This paper concerns a former experimental study of the Lehrstuhl für Ergonomie of TU München, where in the first step correlations between pressure and discomfort were found for the seat pan. In the second step these findings were validated for long term discomfort. Now an additional correlation for the back should be found, which is essential for later research. In this context tests conducted before should now be confirmed and validated by another seat comfort model with a higher number of subjects and a long term test, too. Interesting part of this study will be the intercorrelation between seat pan and back.