



# runner's knee

## Major muscles and tendons

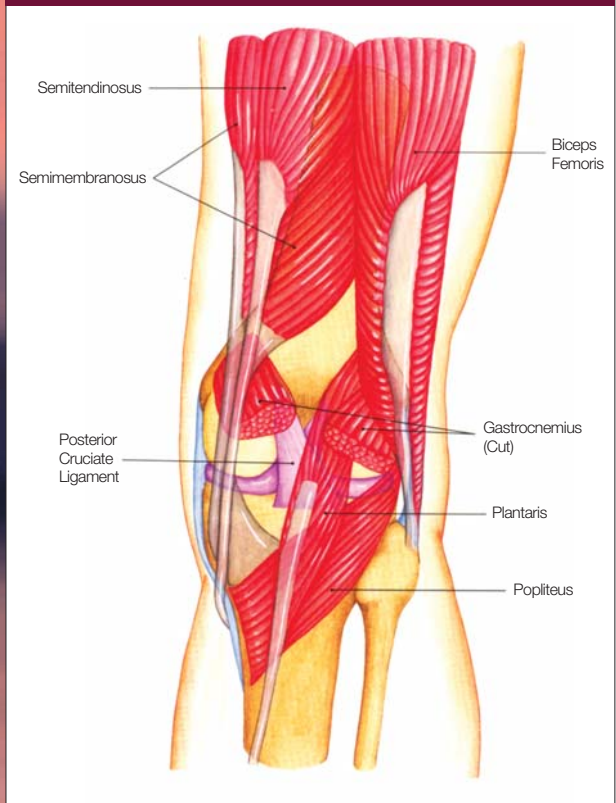


Chart: Chartex Products International Ltd

To re-strengthen the glut med muscle, stand on your painful leg on a block (a telephone directory is ideal). Keeping both legs straight, 'hitch' your hip lifting your leg upwards as though 'shortening' your leg. You should feel the muscle tightening over the outside of the hip. Hold this contracted position for 20-30 seconds to build muscle endurance.

### How it feels

Initially there is no pain when you start running, but the pain comes on 15-30 minutes into the run. Pain is normally on the outside of the knee, and feels like a dull ache, sometimes slightly burning. You may also get pain coming down stairs (but rarely going up) and when crossing your legs for a long time.

### How it happens

Along the outside of the leg there is a structure called the ilio-tibial band (ITB) stretching from the hip to just below the knee. The ITB passes over a small knobble of bone on the outside of the knee joint. When the ITB is tight, it can flick over this knobble like a guitar string giving clicking, slight swelling, and increasing pain. The real cause is muscle imbalance, consisting of tightness of the ITB and weakness of the outer hip muscles – gluteus medius.

### How to treat it

Initially you must rest from running to allow the inflammation to die down. While resting, you have a chance to correct the muscle

imbalance. Stretch the ITB and re-strengthen the glut med. The best way to stretch the ITB is to lie on your side with your painful leg on top. Lift your leg up (abduction) and bend your knee without allowing your leg to move forwards (flexion). Keeping the under side of your trunk pressed on to the floor, allow your painful leg to lower downwards to stretch the outside of the hip.

### How to prevent it

Make sure you don't miss out stretches for your abductors (outer hip muscles), and ensure that if you perform squats or lunges in the gym your knee passes over the centre of your foot avoiding a knock knee position. If you have flat (pronating) feet buy an anti-pronation shoe or use an orthotic. **UF**



Christopher Norris is a Chartered Physiotherapist who holds a masters degree in sports science. He has a postgraduate certificate in orthopaedic medicine, a certificate in occupational health physiotherapy, and an advanced certificate in Traditional Chinese Acupuncture. He has over 20 years' experience treating soft tissue injuries, and specialises in sports injuries and exercise therapy.

He is the author of six physiotherapy books including a textbook on sports injuries which is a core text on many physiotherapy and rehabilitation courses across the world. His recent book and accompanying CD 'Back Stability' have received rave reviews on both sides of the Atlantic. He has produced two further exercise CDs and two exercise videos. Chris runs two private clinics and is a physiotherapy consultant to several blue-chip industries. He is an external university lecturer and lectures regularly for the British Association of Sports Medicine. He runs back stability and muscle imbalance courses at hospitals and universities in the UK and USA. An active sportsman, Chris is a blackbelt in Ju Jitsu and a coach for the World Ju Jitsu Federation (WJJF).