

## RESEARCH ARTICLES

### Biomechanical analysis of anterior stabilization techniques for different partial and total vertebral corpectomy defect models

*Benjamin Ulmar, Alexander Disch, Stefanie Erhart and Werner Schmoelz* **149**

### Biomechanical analysis of screw fixation vs. K-wire fixation of a slipped capital femoral epiphysis model

*Claudia Druschel, Olga Sawicki, Johannes Cip, Werner Schmölz, Julia F. Funk and Richard Placzek* **157**

### Shoulder joint abduction motion test bench: A new shoulder test bench for *in vitro* experiments with active muscle force simulation

*Ursula Onder, Michael Blauth, Franz Kralinger and Werner Schmoelz* **163**

### Primary stability of cementless threaded acetabular cups at first implantation and in the case of revision regarding micromotions as indicators

*Andreas Bürkner, Andreas Fottner, Thomas Lichtinger, Wolfram Teske, Tobias Vogel, Volkmar Jansson and Christoph von Schulze Pellengahr* **169**

### Eye safety for scanning laser projection systems

*Annette Frederiksen, Reinhold Fieß, Wilhelm Stork, Siegwart Bogatscher and Nico Heußner* **175**

### Experimental thresholds of magnetically induced currents via a figure-of-eight coil up to 25 kHz

*Julia Bohnert, Matthias Gräser, Bernhard Gleich and Olaf Dössel* **185**

### Simulation of the temperature elevation in children exposed to plane wave electromagnetic fields (10 MHz-1 GHz) at the ICNIRP reference level

*Florian Niedermayr, Norbert Leitgeb and Werner Siegl* **193**

### Interference of implanted cardiac pacemakers with TASER X26 dart mode application

*Norbert Leitgeb, Florian Niedermayr and Robert Neubauer* **201**