



Academy of Prosthodontics Annual Scientific Session San Diego, California | June 1 – 4, 2022

Program Speaker – Wei-Shao Lin

Title

Virtual Articulators: Where Do We Stand and What's Next?

Abstract

Articulators have been developed to simulate an individual patient's mandibular movement, allowing dentists to evaluate occlusion, develop a treatment plan, and fabricate dental prostheses with appropriate occlusal design. Computer-aided design & computer-aided manufacturing (CAD-CAM) is part of what is commonly described as digital dentistry and has become increasingly popular and important in dental practice. Virtual articulators have been and continue to be developed, using digitized datasets in a virtual environment to reproduce accurate occlusal relationships and functional jaw movements. The goal of virtual articulators is to overcome the inherent shortcomings of mechanical articulators and physical dental casts, which have been associated with a limited ability to simulate the variability of a patient's biological articulation system. Although mechanical articulators will still play an important role in most practices and laboratories, virtual articulators will likely offer a wider range of possibilities and alternatives to improve clinical treatment outcomes. This presentation will focus on the introduction of the virtual articulator and its clinical applications.

Learning Objectives

1. Understand the history and need for virtual articulator
2. Gain digital literacy in contemporary patient treatment using technology and understand technologies that could be used to collect and register digital diagnostic data for the virtual articulation
3. Discuss alternatives and future development for virtual articulator

Biography

Dr. Wei-Shao Lin is an Associate Professor, Program Director in the Advanced Education Program in Prosthodontics, and Interim Chair, at the Department of Prosthodontics, Co-Director of the ITI Scholarship Center, and Center for Implant, Esthetic and Innovative Dentistry, Indiana University School of Dentistry. He received the DDS in 2003 from Chung-Shan Medical University, Taiwan; Certificate in Prosthodontics and Certificate in Surgical Implant Fellowship at the University of Rochester in 2010. Dr. Lin also received PhD in Educational Leadership and Organization Development at the University of

Louisville in 2020. Dr. Lin's research interests include clinical dental implant research, ceramic restorations, and digital dentistry, and has published more than 75 research and clinical articles in peer-reviewed journals. Dr. Lin is a Diplomate of the American Board of Prosthodontics and Fellow of the International Team for Implantology (ITI) and the American College of Prosthodontists. Dr. Lin serves on several editorial boards and is a reviewer for the Journal of Prosthetic Dentistry, Journal of Prosthodontics, International Journal of Oral and Maxillofacial Implants, and Clinical Oral Implants Research. He is an associate editor for the Journal of Prosthodontics. He maintains an intramural dental implant and prosthodontics practice at the Indiana University School of Dentistry.