

The term sciatica suggests pain travelling down the back of the leg. Not all pain referred down the leg is from the sciatic nerve coming out of the lower spinal cord. Other structures can produce leg pain such as the joints that move one vertebra relative to the other (facet joints), the sacroiliac joint, and soft tissue structures supporting the spine called ligaments. It is important, therefore to establish the signs and symptoms of the leg pain (site and spread of pain, onset and duration of symptoms, pain behaviour-aggravating and relieving activities) as well as the relevant accompanying history such as occupation(eg. sedentary, involves driving, manual labour) and leisure activities. Sport specific questions would include frequency and intensity of training, change in training schedule and equipment.

Back pain is a common overuse injury in cycling. It is important to consider the bicycle as well as the rider. Sometimes minor equipment adjustments are often all that is necessary. In most cases however, abnormal biomechanics in the cyclist as well as mechanical adjustments in the equipment need to be jointly looked at in order to solve the problem.

Taking the example of the sacroiliac joint that can refer pain down the buttock and back of the thigh, sacroiliac joint pain is usually related to a unilateral loading, where the impact forces on the single leg are transmitted through the hip and the sacroiliac joint. Lower back dysfunction, differences in leg length and knee cap position, abnormal foot arches, and abnormal ratio of hamstring/quadriceps strength and flexibility are only some of the biomechanical features in a cyclist that need consideration when looking at symptom causation and treatment strategy. Mechanical adjustments in the case of leg pain that need consideration are saddle height and seat position (move forward),

changing to handlebar with less drop (randonnnneur), shortening the stem extension and raising the stem height, switching to upright handlebars, looking at cleat position, and adjusting the toe clips.

Treatment for sciatica starts with simple manual techniques (joint mobilisations and manipulation, soft tissue release, stretch and strengthening exercises for the lower back and lower limbs). Improvement in symptoms should occur after 2-3 treatment sessions. If the leg pain does not improve or resolve, then more specialist management such as X-ray guided nerve blocks or sacroiliac/facet joint injections should be attempted. Sometimes an MRI of the lower back and pelvis is required to assist the specialist in the treatment.

One management strategy will never work on its own. The treatment plan should always involve looking at the biomechanics of the cyclist, training regime and schedule, as well as all equipment settings.



*Dr Usamah Jannoun MD FFSEM DMS-Med
Consultant in Orthopaedic & Sport Medicine
with special interest in the spine
Clinical Tutor, University of Bath, MSc in Sport
& Exercise Medicine
Chief Medical Officer, GB Ultimate Squad
Same Day Sports Injury Clinic, 11-13 Crosswall,
London ☎ 08000 28 22 78
Harley Street Medical Centre, 27 Harley Street,
London ☎ 0207 46 76 161
www.medtel.co.uk*