Treating Periprosthetic Fractures of the Femur

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Technology description

Novel apparatus increases healing rate of femoral fractures

Description

Periprosthetic fractures of the distal femur are the most common fracture location around the knee with an incidence ranging from 0.3-2.5%. They account for more than 10,000 fractures per year in the United States alone.
Current technologies have been inadequate in achieving adequate fixation of these fractures resulting in high complication rates. Many patients have residual pain and malfunction of their knee replacement requiring further extensive surgery.
Researchers at McMaster University have developed a method and apparatus to gain rigid fixation to the femoral prosthesis at specific fixed anchoring points to allow bony healing and improve overall alignment of the prosthesis with respect to the limb.
The presented technology has been designed with a methodology to build on existing surgical techniques used with other prosthetic surgeries to increase surgeon adaptability.

Application area

Treatment of periprosthetic fractures of the distal femur

Advantages

Increased levels of knee prosthesis integrity
Improved alignment of bone-prosthesis over current technologies
Can be removed once fracture has healed
Decreased levels of pain and joint stiffness associated with current fixation technologies

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