

**University of the Pacific Arthur A. Dugoni School of Dentistry  
123<sup>rd</sup> Annual Alumni Meeting – 2022 Alumni Weekend  
The Fairmont Hotel, San Francisco**

**J. Martin Palomo, DDS, MSD**

**Subject Area:** Orthodontics

Friday, March 4, 2022  
9:00 am – 12:00 pm – 3 units

**Title:**  
“Using CBCT in Clinical Orthodontics”

**Course Description:**

The digital volumetric tomography era has begun, and we now have access to significant additional diagnostic information. When should an orthodontist use a three-dimensional (3D) image? Is Cone Beam Computed Tomography (CBCT) going to replace the cephalogram? Dr. Palomo was part of a special committee formed by oral maxillofacial radiologists and orthodontists whose goal was to determine when to use CBCT in clinical orthodontists. This presentation will show how CBCT is changing the way we practice, and show how Case Western Reserve University (CWRU) is extracting and using volumetric tomograms for orthodontic reasons. From posterior buccolingual inclination to surface area analysis and volumes, Dr. Palomo will show current protocols and recommendation on when and how to use this 3D imaging modality that is quickly becoming part of the orthodontic practice.

**Objectives:**

- 1) At the conclusion of this presentation the attendants will understand how 3D imaging can provide more diagnostic information than 2D imaging.
- 2) At the conclusion of this presentation the attendants will learn how to analyze the transverse dimension in three dimensions.
- 3) At the conclusion of this presentation the attendants will learn how to superimpose and evaluate outcomes in three dimensions.
- 4) At the conclusion of this presentation the attendants will learn about existing 3D imaging protocols and how to use them clinically.

Friday, March 4, 2022  
2:00 – 5:00 pm – 3 units

**Title:**  
“The 3D Airway and How to Manage OSA in a Busy Orthodontic Office”

**Course Description:**

Traditionally we are trained to see and analyze the airway from only the lateral view on a cephalometric film. But the airway is a three-dimensional (3D) structure, and that third dimension may be hiding something relevant to our diagnosis. This presentation will highlight some of the airway research from Case Western Reserve University, and will show how different commercially available programs can be used to analyze the airway volumetrically, how the airway is different for different craniofacial situations, and what happens to the airway when we extract or expand as part of our treatment plan. With

more than 80 respiratory disorders, the orthodontist can play a big role helping children and adults, specially regarding Obstructive Sleep Apnea (OSA). This presentation will show how the orthodontist can help identify and manage OSA in pediatric and adult patients, from using oral appliances, to surgical movement of the jaws, and newest hypoglossal stimulation methods. When moving from 2D to 3D, distances and angles turn into areas and volumes, and understanding the airway may take orthodontics to the next level, increasing the scope of what can be done clinically.

**Objectives:**

- 1) After this lecture you will be able to incorporate OSA risk assessment in a busy orthodontic office.
- 2) After this lecture you will understand the role an orthodontist may play when dealing with OSA patients.
- 3) After this lecture you will understand how to assess the airway using CBCT.

**Short Bio:**

Dr. J. Martin Palomo is a tenured professor and the Orthodontic Residency director at Case Western Reserve University in Cleveland, Ohio. Dr. Palomo's contributions to craniofacial imaging, informatics, and airway analysis have been recognized through medical and dental research awards, national and international presentations, and numerous peer-reviewed publications. He is the past chair of the AAO Committee on Technology, member of the AAO Council on Scientific Affairs, member of the AAO Foundation Planning Awards Committee, the AAO representative for Image Gently, member of the AAO Committee on Conferences and the Associate Editor for the Digital Orthodontics section of the AJODO. He is also a member of the AAO Task Force that provided a white paper on the orthodontist role on treating patients with Sleep Apnea. He is a board certified orthodontist, an Angle Society member, and an active member of both the Orthodontics and the Oral and Maxillofacial Radiology Associations, as well as the American Academy of Sleep Medicine.