

Research Project Details	
Title	The Impact of Residual Deformity on Outcome after Calcaneus Fractures
Investigator(s)	Dr. Andrew Dodd, University of Calgary
Funding Period	2017-2021
Budget	\$47,140.00 (total across all funding periods)
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.</p> <p>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	Calcaneus, weight-bearing CT, calcaneal deformity, functional outcome