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.

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.

Results

<table>
<thead>
<tr>
<th></th>
<th>SSCP</th>
<th>SEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>HT</td>
<td>141.57</td>
<td>138.71</td>
</tr>
<tr>
<td>NA*</td>
<td>51.40</td>
<td>47.79</td>
</tr>
<tr>
<td>CTA*</td>
<td>174.44</td>
<td>173.35</td>
</tr>
<tr>
<td>TA</td>
<td>45</td>
<td>44.46</td>
</tr>
<tr>
<td>LA</td>
<td>-18.25</td>
<td>-17.86</td>
</tr>
<tr>
<td>PT</td>
<td>-2.87</td>
<td>-3.91</td>
</tr>
</tbody>
</table>

* Statistically significant difference (p ≤ 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


Acknowledgements

Bambach

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

Work-station task