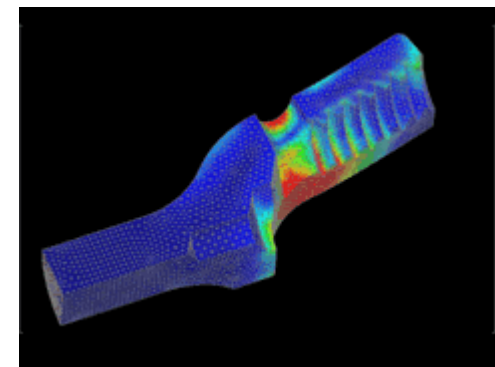
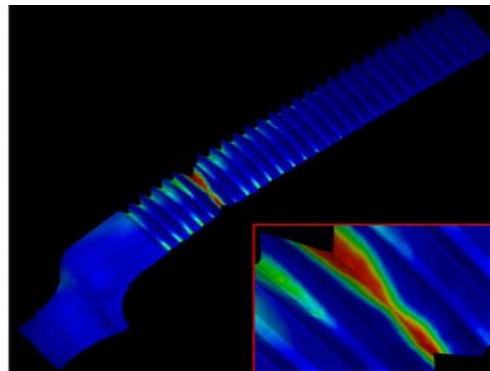
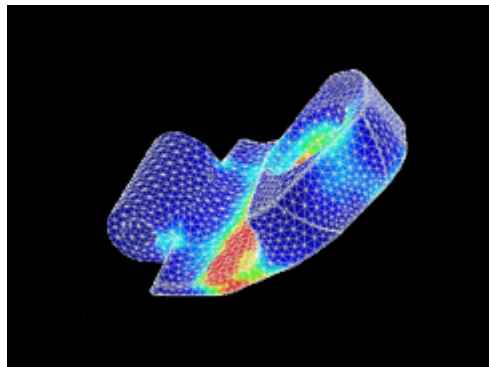


## Medical Case Study (Trautwein Engineering, Germany – Medical Device Implants)

Analysis performed using NEi Nastran by Trautwein Engineering ([www.acesgmbh.de](http://www.acesgmbh.de)) in Stuttgart, Germany was used to predict behavior of medical implants manufactured by Schäfer Micomed GmbH. A titanium hinge that is part of a spinal implant was analyzed using a nonlinear static solution with contact and material nonlinearity (left). Linear static analysis was used to compare bone screws (right). The analysis was used to develop a better design, which resulted in less stress for identical loading. A nonlinear static analysis was used to predict behavior in a spinal implant screw (middle). The screw was designed so that the excess thread could be broken off with a force of approximately 120 N. The design involved modifying the notch to have a maximum effective plastic strain of approximately 10% due to an applied end force.



**NEi Software, Inc.** is aggressively focused on commitment to the customer. Detailed documentation, customized on-site training, and comprehensive technical support ensures that you will see immediate return on your investment.

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