Treading Lightly

As the London marathon approaches, the number of runners with knee problems increases, says Howard Ware, director and consultant orthopaedic surgeon of The Wellington Knee Unit

In most cases, running is a safe sport, as far as the knees are concerned. There is no evidence that running damages the knee joint, and where there are problems, there is very little that a period of rest or proper rehabilitation will not cure.

However if there is an underlying problem with the knee, such as osteoarthtis, then running can make it worse, and the joint can deteriorate faster than normal.

OVERUSE

Most of the problems we see are 'overuse', a muscle or tendon has been strained and inflamed causing pain. In many cases this will respond to simple therapy, and if rest and ice doesn't work then anti-inflammatories can be used, as can a course of physiotherapy. Surgery is often avoided with knee injuries as, apart from specific cases, results can be poor.

A common complaint seen in runners relates to the iliotibial band, a structure running down the side of the leg which can become inflamed as it rubs on the adjacent muscles. This can cause pain and tenderness, and can be diagnosed by an MRI or ultrasound. Treatment is through physiotherapy, or for more serious cases, an entirely safe ultrasound guided steroid injection.

Another common complaint seen in runners is anterior knee pain, caused through inflammation, or overuse of the tendons. The area will be tender, and in most cases the pain comes on when exercising, but is fine during other normal activities. Other runners might find they have more pain going up a slope, or stairs, which could indicate problems with the patella. Both of these problems can usually be treated with physiotherapy. Other causes of anterior knee pain is the 'fat pad impingement syndrome', which sees a large expanse of fat just behind the knee joint become inflamed and sore; it is often treated with a steroid injection.

AGE FACTORS

In younger people, typically in the early teenage years, where the bone is still growing, one of the growth centres may be affected causing pain; this can affect one or both knees. In this case, if rest and rehabilitation are ineffective then there is nothing that can be done. In most cases the pain settles when skeletal growth ends.

As we get older the meniscus - **cartilage tissue which acts like shock absorbers** - becomes more brittle and is thus more susceptible to a tear. If the tear is small, and relatively painless while training, then it may be possible to carry on. However, if the symptoms are more mechanical, then surgery may be required. This involves a minimum recovery of six weeks before returning to training.

BONE DAMAGE

Running, or indeed any exercise, can cause phenomena called 'bone oedema'. Any one, or more, of the three bones that form the knee joint can be affected. The symptoms vary from severe pain to a dull ache, and pain is often continuous. Occasionally if regular analgesics are ineffective in treating it, other drugs such as bisphonanates are injected intravenously.

Running can also produce injuries to the knee ligaments, they are often damaged following a significant injury, such as a bad fall, and not due to the training itself. Sometimes the patient presents with a swollen knee, as the result of some irritation of the joint or a build up of fluid. Anti-inflammatories will calm the knee down, and occasionally the fluid may have to be removed.

Remember that pain may not be due to a problem in the knee, and could indicate a problem in the hips, spine or ankles.

Most athletes know that many conditions will settle with rest, ice, and time. If there has been a clear injury, or pain persists, then further assessment by a specialist knee surgeon is advisable.

GP SESSIONS: EXERCISE AND THE ELDERLY

Dr Lisa Anderson takes a quick look at some of the key things to be aware of when working out

Exercise should form an important part of all our lives, and exercise as we get older is as equally important as when we are young. Increasing age can bring musculoskeletal problems such as pain and disability and unless some form of exercise is maintained, the muscles weaken and muscle mass is lost. Pain in any muscle group can be associated with a much as 25 percent muscle loss.

There are three types of exercise:

1. **Corrective** – these exercises are usually designed by physiotherapists and concentrate on those muscles in the body that provide core stability. Other good corrective exercise programmes are yoga and pilates.
2. **Resistance** – this uses weights and in the elderly population is of limited value and may actually cause more damage to the muscles.
3. **Cardiovascular** – in the elderly target pulse and blood pressure should be set, and this form of exercise should be carried out with care - as it may make both the pain worse, cause tiredness and not improve fitness.

When designing an exercise programme for an elderly person, it is important to take a full medical and medication history, start slowly and combine activity with enough rest periods.

For further information please visit
The Wellington Hospital www.thewellingtonhospital.com
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