

Multi-dynamic office chairs -
natural sitting behaviour with proper body support

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Introduction

Office work often requires seated postures for many hours a day. It has been observed that during sitting various postures are adopted. Obviously, one reason for this behaviour is given by the variety of postural demands stemming from the operations to be performed. Furthermore, we know that sustained postures most often demand a continuous muscle activity (static load), which may lead to fatigue, discomfort, and musculoskeletal disorders. Most likely, the postural behaviour observed exists in order to shift the static load from one group of muscles to another, thereby creating temporary relief. Static muscle load may also be reduced by proper body support. The successive generations of office chairs (figure 1) do increase the variety of supported postures that can be adopted. The purpose of this study is to describe the sitting behaviour and evaluation of a multi-dynamic chair, the Savo 90HL with Savo Floating Tilt®. For reference purposes a tip-up chair and a fixed chair were studied. The study (reference 1) was conducted on behalf of Savo as.

Results

Figure 1 shows the sitting behaviour for the Savo (grey area). Other generations of office chairs lead to restricted sitting postures due to their construction. The general perceptions of the Savo were better than for the fixed chair and the tip-up chair, that is, in particular as regards comfort and mobility in relation to body support.

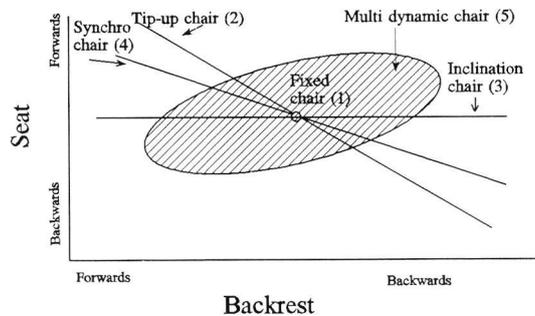


Figure 1. Sitting behaviour for 5 generations of office chairs

Reference

1. Miedema MC, Delleman NJ, Eikhout SM. Savo Floating Tilt® in Action - sitting behaviour and evaluation. Amsterdam: NIA TNO, 1998.