Symposium  Technology (e.g. robotics, assistive technology, mHealth)

Aging Research & Geriatric Rehabilitation  Brain Injury  Pediatric Rehabilitation  Spinal Cord Injury  Stroke

Technology (e.g. robotics, assistive technology, mHealth)

# Improving Quality of Life Through Use of 3D Printing

Wednesday, November 9, 2022  4:45 PM – 6:00 PM

## Presenter(s)


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Recent trends in 3D printing, also known as additive manufacturing, are creating new opportunities for rehab programs to develop custom assistive devices. Two organizations, On With Life, a neuro-rehab provider, and ImaginAble Solutions, an assistive tech company share how utilizing 3D printing technology allows for the creation and revision of assistive devices. Their experience in developing these devices provides a fundamental understanding of what additive manufacturing is and how it can be implemented in rehab programs. The most successful assistive devices are developed by multi-disciplinary teams involving the person served, therapists, and biomedical engineers. Following the five steps of Design Thinking, 3D printing allows for a low-cost iterative approach to device development. The ability of rehab providers to customize assistive devices to the needs of an individual is the best recipe for increasing and maintaining one's quality of life.

## Learning Objectives:

- Describe How a Collaborative Design Process involving Person Served, Therapists and Engineers Enhances the Design of Assistive Devices
- Describe Advantages of Using Additive Manufacturing Process in Design of New Assistive Technology Devices
- Identify Predictors that Increase Adoption Rates of Assistive Technology Devices
- Develop a Roadmap of How Additive Manufacturing Can be Implemented in a Rehab Program