



Musculoskeletal

Age related changes in pelvic mobility

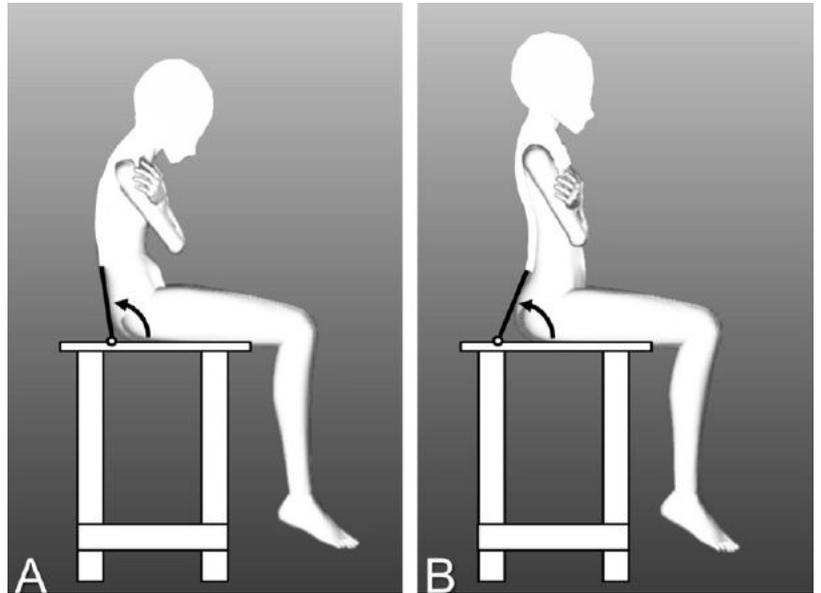
Study investigating the relationship between age and pelvic mobility and resting posture in a sitting position

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It is generally accepted that, as we age, our overall mobility and flexibility decreases. The gradual reduction in the compliance in our muscles and connective tissue, coupled with the age related changes in our joints, results in poorer movement patterns and reduced quality of life.

Previous studies have intricately investigated the relationships in movement of the lumbar spine and pelvic girdle. However little effort has been made to quantify our notions that age affects the overall resting posture and mobility of the pelvis. With this in mind, the authors of the present study set out to verify a relationship between age and the mobility of the pelvic girdle. Overall it was shown that there was a significant correlation between age and mobility as well as maximum pelvic anteversion and retroversion, with anteversion being most affected.

One hundred and thirty two patients were recruited and allocated into groups according to age in ten year increments (first age group: 20-29, last age group: 70-79). Measurements were taken while the subjects sat at a standardized seat, the front edge of the seat was aligned at the point that was 66% along the length of the thigh from the greater trochanter. Pelvic angles were evaluated with a goniometer. Patients were instructed to obtain maximum anteversion and retroversion, mobility was defined as the difference between anteversion and retroversion angles.



A thorough understanding of the aging population will help guide clinicians as we

begin to see an increase in the amount of elderly patients in the future. The pelvis forms the foundation for both our upper and lower extremity and is therefore no surprise that it is integral in effectively translating motion for activities of daily living.

The authors showed that there was a linear relationship between our age and the amount of range measured in a seated position in the pelvic girdle. The available ROM was significantly smaller in participants aged 70-79 than in those aged 20-29. In addition, it was shown that anteversion was more significantly affected than retroversion. While this study is by no means ground breaking, it verifies our basic understanding of age related movement changes, so that we can effectively educate our patients from a clinically informed perspective.

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