

# Burn Rehabilitation in the Operating Room at the University Medical Center of Southern Nevada: An Interprofessional Collaboration Between Surgeon, Occupational Therapy, Physical Therapy, and Nursing Optimizing Functional Outcomes – A Case Study

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## BACKGROUND

Burn injuries involving joints often result in contractures, limited mobility, and long-term functional impairments. While surgical intervention is crucial for wound closure, integrating rehabilitation planning during surgery is essential to preserve and restore function. This poster presents a case study demonstrating the impact of interprofessional collaboration between the surgeon, occupational therapist (OT), physical therapist (PT) and nursing — initiated in the operating room —on the functional outcomes of a complex burn patient.

## PURPOSE

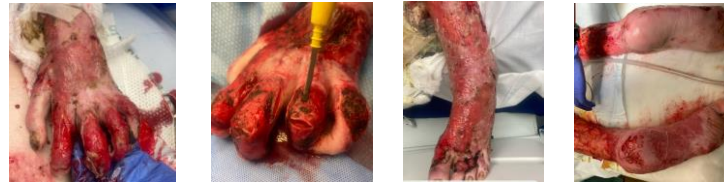
This case study highlights the benefits of integrating OT and PT into the surgical care pathway for burn patients. Starting collaboration in the operating room promotes function-focused care, prevents complications, and speeds up recovery. This adaptable model aims to improve patient outcomes through interprofessional practice.

## METHODS

The method used in this case study involves interprofessional collaboration between the surgeon, occupational therapist (OT), physical therapist (PT) and nursing to optimize functional outcomes for burn patients. This collaboration starts in the operating room and continues throughout the patient's care pathway.

## CASE STUDY

This is the case of SN, a 21-year-old male with 70% TBSA flame burns affecting bilateral upper extremities, trunk, and lower extremities who developed claw hand and bilateral club foot contractures from another hospital admission and underwent multiple staged debridement, grafting, and orthopedic reconstruction. From the first surgery, the OT and PT collaborated with the surgeon to identify high-risk joints, plan for positioning, and provide intraoperative support.



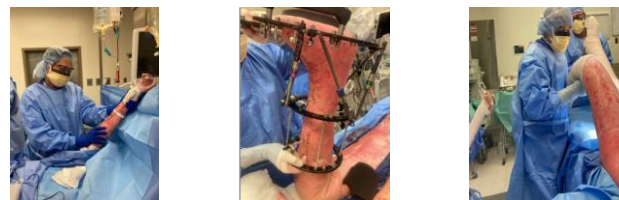
### Intervention Approach:

**Intraoperative OT/PT:** Soft tissue elongation and fabrication/application of custom orthosis in the OR to maintain joint alignment post-grafting.

**OT/PT surgeon collaboration:** Assisted in planning for early mobilization routes and weight-bearing precautions.

**Weekly Interdisciplinary Rounds:** Surgeon, OT, PT, and nursing coordinated care progression, pain management, and early initiation of functional mobility and Activities of Daily Living (ADL) training.

**Family Education:** Provided on post-operative positioning, dressing assistance, and safe mobility techniques.



## RESULTS

As a result, with the complexity of patient care, there have been significant improvements:

- Gained a significant functional range of motion.
- Achieved optimal independence in Activities of Daily Living (ADL), improving from 6/24 to 15/24 on the Activity Measure for Post-Acute Care (AM-PAC).
- Enhanced functional mobility, now walking 90 feet with a front wheel walker.



## CONCLUSIONS

This case study supports the value of integrating OT and PT into the surgical care pathway for burn patients. Collaboration starting in the operating room fosters function-focused care, prevents complications, and accelerates recovery. This model is adaptable to burn centers seeking to elevate patient outcomes through interprofessional practice.

## REFERENCES

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