

Application of Computer Tomography in Medical Engineering

Computer tomography (CT) is and will continue to be an important tool in bio-mechanical problem solving and will be used in the generation of 3D data more and more. The produced Voxel data can be readily used for further analyses. Additionally, the data can be used for various succeeding processes, like for example, rapid prototyping or finite element analysis.



In the process of problem solving, it is necessary to provide an interface between biology and mechanics. With the aid of the CT and subsequent processes, it is possible to generate geometric data of biological structures for use in simulation applications. Thus allowing computer simulations in medical environments to be vastly expanded. Certainly this is an essential tool in the understanding and assessment of medical engineering processes. With the help of computer tomography, the pictures above show a process whereby the geometric data for a stress simulation is depicted.