

Extraosseous Subtalar Joint Implant Procedure

Guideline for Chiropractors and Podiatrists

1. Introduction

The Extraosseous Subtalar Joint Implant Procedure ("ESJIP")¹ is a method of surgical treatment for pes planus ("Flatfoot").

Flatfoot is a common musculoskeletal condition characterized by a flattening of the foot arch. Symptomatic forms of Flatfoot can produce pain in the foot, leg and knee, decreased endurance, gait disturbances, prominent medial talar head, everted heels, and Achilles Tendon tightness, among other things. Failure to control the medical issues associated with Flatfoot can lead to long-term complications.

Non-surgical treatment for Flatfoot may include activity modifications, footwear modifications, orthoses and physical therapy. Surgical intervention using various approaches (including the ESJIP) may be considered when non-surgical treatment options have been exhausted.

The ESJIP relies on a subtalar implant (the "Stent") that is inserted in the area between the posterior and anterior facets of the subtalar joint inside the sinus tarsi by lateral incision. The Stent is inserted while the patient is under general or local anaesthesia. The Stent expands the subtalar joint vertically, elevating the head of the talus which realigns the longitudinal arch of the foot. Tissue grows around the Stent and aids in holding it in place. The procedure does not require any resection of bone or cartilage.

There are currently no randomized controlled trials comparing the ESJIP with non-surgical treatments or surgery without a Stent. Without such comparisons, it is not possible to compare ESJIP outcomes with respect to pain, activity levels or footwear limitations. The scarcity of evidence-based studies suggests that the ESJIP should be considered experimental and should not be undertaken before non-surgical treatment options are exhausted. For treatment of children and young adults, the ESJIP should only be used in exceptional circumstances.

2. Guideline

i. Before performing the ESJIP, a member must:

1. be authorized under the *Healing Arts Radiation Protection Act*² to operate an X-ray machine as the ESJIP requires that pre-, intra- and post-operative radiographs of the foot and ankle be taken. These members are either:

(a) those who have been continuously registered as a chiropractor under the *Chiropractic Act* and the *Chiropractic Act, 1991* since before November 1, 1980; or,

(b) graduates of a four-year course of instruction in chiropractic^{3& 4}.

¹ Also known as Extraosseous Talocalcaneal Joint Implant Procedure, Subtalar Joint Arthroereisis, Sinus Tarsi Implant Insertion and Extraosseous Talotarsal Stabilization.

² R.S.O. 1990, c. H.2, s. 5(2), para. 3.

2. have the appropriate education, training, competency and equipment to cut into subcutaneous tissues of the foot. The member must be competent to manage complications during the surgical procedure as well as issues that may arise secondary to the procedure.

3. attempt and/or exhaust non-surgical treatment options.

4. provide the patient or legal guardian with clear written information of the risks, uncertainties and potential outcomes associated with the procedure, including the potential need for subsequent procedures or the subsequent removal of the Stent.

5. obtain informed consent from the patient or legal guardian.

ii. While performing the ESJIP, a member must:

1. use Stents that are authorized by Health Canada.

2. take pre-operative radiographs of the foot and ankle to assess for patient suitability and screen for potential complications.

3. conduct intra-operative fluoroscopic examination of the placement of the implant and confirm using a post-operative radiograph.

³ Members who have completed a three-year course of instruction in chiropody and who have supplemented their studies with an additional year of instruction are not entitled to operate an X-ray machine.

⁴ Members who are registered as Chiropodists but who have a Doctor of Podiatric (D.P.M.) degree are entitled to operate an X-ray machine.