

A Comparison of a Self Selected and an Ergonomic Posture When Using a Saddle Chair

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Introduction

Seating design has developed to provide alternatives to a standard office chair, such as the saddle chair. However, it is unknown if in order to use the chair effectively a user needs to be advised on an ergonomic posture, or if a self selected posture produces the same effect.

Aim

To investigate if there is a difference in: Head tilt (HT); Neck angle (NA); Cervico-thoracic angle (CTA); Thoracic angle (TA); Lumbar angle (LA); and Pelvic tilt (PT) when comparing a self selected comfortable position (SSCP) and a standardised ergonomic position (SEP) when sitting on a Saddle Chair



Bambach Saddle Chair

Method

This pilot study was an experimental same subject design (n = 13) using healthy subjects conducting a typing task. Standardised instructions were given regarding the adjustment of the saddle chair. Subjects were asked to adopt a SSCP and carry out a split-screen typing task. Further standardised instructions were then given and adjustments made to achieve a SEP, and the task repeated. Analysis was via digital photographs analysed within MatLab. Wilcoxon Signed Rank Tests were conducted for each spinal variable.



Work-station task

Results

	SSCP	SEP
HT	141.57	138.71
NA*	51.40	47.79
CTA*	174.44	173.35
TA	45	44.46
LA	-18.25	-17.86
PT	-2.87	-3.91

* Statistically significant difference ($p \leq 0.05$)

Conclusion

- There is only a statistically significant difference in relation to NA and CTA, the SEP producing a more appropriate posture.
- Instructions on ergonomic position partially enhances spinal posture on a Saddle chair.

Bibliography

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Acknowledgements

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