

# Sports Nutrition and Ortho Congress

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## Drilling simulation

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One drilling is a common part of orthopaedic surgery, especially during open reduction and internal fixation (ORIF) of fractures. Successful ORIF depends upon numerous biologic and mechanical factors include drilling process. Knowing temperature levels during the initial (near cortex penetration) mid (medullary or cancellous bone penetration) and end (far cortical cortex penetration) stages of drilling would help to minimize the risk of thermal necrosis and identify the key drilling stages for intervention. In addition, understanding the ideal revolution rate and best drill advance rate would also assist surgeons in avoiding or reducing bone necrosis. Simulation with 3D graphics modelling enables several parameters to be estimated which leads to enhanced clinical outcomes.

## Biography

Mohamed Mediouni is a PhD student in the faculté des sciences, Université de Sherbrooke Canada. He received his master's degree in robotics from the National School of Engineers of Tunis Tunisia. His research interests focus on computer graphics, physics simulation, artificial life, immersion, virtual reality, augmented reality, medical imaging, haptic, and robotics. Also, he is the founder director of O3DC (Orthopaedic 3D Collection). He is interested in the behavior of the next generation of scientists. He is concerned with the development and the unhealthy state of education of his country.

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