

Surgical treatment of disorders of the forefoot (proximal and distal hallux valgus, metatarsalgia, hammer toe) using percutaneous techniques.

Our team has been using percutaneous techniques for many years, which makes it possible to avoid using fixation devices for the surgical treatment of conditions of the forefoot. Percutaneous surgery of the foot was first practised in the United States in the 1990s by Dr. Stephan Isham and Dr. Mariano De Prado. The practice subsequently spread to Europe and has also been available in Italy since 1999. The technique makes it possible to treat common forefoot deformity without incisions, using only small burrs introduced through small holes, with a consequential reduction in the invasiveness of the surgical procedure. The deformity correction is maintained by a functional bandage (as no fixation devices are used and the patient can put weight on the foot immediately).

- **HALLUX VALGUS:**

- 1. Surgical incision**

A small hole is made in the medial side of the first ray of the foot, in correspondence with the exostosis of the big toe. A small burr is introduced through this hole, used to remove the exostosis and another for the osteotomy of the first metatarsal. All surgical steps are verified by the surgeon using a fluoroscope.

- 2. Exostectomy of the head of the 1st metatarsal bone**

The first burr introduced serves to remove the bone protuberance, which causes the medial redness of the skin.

- 3. Osteotomy of the 1st metatarsal bone**

The introduction, at a later stage, of a thinner burr serves to cut the bone and facilitates the transfer of the metatarsal head.

- 4. Translation of the metatarsal head and valgus correction**

Functional bandage

Once obtained, the correction is maintained using a functional bandage.

The patient can immediately put weight on the foot, using a flat slipper.

- **DISTAL VALGUS OF THE BIG TOE:**

In most cases of osteoarthritic hallux rigidus, the valgus of the big toe does not involve the metatarsophalangeal joint but rather the interphalangeal joint. In this case the correction is once again performed using a percutaneous technique, through a small wedge shaped incision at the base of the first phalanges of the big tow.

- **METATARSALGIA:**

Both pronator as well as supinator syndromes are very often accompanied by pain in the metatarsal heads. These **metatarsalgia** are also treated percutaneously using dorsal incisions on the metatarsals being corrected. The surgical corrections allow the metatarsals to be shortened by a millimetre or two, just enough to alleviate the pain.

- **HAMMER TOE:**

Hammer toe is a deformation characterised by flexion of the proximal interphalangeal joint, which causes the toe to assume the shape of a piano key gavel. In addition to the aesthetic factor, this condition causes dorsal redness of the toe and pain that hinders the use of footwear. In severe cases ulceration is present. The surgical intervention to correct this deformity is carried out using a percutaneous technique or, in severe cases, through a small incision.