

Oral presentation

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## Selectively increased trunk mobility with FITS therapy: a preparatory stage for correction of idiopathic scoliosis

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### Background

Reduced spine mobility inside the scoliotic curve can be an obstacle for effective correction of idiopathic scoliosis with physiotherapy or bracing.

### Purpose

To assess the effect of a session of specific FITS physiotherapy on trunk mobility.

### Methods

Thirteen girls aged 14.7 +/- 1.4 years, presenting single thoraco-lumbar scoliosis of 28.6 +/- 7.5 degrees of the Cobb angle, were examined. They presented coronal imbalance comprising a protruding concave hip, a deeper concave waist and the medial occipital plumb line shift of 1.5 +/- 0.5 cm to the convexity.

Trunk mobility was assessed before and after one session of FITS physiotherapy, by measuring the range of: (1) frontal trunk shift towards concavity, (2) lateral trunk inclination towards convexity, (3) trunk rotation towards correction, (4) thoracic spine length in forward flexion, (5) lumbar spine length in forward flexion. The control group consisted of the same patients who were examined once again one month later. They underwent identical measurements before and after one session of an unspecific body massage.

### Results

All the parameters apart the thoracic spine flexion revealed significant increase of the range of the tested

movements ( $p < 0.05$ ). After one FITS session, the trunk shift, expressed as the percentage of the trunk height, increased of  $3.9 \pm 2.1\%$ , from  $6.7 \pm 2.3\%$ , to  $10.6 \pm 2.5\%$  ( $p < 0.0001$ ). However, after unspecific massage, the trunk shift increased but not significantly.

### Conclusion

A specific FITS session increased trunk mobility towards the correction of scoliosis more than unspecific massage. This can increase the effectiveness of subsequent corrective patterns of movement.

### References

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