

Osseointegration for Transhumeral Amputation

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Background:

Osseointegration (OI) offers direct skeletal attachment of prostheses for individuals with transhumeral amputation, potentially overcoming limitations of socket suspension systems. Despite being associated with improved prosthetic function and quality of life, there are several roadblocks that hinder widespread utilization.

Purpose:

This video demonstrates the purpose and technique utilized in osseointegration for transhumeral amputees.

Methods:

The history, benefits of OI relative to socket prosthetics, indications, roadblocks, preoperative considerations, surgical technique, and outcomes are reviewed.

Results:

A primary transhumeral amputation was carried out, and osseointegration was performed in two stages. Outcomes from the literature are reviewed.

Conclusion:

Transhumeral osseointegration represents a promising, transformative option for upper extremity amputees. While not without risks, these are mitigated through careful planning, meticulous soft tissue management, and dedicated multidisciplinary care.