MENISCUS INJURIES

Previously thought to be uncommon in runners, the advent of MRI scans has improved the ability to diagnose the problem, and thus turned it into one of the top 5 knee conditions diagnosed in runners.

Unlike the football or basketball players who sustain meniscus tears through a sudden twist, runners injure their meniscus simply by loading them too much over the many miles they run. Frequently, the damage is that of degeneration to the medial meniscus, which may result in loss of ability of the meniscus to absorb shock, and eventually to tears in the meniscus.

Treatment measures involve strengthening of knee support muscles, and reducing impact forces at the knee. This may mean running less, and/or running on softer surfaces or a treadmill rather than on road. There is some evidence that running with less of a heel strike, and more or a midfoot strike, may result in less impact forces at the knee. In cases where the damage to the meniscus is significant, surgery may be required.

CONCLUSIONS

As long as people run, there will be running injuries.

References.
1. Incidence Of Training-Related Injuries Among Marathon Runners. Maughan RJ, Miller JD. Br J Sports Med. 1983 Sep;17(3):162-5
2. A Retrospective Case-Control Analysis Of 2002 Running Injuries. J E Taunton, M B Ryan, D B Clement, D C McKenzie, D R Lloyd-Smith and B D Zumbo. Br J Sports Med 2002;36:95-101

A full assesment by our specialists is recommended before any treatment.

For inquiries or appointments, please contact

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Knee Injuries in Runners

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The Knee

joins the thigh with the leg and is the largest and most complicated joint in the human body. It supports nearly the whole weight of the body and is the joint most vulnerable to both acute injury and the development of osteoarthritis.

A survey done on runners preparing for a marathon revealed that,

58% of runners incurred some form of injury while preparing for the race

Almost all involved the lower limb, with about 32% affecting the knee (1).

In another study on running injuries in Canada in 2002,

the most frequently injured part of the runner was once again the knee (42.1%)

followed by the ankle/foot (16.9%) and the lower leg (12.8%) (1).

No one should be surprised at these statistics. The majority of us folk run for fitness, for fun, to get our "runner's high" fix, or to relief stress. Then there are those who do the marathons and races.

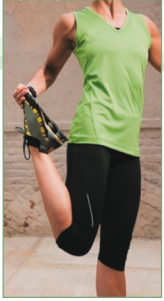
The common denominator in all of this is the weekly hours of "chugging along" that every runner goes through for miles and miles. Added to the fact that impact forces on our heel, going on to our knees, are about 2 to 3 times our body weight during each step we run, it is easy to see where the stress on our legs comes from.

To further compound things, there are runners who have too much, or too little pronation, too low or too high foot arches, one leg shorter than the other, muscle imbalances and stiffness.....the list goes on.

Getting to the bottom of a running injury is not always easy, since the factors leading up to it are often subtle, and may only manifest as an injury after many, many miles of running.

"RUNNER'S KNEE"

In most surveys on running injuries, the condition commonly known as "runner's knee" tops the list. In the survey by Taunten, it was present in 38% of injured male runners and 68% of female runners.



You may hear your doctor or physiotherapist referring to runner's knee as "Anterior Knee Pain" or "Patello-Femoral Pain Syndrome". In some cases, your doctor may use the term "Chondromalacia Patellae".

There is very frequently a biomechanical cause. Most often, there is excessive lateral (outward) tracking of the knee cap (patellar) which may be related to tight lateral thigh structures or poor muscle control at the hip.

When combined with the frequent and repetitive usage of the knee during running, this results in pain and eventually wearing out of cartilage over time.

Excessive lateral pull (yellow arrow) on the knee cap is a frequent cause of knee pain in runners

TREATMENT OPTIONS

- In the short term, resting, icing, use of a knee support and anti-pain/inflammation medication.
- A proper biomechanical examination should be carried out by a sports doctor or physiotherapist to determine if there are other correctable factors. Causes of abnormal tracking of the knee cap need to be addressed.
- Common long term measures include training of the inner quadriceps and hip muscles and stretching of the outer structures.
- Running shoes appropriate to the foot-type; motion control or stability shoes for flat-footed runners, and cushioning shoes for high-arched runners. Customised insoles may be necessary for some runners.
- Modification in the training programme may be needed to incorporate reduced running reduced mileage and progression and more cross-training and strength sessions.
- If there is cartilage damage, this may need to be evaluated further with MRI scans. More severe cartilage damage may require surgery. Milder cartilage damage can be treated with "lubricant" injections (termed "visco-supplementation"). Newer treatments such as using Platelet-Rich Plasma also show some promise.

ILIO-TIBIAL BAND (ITB) FRICTION SYNDROME

Aside from Runner's knee, this is probably the most common knee condition in runners.

The ITB is a long tendon running down the entire side of the thigh from the hip to the knee. It may be irritated as it rubs back and forth against the bone at the side of the knee, while the knee is flexing and extending during running. Pain is felt at the outer side of the knee and is typically worse on running downhill, or running along a cambered road. Tightness or weakness of the buttock muscles may contribute to the injury.

It is frequently related to runner's knee as the tight ITB can be a cause of excessive lateral pull on the knee cap.

Treatment involves resting and icing in the early stages, as well as specific stretches for the ITB and gluteus muscles. As with runner's knee, biomechanical factors need to be identified and addressed in order to obtain lasting relief.