

# Scoliosis Treatment in 147 Patients While Using the RSC Brace



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## INTRODUCTION

There are numerous different philosophies and design possibilities in the conservative treatment of idiopathic scoliosis (IS). Most importantly is that the goals of treatment are clearly defined. These are primarily to prevent the progression of the scoliotic deformity from the beginning to the end of the duration of treatment [1].

## METHOD

The main group consisted of 147 subjects with double curves ranging from 7 degrees to 65 degrees for the major Cobb angles and 1 degree to 60 degrees for the minor Cobb angles. There were 17 male and 130 female subjects, ages from 5 to 15. The 147 subjects were diagnosed with progressive idiopathic scoliosis and were treated by using a RSC brace which involved a medical team collaboration between Rigo, M, in Spain, Ortholutions in Germany, and the exclusive RSC brace treatment center. Each subject had radiographs taken before brace treatment and with the RSC scoliosis brace at the six to eight week follow-up appointment.

## RESULTS

The main group (n=147) had a mean age of 12.97. The main group had 28 subjects with Cobb angles greater than 50 degrees with 17 male and 130 female subjects. The significance level for all of the angles measured was  $p < 0.01$ .

### Main Group

		mean	standard deviation	percent change
Thoracic Cobb Angle	before treatment	33.70	14.59	42.86%
	8 week follow-up	20.77	14.91	
Lumbar Cobb Angle	before treatment	28.18	13.71	41.78%
	8 week follow-up	17.47	14.02	
average % change:				42.32%

		mean	standard deviation	percent change
Major Cobb Angle	before treatment	36.52	13.31	47.71%
	8 week follow-up	20.82	14.59	
Minor Cobb Angle	before treatment	25.28	13.00	36.93%
	8 week follow-up	17.41	14.35	
average % change:				42.32%

Chart 1 The main group before treatment (initial) and at 8 week follow-up (primary correction).

## DISCUSSION

The results are consistent with the experimental hypothesis: those subjects who were treated with the RSC brace reported a significant primary correction of the major, minor, thoracic and lumbar Cobb angles for the main group.

When the subject's X-ray values were measured for the main group (n=147), the means were 36.52 degrees and 20.82 degrees before treatment and primary correction respectively for the major Cobb angles as well as 25.28 degrees and 17.41 degrees before treatment and primary correction respectively for the minor Cobb angles. The in-brace primary corrections for the major and minor Cobb angles were 47.71% and 36.93% respectively for the main group. The in-brace primary corrections for the thoracic and lumbar Cobb angles were 42.86% and 41.78% respectively for the main group.

## CONCLUSION

The RSC brace system had significant primary corrections in the main curves. Therefore, since the initial in-brace X-rays presented with favourable results, it is predicted that the RSC brace prevents curve progression at the end of treatment.

## REFERENCES

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**American Academy of Orthotists & Prosthetists**  
**38<sup>th</sup> Academy Annual Meeting and**  
**Scientific Symposium**  
**March 21-24, 2012**