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Medical ergonomics: Product development based on collaboration between medicine and engineering

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The presentation deals with a developmental approach to chair design and seating comfort that is underpinned by the latest cutting-edge medical knowledge relevant to a sitting posture. Organization of a participatory development team is presented, as an example, comprising a clinical doctor for developing a comfortable chair for low-back pain (LBP) patients. Advantages and disadvantages are demonstrated of medical methods and engineering methods in evaluation of resultant prototype models, in particular, in the measurement of pelvis inclination. To wrap up, the authors summarize the concept and necessity of medical ergonomics.

Biography

Kageyu Noro completed his PhD from Keio University and served as Chief Professor at Medical Faculty of University of Occupational and Environmental Health, Japan, before becoming an Incumbent Professor Emeritus at Waseda University doubling as CEO of ErgoSeating Co., Ltd. He specializes in product development. From 2001 to 2005, he is engaged in developmental research for development of intuitive control devices of Daimler. Products he designed include seat of JAL, control devices of E-class model of Mercedes-Benz. He earned the outstanding performance award in 2000 in the international design contest of business-class seats of passenger airplanes.

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