

# **CASE STUDY: BILATERAL ARM TRANSPLANT PATIENT AND USE OF PROSTHETIC DEVICES TO PROMOTE INDEPENDENCE AFTER TRANSPLANT**

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## **ABSTRACT**

The prevalence of arm transplantation, due to medical advances, has been increasing in recent years. Successful limb transplantation requires balancing of many issues, to include: extensive rehabilitation, medical management, financial support, availability of a caregiver and a tolerance for a decrease in functional abilities for some length of time. Patients agree to a period where they will have much less function than they were with prosthetic limbs that can last from 6 months to 18 months of limited function. After transplantation, it can be 6 months before a gentle functional pinch begins to emerge. This time commitment and extended period of decreased function complicates the patient's everyday life and the decision process for potential patients.

This presentation will examine the adaptations post transplantation and prosthetic options trialed to assist in activities of daily living for one transplant patient. Treatment course and collaboration between prosthetists and occupational therapists will be reviewed as the function of the hands changed as well as development of a prosthetic limb evolved. Other adaptations to the environment will be reviewed to educate participants in other ways to achieve success despite having hand or prosthetic control issues. Prosthetic options offer much faster path to a functional grasp and more intimate interaction with their environment.

The case review will serve to educate and illustrate issues and that arose during the first year of treatment. This review will help medical practitioners understand these options and find ways to promote greater independence at an earlier point in care. Patients can benefit from the return to some assistance from a prosthetic if they are willing to tolerate the time and effort involved. Achieving independence with all required daily tasks is the overarching goal and working to combine technologies can assist in that effort. These adaptations and combination of technologies will serve to improve the participants patient problem solving across a variety of other injuries.