

## International Conference and Expo on

# Biomechanics & Implant Design

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### Podopediatrics & adult biomechanics lecture

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This lecture helps the practitioner understand age specific protocols of treatment of things such as, but not limited to, overuse injuries, flat feet, in-toeing, low tone, and neuromuscular child specific diagnosis. A general review of the most common foot and ankle pathologies associated with podopediatrics involving orthotic treatments. Understanding the long-term implications of foot types in children and their correlation and prevention of many common adult kinetic chain pathologies including but not limited to bunions, hammertoes, neuromas, plantar fasciitis, and 6 other common podiatric adult complaints. This is a very popular lecture because even if the practitioner does not treat kids, it opens their mind to each and every encounter of “everyday adult foot pathologies” they treat and how those conditions may be linked genetically to their patient’s offspring.

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### Hand meter- Improving hand anthropometric measurement using software-based process

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The hand measurement process has been traditionally made manually. However the method developed obtains the anthropometric data while improving the features of accuracy and velocity. In the domain of physical ergonomics which relates physical activity to human anatomical, anthropometric, physiological and biomechanical characteristics, the compilation of anthropometric data is essential. Is in this field where the software will be mainly applied. A different field of application is the design of prosthesis for hand amputates. Accuracy is in this case essential. As well as the lower contact possible with the amputate part, especially when treating burns. These requirements will be fulfilled by using the software as the measurement method. The proposed method only requires a laptop, the software, a camera and a simply training of the measure, the method take 25 different measures of the hand. The circumferences of the fingers can be estimated using super ellipses, for these the real number of measurement that this software offers is 31. Efficiency will be specially noticed when the number of hands required to be measured is to be large. Moreover the software takes the measures six times faster than the traditional. The regression process has results in each sample and can be applied based in the reason of the study and the opinion of the researcher.

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