## CASE STUDY: EXPERIENCE FITTING HEAVY DUTY STAINLESS STEEL 3D LASER SINTERED LOCKING FINGER ON A PARTIAL HAND AMPUTEE

<sup>1</sup>Branden Petersen C P L P, <sup>2</sup>Richard Weir Ph D, <sup>3</sup>Levin Sliker Ph D, <sup>3</sup>Jacob Segil Ph D and <sup>3</sup>Stephen Huddle M S

<sup>1</sup>Hanger Clinic <sup>2</sup>University of Colorado <sup>3</sup>Point Designs LLC

## ABSTRACT

Partial hand and finger amputations make up the largest upper limb patient population when you look at upper limb amputation as a whole. In the past several years there has been many advances towards options for patients with partial hand amputations. Many of these advances can assist improving the functionality of partial hand amputees. Many partial hand patients are involved in many different activities of daily living (ADLs) that are heavy duty. In the past many of the partial hand prosthetic options do not hold up to heavy duty forces, wet, and dirty environments. Point Designs LLC recently developed a 3D laser Sintered stainless steel prosthetic locking finger designed for heavy duty ADLs. This case presentation is about a 34 year old Caucasian male that works in the building and construction industry. Sustained a work related injury that resulted in a partial hand amputation of fingers 2-5 and thumb tip. Due to the heavy duty nature of his work a heavy duty prosthesis was required. This presentation discuses the features of this new 3D printed stainless steel locking finger and clinical application.