So that Load-Bearing Implants Do Not Burden: Load Analyzes for the Selection of Joint Replacements

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Being the eighth most frequent surgery in Germany, the insertion of hip replacement is becoming more and more important in our society. A growing problem is the early wear of such implants, which causes a lot of trouble for the patients. It is important to guarantee a implant longevity in order to increase the mobility of patients and decrease complications. To achieve this aim, the goal was to collect data of test persons and to do several test and experiments as well as calculations to determine the loads that affect hip replacements. The result is not only the possibility to specify the loads of the hip joint for every individual depending on their physical appearance and lifestyle, but also the concept of an implant test, which enables to divide the society into different groups of loads, on the basis of the data. One sample of the test was already done. Further it is important to improve international standards of implants or to establish new ones.

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