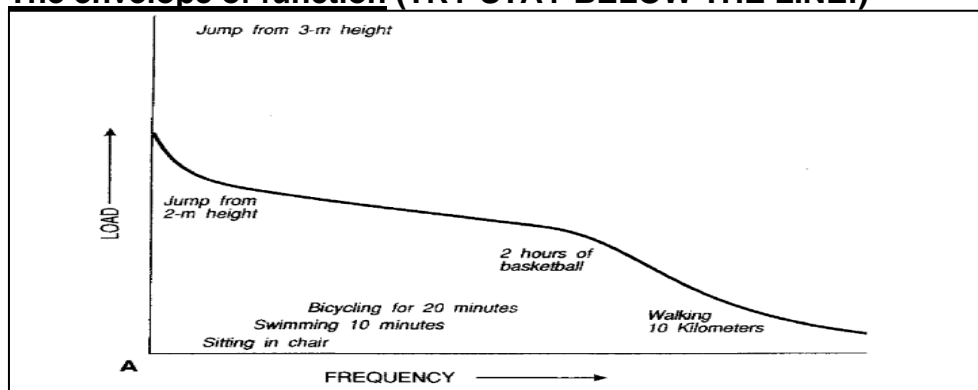
The more resistance and bend there is on the knee, the greater the forces on the kneecap.

Repetitive activities that load the kneecap with less force can also cause an accumulative effect and cause the same problem.

Some basic concepts

- **IF IT HURTS DON'T DO IT!**
- **IF IT HURTS AFTER A LOT OF A CERTAIN ACTIVITY, HAVE A PERIOD OF REST AND THEN DO LESS THAN BEFORE!**
- **IF YOUR KNEE IS SWOLLEN OR THERE IS SIGNIFICANT CRUNCHING/GRINDING, DON'T CARRY ON AND CONTACT YOUR SURGEON/PHYSIOTHERAPIST**
- **IF THERE IS A LIFT, CATCH THE LIFT RATHER THAN WALKING (OR RUNNING) UP STAIRS**
- **AVOID PROLONGED DRIVING. IF IT IS YOUR LEFT KNEE TRY AND DRIVE AN AUTOMATIC CAR IF POSSIBLE**
- **IF YOU HAVE TO DRIVE FAR, GET OUT AND STRETCH OCCASIONALLY.**
- **ALWAYS BOOK AISLE SEATS ON PLANES/MOVIES ETC**

The envelope of function (TRY STAY BELOW THE LINE!)



This diagram summarises the basic points that have been outlined above. If the activity carries on for too long or it loads the kneecap joint excessively, then it will fall above the envelope of function and will hurt or cause problems like swelling, catching, locking or giving way.

What should you do?

Below is a table which is a rough guide to help you manage with your problem.

This is another way of saying, keep your activity regime below the “envelope of function”

The first level of activity (LEVEL A) puts the most load onto your kneecap joint. The lowest level of activity (LEVEL D) puts the least pressure on the kneecap joint.

If you should experience symptoms while carrying out activities in one level, move to the next one down. If the symptoms persist, or are associated with swelling, catching or locking, then consult your surgeon or physiotherapist.

LEVEL A

All twisting, turning, pivoting sports. These include all the ball sports. Shear force, bending and impact occurs. Direct blows also occur which can cause further problems.

LEVEL B

We now exclude the ball sports, ie twisting and turning, we can still have impact, direct loading.

Examples are: running, sprinting, squatting, lunging, cross-country running. The running produces impact, and loading but no sideways shearing of the joint

LEVEL C

Now we exclude the impact sports like running and stick to smooth activities such as: cycling/rowing/walking/swimming.

These are straight-line activities and do not involve impact, twisting or turning.

LEVEL D

This is essentially a non-active program. This will involve daily activities such as standing, walking, work etc. The next level down would be complete rest of the knee.

REMEMBER! The above is only a guide – some patients may find that they can do some activity in level A but not in level B