



Intermetatarsal angle:  $16^\circ$   
Hallux valgus angle:  $40^\circ$



Intermetatarsal angle:  $10^\circ$   
Hallux valgus angle:  $19^\circ$

Figure 1a and b:  
Corrective effect of the  
Hallufix® splint

## >> New orthosis after hallux valgus surgery <<

Field report by Assistant Professor Dr. Klaus A. Milachowski MD, specialist in orthopaedics in Munich.



Figures 2a and b: Situation following modified chevron osteotomy with Kirschner wire fixation

There are numerous competing operative procedures in the surgical treatment of hallux valgus. Joint-preserving corrective osteotomy of the first metatarsal is employed increasingly today, together with removal of the exostosis and soft tissue correction. Arthrodesis is usually refused by the patient, especially if female. All operative methods have in common the need for postoperative (partial) relief from loading; a forefoot relieving shoe is generally used until there is freedom from pain. Many surgeons prefer fixation by means of splints or orthoses in the initial postoperative period following corrective surgery of hallux valgus in order to preserve and stabilise the soft tissue correction in the scar tissue that has been achieved after performing osseous correction osteotomy.



Figures 3a and b:  
Condition following modified chevron osteotomy with Kirschner wire fixation

### Applications

Until now, only industrially manufactured night splints were available, which are sometimes difficult to fit in a recently operated area and also cause pain in the operated area due to unphysiological pressure. Very many patients therefore stop wearing the night splint. Through the Hallufix® splint it is now possible to safeguard the correction osteotomy with an orthosis even during active early mobilisation and so give the patient the feeling of additional protection in the operation area. The Hallufix® splint corrects the deformity dynamically (fig. 1a and b), so it has also revolutionised the conservative treatment of hallux valgus (*Krauss*).

*Werzinger* has for the first time used the active bandage developed in collaboration with the Fraunhofer Institute for the correction of hallux valgus in the postoperative area and has reported good results in aftertreatment of big toe total arthroplasty.

### Practical experience

In my view, this active bandage has an additional benefit not only in the conservative treatment of hallux valgus but also in the postoperative phase. Even with different operative techniques (e.g. *Austin* operation, chevron osteotomy, scarf osteotomy, base wedge osteotomy, arthroplasty), optimal correction can be safeguarded with the splint. I use the Hallufix® splint routinely in the postoperative treatment after forefoot correction osteotomy (fig. 2 and 3) and after implantation of total joint arthroplasties. Even when there is a lot of oedema, the splint can be readily adjusted individually. No complications have occurred so far.

### Handling

The Hallufix® splint should initially be worn only at night in the case of painful feet. Use can then be increased during the

day by an hour at a time. Handling by the patient is simple and can be controlled very well individually. In particular, the patients find it extremely pleasant to have active protection in the relatively recently operated area and thus can return sooner to normal footwear in daily load-bearing.

### Acceptance of costs

Many statutory health insurance companies now meet the costs of the orthosis following an estimate.

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