

Spine pressure validation

The AnyBody model is validated against an experiment from Wilke Hans-Joachim & al*.

In this experiment the pressure in the L4L5 intervertebral disc (nucleus pulposus) is measured in a healthy subject for different postures and loads of the daily life.

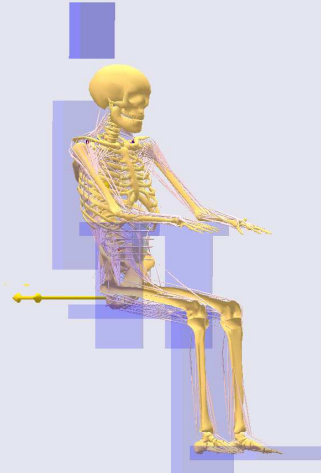
*New In Vivo Measurements of Pressures in the Intervertebral Disc in Daily Life. Wilke, Hans-Joachim PhD *; Neef, Peter MD +; Caimi, Marco MD ++; Hoogland, Thomas MD [S]; Claes, Lutz E. PhD *
Spine. 24(8):755-762, April 15, 1999.

Spine pressure validation

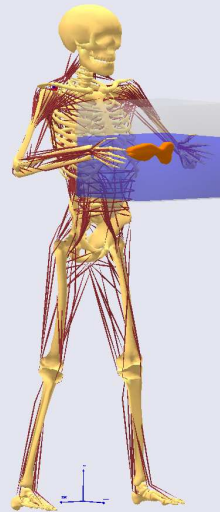
The load cases are reproduced in AnyBody and the compression force in L4L5 is analysed.



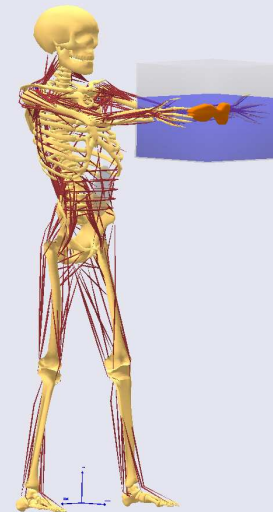
Seating relaxed.



Seating strait.



Lifting a box.



Lifting with
stretched arms.



Standing. etc...

Results

- The results in paper are the disc pressures expressed as a percentage of the standing posture pressure.
- The results in AnyBody are the disc compression forces expressed as a percentage of the standing posture force.
- The percentage from AnyBody and from the paper are compared to each others.

Results

