

Dr. J. Robert Kelly

Title

Ceramics in Implant Dentistry

Abstract:

Ceramics are being used increasingly for both structural and esthetic components of prostheses and implants. Study of failed clinical specimens as well as examination of specimens from clinically-valid fatigue testing is yielding valuable information about what clinicians and manufacturers can do to best optimize both esthetics and function. Such study also leads to some concerns such as manufacturers who do not appear to have used basic ceramic engineering principles when transitioning a metal part to ceramic and extreme performance differences between manufacturers for seemingly identical parts.

Learning Objectives

1. Review which ceramics are being used today in implant and prosthetic dentistry and their clinical indications
2. Examine what we know about maximizing durability and esthetics and how we know it (clinical, simulation and/or modeling data)
3. Be introduced to how the properties of ceramic parts are exceedingly sensitive to how they are fabricated (ceramics processing)

Biography

J. ROBERT KELLY

Dr. J. Robert Kelly teaches graduate prosthodontics and biomaterials at the University of Connecticut Health Center. His academic credentials include a DDS (The Ohio State University), an MS in dental materials science (Marquette University), and a D.Med.Sc. in oral biology and a Certificate in prosthodontics (Harvard/MIT). He is Vice Chairman of the ADA Standards Committee on Dental Products, President of the Academy of Dental Materials and Past-President, American Academy of Fixed Prosthodontics. Dr. Kelly has received awards for biomedical research (Harvard), research and post-graduate education (Association of Military Surgeons of the US) and as a clinician/scholar (American College of Prosthodontists). He has contributed to dental, engineering, and medical literature, holds eight patents, frequently lectures before national and international dental and engineering organizations, still does some of his own porcelain and keeps his fingers wet practicing prosthodontics.