

## ULTRASOUND GUIDED INTERVENTIONS

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Imaging has been used for a long time in management of sports injuries. Accurate diagnosis is vital for early and good management of patients. Although Magnetic Resonance (MR) is the workhorse of the diagnostic armamentarium available in the diagnosis of the various injuries, the role of ultrasound in diagnosis and treatment has been gaining popularity for the last few years. Ultrasound is readily available, cheap and quick when compared to MR and Computed Tomography (CT). Most of the sports physicians have moved away from blind injections and now are relying more and more on image guided intervention.

Ultrasound is the most commonly used imaging modality for guided intervention. Ultrasound is dynamic and easy to perform both on and off the field. High resolution, high frequency ultrasound probes allow accurate placement of drugs. Ultrasound guided injections range from dry needling to injections of steroids, high volume saline stripping of the neo-vessels, prolotherapy and platelet rich plasma injections.

The role of ultrasound in diagnosis and treatment of various tendon and joint related conditions, which commonly affect sportsmen is well known, but there are also specific indications, methodology and complications of various injections.

Steroids are commonly used for treatment of inflammatory conditions affecting various synovial lined tendons and joints. Ultrasound is routinely used for guided steroid injections into the tendon sheaths and joints.

Platelet Rich Plasma (PRP) is being increasingly used for treatment of various tendinopathies. The role of PRP should be assessed in light of the available data and National Institute for health and Care Excellence (NICE) guidelines.

High volume saline stripping of the Achilles and patellar tendinopathies is increasingly being used these days. Ultrasound is used to assess the extent of neo-vascularity on Doppler. High volume stripping is an easy procedure with excellent outcomes. Neovascularity within the tendons can also be treated by injection of high concentration dextrose injections (prolotherapy). This is performed by injection of 25% Dextrose into the neo-vessels within the tendon under ultrasound guidance.