

International College of Prosthodontists London Symposium – Satellite Meeting August 30 – September 2, 2023

Invited Speaker – Rupert Austin

Title

Monitoring Wear with Intra-Oral Scanners Part 1: Current thresholds of detection of IOS

Abstract

Understanding the limitations of intra-oral scanners measurement capabilities is important to guide clinicians as to how confident they can be when making assumptions about the outcome of a measurement using intra-oral scanners. Our research has focused on the fundamental measurement capabilities of intra oral scanners in terms of understanding common pitfalls of measurement. We have developed novel techniques to ascertain the threshold of measurement which suggests that for a natural human tooth being scanned locally the threshold is around 88 microns however full arch scanning further decreases the ability to discriminate an erosive tooth wear lesion to 120 microns and beyond. Further developments are needed to ensure we can accurately measure tooth wear in vivo.

Biography

Dr. Austin is a Clinical Senior Lecturer and Consultant in Prosthodontics at King's College London's Faculty of Dentistry, Oral & Craniofacial Sciences. The Discipline of Prosthodontics focuses on aesthetic restoration and replacement of natural teeth using state-of-the-art technologies for the design and manufacture of dental restorations, including aesthetic veneers, crowns, bridges and implants for oral rehabilitation. Dr Austin is also Service Lead for Digital Dentistry at Guy's and St.Thomas' NHS Foundation Trust Dental Directorate.

Dr. Austin graduated Dentistry with Honours from the University of Manchester (2006), Dental Foundation Training with a Membership at the Royal College of Surgeons of England (2008), a PhD in Enamel Erosion (2011) and Specialty Registrar Training in Prosthodontics with a Masters in Clinical Dentistry with Distinction and Membership in Prosthodontics at the Royal College of Surgeons of Edinburgh (2015). He was appointed an Honorary Consultant in Prosthodontics at Guy's and St. Thomas' NHS Foundation Trust in 2017.

Dr Austin holds Fellowships with the Higher Education Academy and the Academy of Medical Educators and is President of the Odontology Section of the Royal Society of Medicine (2016-18). He is clinical lead for the Digital Dentistry at Guy's Hospital and the Undergraduate Care Planning Clinics at King's College London's Faculty of Dentistry, Oral & Craniofacial Sciences. Rupert's educational leadership includes contributions to curriculum design, student assessment and feedback, and mentoring and pastoral care.