

## Post-operative Application of the Hallufix®-Splint

### Summary of the Observations of Dr. Roland Werzinger, Medical Specialist for Orthopaedics and General Practitioner, Munich

The observational study has been conducted since May 2005.

The study compared:

40 patients who wore the Hallufix®-splint  
20 patients who wore the classical night splint.

The evaluation comprised n = 56.

4 cases were excluded per definition of the task of the study (2 cases) and a superficial wound healing disorder (2 cases). In these cases burden increase was artificially delayed due to prescribed rest.

Overall, patients wearing the Hallufix-splint have found it to be very comfortable, users instructions were declared understandable and realisable.

#### **Scientific data:**

Significant improvement in gait behaviour was observed in the 5<sup>th</sup> post-operative week, displayed by a 13 % stronger stance behaviour in the first phalange. The standard deviation was 3.5 %.

The comparison group with the night splint showed insignificant burden values on the first phalange and an increase in stance behaviour over the lateral outer edge of the foot, which is unphysiological.

According to the last podographical measurement stance behaviour (burden on the first phalange) improved significantly (15 % with a s. d. of 3 %).

There is no significant difference in the clinical/radiological Hallux angle of both groups, which means that the advantage of the Hallufix splint clearly lies in early physiological burdening.

However, when compared to the traditional night splint an improvement in the post-operative correction angle achieved (and retained) can be observed. An improvement by 4° can be detected – without the splint as well.

Compared with the control group, post-operative gait and stance behaviour were clearly better with those patients who had worn the Hallufix splint and comparison of both sides showed no difference, whereas those patients wearing a night splint displayed measurable limping.

#### **Conclusion**

Current results confirm the advantage of the Hallufix-splint that had been assumed to this day. Stance behaviour improved significantly and the first phalange could be burdened at an earlier stage.