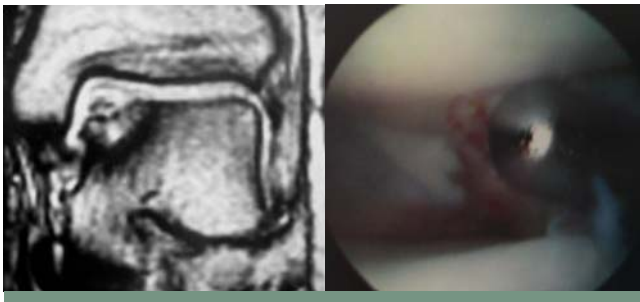


# The Benefits of Arthroscopy or 'Key hole' surgery in the Treatment of Sports Injuries

*Although "keyhole" surgery in its most rudimentary form can be traced back to about 1800, it did not progress much until the invention of the small light bulb 100 years later and was initially used to look at the bladder.*

With the subsequent development of miniaturised technology and more recently, fibre optics, the door has truly been opened on this highly specialised type of surgery. The key principle is minimally invasive access to a joint with the ability to treat abnormalities with high tech miniature instruments.



*MRI image of the ankle joint showing damage to the articular surface and underlying bone*

*Arthroscopy view of a miniature shaver removing some inflamed tissue from the joint which was causing pain following a previous sprain injury*

Arthroscopy has become an invaluable tool in the treatment of sports injuries around the foot and ankle. The joint is visualised using a small (4.5 mm or 2.7 mm diameter) telescope (fibre optic camera). This is inserted through very small incisions called portals (approximately 5mm incisions). The joint can then be visualised on a high definition screen in theatre. Highly specialised miniature instruments are then introduced into the joint through another "key hole". These are powered and operated by the surgeon using a foot pedal operating panel. The technique requires a high level of surgical skill, operating in three dimensions, guided by a two dimensional image on the screen.

Using arthroscopy, several important joints can be accessed and treated in a "key hole" fashion. These include the ankle joint, subtalar joint and other joints in the hindfoot. Even very small joints such as the hallux metatarsophalangeal joint (joint at the base of the big toe) can be treated in this way for specific problems.

Arthroscopic surgery can be performed for a wide variety of problems, from operations on cartilage and inflamed/scarred joint lining to major joint reconstruction and fusion. Even tendons can now be accessed using this technique. Sports injuries are often better treated using arthroscopic ("key hole") techniques where possible, as this can usually be expected to allow earlier recovery and return to sport, as well as fewer and less frequent complications.

Arthroscopy of the ankle is often performed for chronic ankle symptoms following a sprain or injury and is usually performed as day case surgery. In fact injuries to the articular surface (the portion of the bone that is linked to another bones through an intervening joint of cartilage) of the ankle joint are relatively common following ankle sprain and whilst most do not require surgery, those that do, can now be treated with arthroscopic surgery. So called 'footballer's ankle' where there are bony spurs at the front of the ankle joint arising from the bone can also be treated arthroscopically. Ankle arthroscopy is usually performed through two small incisions at the front of the ankle or the back of the ankle depending upon where the problem is. Magnetic Resonance Imaging (MRI) has become a very useful tool in aiding the Foot & Ankle Surgeon to diagnose sports injuries and to plan arthroscopic surgery when this is required. Post operatively, the patient is usually allowed to walk on the operated foot/ ankle immediately and can often expect to return to training and sports after two weeks depending upon the type of surgery performed.

Here at the Sussex Foot & Ankle Centre the Orthopaedic Surgeons have a great deal of experience in treating sports injuries of the foot and ankle in high level athletes and have developed specialist skills in 'cutting edge' arthroscopic surgery.

## sussexfoot&anklecentre

The Sussex Foot & Ankle Centre was founded in 2005 by two orthopaedic surgeons, David Redfern and Stephen Bendall, with the aim of providing a high quality specialist service for the diagnosis and treatment of all foot and ankle problems. Both orthopaedic surgeons are specialists in problems affecting the foot and ankle and have many years of experience. They operate the service with outpatient clinics at the Brighton and Haywards Heath Nuffield Hospitals.

The sussex foot and ankle center strives to provide the best advice and treatment for all foot and ankle problems. This includes sports injuries and trauma, bunions, metatarsalgia, and arthritis. Both surgeons have particular interests in minimally invasive surgery and are at the forefront of developing such techniques in this country.

Both surgeons are also academically very active and have appointments within the national (BOFAS) and international (EFAS) professional foot and ankle surgery societies.

**David J Redfern**  
MBBS, FRCS, FRCS (Tr & Orth)  
Consultant Orthopaedic Surgeon

**Stephen P Bendall**  
MBBS, FRCS, FRCS (Orth)  
Consultant Orthopaedic Surgeon

**Private Secretary** 01273 627060  
**Direct Fax** 01273 627061  
**Email** admin@sussexfoot.com

**Haywards Heath**  
Sussex Nuffield Hospital  
Burrell Road, Haywards Heath  
East Sussex RH16 1UD  
**Tel** 01444 456999

**Brighton**  
Sussex Nuffield Hospital  
Warren Road, Woodingdean  
East Sussex BN2 6DX  
**Tel** 01273 627060