



## Structural analysis of orthopedic products

The complex robot-controlled test sequences can be integrated into a simulation-based process in order to perform detailed product analyses with many material and design variants more quickly. This provides deeper and more accurate insights into the stress and deformation behavior of the tested products, which can then be optimized for individual load cases. The

virtual testing process reduces real experiments to the minimum number of test series required, thereby also reducing testing costs. The virtual solution serves as an addition to physical tests and can be a great support in product development, improvement or adaptation.

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### Service Portfolio

- Biomechanical evaluation of mass-produced and personalized "quantity 1" products
- Design and construction of wearable products
- Individualizing design, construction and testing with biomechanical data
- Linking human movement with mechanical test and inspection
- Virtual simulation-based testing and analysis of personalized test sequences
- Sensitivity study on different load case scenarios, product designs and material combinations.