
RESEARCH PROGRAM

Research Project Details	
Title	The Impact of Residual Deformity on Outcome after Calcaneus Fractures
Investigator(s)	Dr. Andrew Dodd, University of Calgary
Funding Period	September 2017 – December 2019
Budget	\$34,950
Issue/Rationale	The surgical management of calcaneus fractures is challenging and requires a thorough understanding of surgical goals, calcaneus anatomy, and a surgical approach that minimizes soft tissue risks. Few studies have examined the effect of residual calcaneal deformity post-injury on long-term outcomes.
Objective(s)	<p>This study will examine the effects of residual deformity, as detailed by simulated weight-bearing CT, on patient outcomes after calcaneus fractures to better guide operative and clinical management of these complex injuries.</p> <p>Objective: To determine which pattern of calcaneal deformity after fracture fixation will have the largest impact on patient outcome.</p>
Anticipated Results/ Impact	<p>We predict the height, width, and coronal plane alignment (varus/valgus) of the calcaneus to have a larger impact on functional outcomes than does the articular reduction of the posterior facet in calcaneal fractures treated non-operatively and operatively.</p> <p>This study will refine surgical treatment strategies by defining important morphologic parameters and their associated clinical outcome, and may further validate the move towards minimally invasive techniques. Moreover, calcaneus fracture assessment with simulated weight-bearing CT scans is a novel imaging modality that will provide a valuable functional assessment of this injury.</p>
Keywords	Calcaneous, weight-bearing CT, calcaneal deformity, functional outcome