



# First Metatarsophalangeal Joint Arthroscopy

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## INTRODUCTION

Hallux metatarsophalangeal (MTP) joint pain is caused by various pathological conditions, including hallux valgus, hallux rigidus, osteochondral lesions, soft tissue impingement, loose bodies, gout, and osteoarthritis.<sup>1</sup> Although these represent separate, distinct pathological conditions, all may be caused by a combination of mechanical stress and/or biological deterioration and can coexist as concomitant pathology in many cases. Conservative treatments are therefore aimed to improve mechanical and/or biologic components and relieve symptoms. Included in the conservative management of first MTP joint pathologies are footwear modifications, orthotics, physiotherapy, steroid injection, shock wave therapy, and the use of biological adjuncts including platelet-rich plasma (PRP) injection and hyaluronic acid. However, if patients fail a 3- to 6-month trial of conservative therapy, then operative treatment is often indicated, particularly in the setting of worsening pain or function.<sup>2,3</sup>

First MTP joint arthroscopic procedures are being increasingly utilized as a means to treat a variety of pathologies. Typically, MTP joint arthroscopy is performed using a 2-portal approach with dorsomedial and dorsolateral portals. These are positioned on either side of the extensor hallucis longus (EHL) tendon over the MTP joint.<sup>2-5</sup> Although still a relatively new technique, an increasing number of clinical studies suggest a favorable outcome and low complication rates when using first MTP joint arthroscopy to treat soft tissue, osseous, and cartilage pathology.<sup>2,6,7</sup> To optimize outcomes using this procedure, careful clinical assessment and patient selection are required to identify those patients who are suitable candidates for an arthroscopic approach, as some patients may be more appropriately treated using a traditional open approach. In addition, surgeon skill and experience are likely to play a role in outcomes, particularly given the relatively high technical difficulty associated with this procedure.

In this text, the authors review the hallux MTP joint arthroscopic procedure and describe the step-by-step operative technique.