

Oral presentation

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## Pressure measurements in a new TLSO with a dynamic thoracic brace pad for idiopathic scoliosis

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### Introduction

Van den Hout (2002) [1] performed pressure measurements which are practicable and of value for studies on the working mechanism of brace treatment. Therefore, we performed pressure measurements in our new TLSO with a more or less dynamic thoracic brace pad.

### Materials and methods

Pressure measurements were performed in 8 patients who were treated with our new TLSO. These were done in 15 positions which can be compared with all day activity.

### Results

Eight girls, with a mean age of 12.7 years were asked to participate. The mean duration of brace treatment prior to participating in the present study was 7 months. The mean primary right thoracic curve was 31° and the mean secondary curve measured 23°. The mean corrective force over the lumbar brace pad in standing position was 71 N; over the thoracic brace pad it was 107 N. Van den Hout found in the Boston brace that the mean corrective force through the lumbar brace pad was larger than the mean corrective force over the thoracic brace pad. However, we found higher corrective forces in the thoracic brace pad than in the lumbar brace pad.

### Conclusion

Our new TLSO results in higher corrective force measures than in the lumbar brace pad which suggest that the thoracic brace pad is more or less dynamic.

### References

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