FORUM
The Stiegelmeyer-Group's company magazine

Well rounded

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The research project 'movement analysis and usage profile for hospital beds – ergonomic symbiosis of man and technology' at the Bielefeld University of Applied Sciences looked at easier handling of hospital beds.

Stiegelmeyer in conversation with science // Bielefeld University of Applied Science

The research project 'movement analysis and usage profile for hospital beds – ergonomic symbiosis of man and technology' at the Bielefeld University of Applied Sciences looked at easier handling of hospital beds.

The background to this study is the change in demographics in Germany. The number of very old, chronically ill or multi-morbid patients is rising continously and brings with it changes in working conditions for care staff. Hospital beds are constantly pushed through rooms and corridors, lifts and examination rooms in the course of their use. The strength that this transportation requires can be exhausting for personnel. A modern, motor-adjustable hospital bed including the patient can weigh 350 kg or more.

So the care staff has to use a lot of strength to move the bed. But how can we optimise the manoeuvrability of a hospital bed and facilitate the work of the care staff? Professor Dr. Ing. Ralf Hörstmeier, head of the KFB centre of competence for movement processes at Bielefeld University of Applied Sciences, worked with 15 project partners, mainly manufacturers and clinics, to initiate a research project. The design engineers at the hospital bed manufacturer Stiegelmeyer also ask themselves the central question of what makes the ideal hospital bed of the future in their everyday work. Therefore, Bielefeld University of Applied Sciences and the Stiegelmeyer Group worked together on this research project.

This cooperation allowed both sides to carry out a practical study of the fundamentals. The connections between various floor surfaces, castors and hospital bed types were analysed in over 1000 tests. This will improve hospital beds in the future and make them easier to move.