



INVESTMENTS IN EDUCATION DEVELOPMENT

knee flexion. The One-sample t-test showed significantly lower knee flexion angle in sagittal plane than 30 degrees in go landing ($p = 0.0$) and reverse landing only. The reverse and go landing may be harmful for ACL due to single-leg landing in mediolateral direction with significantly lower knee flexion at instant of first peak of GRF.

Determination of dependence of radiographs magnification on the BMI

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X-rays are used for preoperative planning and clinical studies. X-rays have different magnification depending on the distance of the subject from a shield. The aim of the study was to determine whether there is a correlation between images magnification and the BMI. About 60 images of the standard (a ball of known diameter and constant distance from a shield) and the implanted hip joint heads from three hospitals were measured. The result of this study is that the magnification of standard is constant. The dependence of the measured hip joint head magnification on the BMI is statistically significant. Each set of images has a different magnification but the gain of magnification per unit of the BMI is similar.

Effect of the different positioning of Proximal Femur Nail on fixation of proximal femur fracture during cyclical loading

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The objective of this work is to compare the effect of the different positioning of Proximal Femur Nail (PFN) on fixation of proximal femur fracture during cyclical loading. The subject of analysis is an unstable fracture with large posteromedial comminuted area. We considered five possible positions for the PFN fixation system, where one of them is known as the optimal position. We carried out a stress analysis of the bones, stress analysis of the PFN and the preservation of the proper behavior of the PFN. For this work we undertook a computational analysis using Finite Element Method.

The effect of destabilization upright positions on human respiratory function

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