

Dr. Gerald T. Grant

Title

Use of Advanced Digital Technologies in Maxillofacial Prosthetic Fabrication

Abstract:

Advanced Digital Technologies provide unprecedented tools for digital impression, digital design and digital manufacturing of custom medical devices and prosthesis. The nature of this technology has revolutionized the patient experience with digital capture from medical images or photo systems that take seconds to capture the surface images needed, minimal if any “try-in” appointments, decreased fabrication time, and minimal delivery times. Dr Grant, his team, and collaborators have been pioneers in the development and application of these technologies for Wounded Warriors and patients with craniofacial prostheses from trauma and cancer over the past 11 years. This presentation will outline the development of this technology in its use for cranioplasty, extra-oral prostheses, donor masks for face transplant donors, unique application in limb prostheses and current avenues of research in bio-fabrication.

Learning Objectives

1. Participants should be able to identify the freedom of design/manufacturing constraints of Advanced Digital Technologies
2. Be aware of the application and limitations of digital scanning, digital design, and digital manufacturing in Maxillofacial and Prosthetics fabrication
3. To understand the concepts of interdisciplinary team planning in design and manufacturing of Maxillofacial and Prosthetics Fabrication

Biography

GERALD T. GRANT, DMD, MS

Dr. Grant is currently the Acting Chair of the Oral Health and Rehabilitation at the University Louisville School of Dentistry, president of the AAMP and holds academic appointments at both Johns Hopkins Hospital and the Uniform Services University of Health Sciences. His area of research continues to be in the use of Advanced Digital Technologies in custom craniofacial reconstruction.