

# Adjunctive Applications of Clear Aligner Orthodontic Therapy in Periodontal Plastic Surgery & Implant Therapy



Homa H. Zadeh

In-person **or** Remote Live **or** On-Demand

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## Faculty



**Homa H. Zadeh,**  
**DDS, PhD**

Dr. Zadeh is a diplomate of the American Board of Periodontology. He received his doctor of dental surgery degree from the University of Southern California (USC) Ostrow School of Dentistry, where he also served as full time faculty and Post-doctoral Periodontology program director. He has also completed advanced clinical education in Periodontology and earned a PhD degree in immunology from the University of Connecticut. Dr. Zadeh is internationally recognized for his clinical and scientific expertise. His clinical and scientific publication track range on topics from esthetic and minimally invasive periodontal and implant surgery, as well as tissue engineering. He served as the president of the Western Society of Periodontology in 2017. Dr. Zadeh directs the VISTA Institute for Therapeutic Innovations with blended educational pedagogy on a variety of clinically-relevant topics. He also maintains a private practice limited to periodontology and implant surgery in Southern California.

## Course Description

Inflammatory periodontitis results in many negative sequelae, including marginal bone loss, gingival recession, interdental tissue loss, pathologic migration of teeth. Periodontal therapy is design to arrest the progression of attachment loss. Regenerative periodontal therapy can go one step further, seeking to restore some of the lost components of the periodontal attachment apparatus.

However, periodontal therapy alone is not adequate to restore optimal esthetics and function. Adjunctive orthodontic therapy is quite useful to reposition teeth, which have drifted as a result of pathologic migration. Moreover, tooth position can potentially predispose to attachment loss. For example, crowding and facially positioned roots are examples of potential predisposing factors to attachment loss and gingival recession. Treatment of recession defects is not as effective when teeth are positioned outside of the alveolar bone. Orthodontic therapy and optimize tooth position within the alveolar bone to improve the chances of root coverage periodontal surgery.

Implants are often needed in situations where adjacent teeth have drifted and in poor position. Orthodontic therapy can improve spacing of teeth to optimize implant positioning.

Multiple clinical trials and systematic reviews have demonstrated better periodontal parameters of clear aligner orthodontic therapy, compared with conventional fixed orthodontic appliances.

Recent improvements of digital tools, have provided advantages of clear aligner therapy to reposition teeth. In particular, root torqueing aims to reposition cervical regions of roots back within the alveolar housing. Interproximal reduction can reduce the size of embrasure spaces to improve the esthetics of “black triangles” without restoration. Drifted teeth can be repositioned to open spaces which were not optimal for implant positioning.

This course will review the adjunctive value of clear aligner therapy to enhance the esthetic and functional outcomes of periodontal plastic surgery, as well as optimize teeth position in preparation for implant therapy.

## Educational Objectives

### How Clear Aligner Therapy works:

- Attachments
- Clear aligners material
- Digital technology: virtual planning software

### Indications for Clear Aligner Therapy:

- Classification of malocclusions
- Open bite
- Deep bite
- Crowding
- Spacing
- Black triangles

### Clear Aligner Treatment considerations

- Rationale
- Case selection
- Limitations of clear aligner therapy

### Ancillary devices Clear Aligner Therapy

- Microscrews as Temporary anchorage devices
- Buttons
- Elastics

### Biological Considerations:

- Physiology of tooth movement

### Orthodontic & periodontal therapy interactions:

- Effects of orthodontic therapy on periodontal parameters
- Periodontal considerations

### Surgically facilitated orthodontic therapy (SFOT)

- Corticotomy
- VISTA for SFOT
- Bone augmentation
- Soft tissue augmentation

### Mucosal phenotype modification therapy (PMT)

- Rationale
- VISTA for phenotype modification therapy
- Biomaterial used for phenotype modification therapy
- Sequencing of soft tissue augmentation & clear aligner therapy

### Implant and clear aligner therapy

- Clear aligner therapy for site development and optimization
- Sequencing of implant & clear aligner therapy

### Risk Assessment:

- Patient and site characteristics
- Management of patient/site risks
- Anatomic considerations and risks

### Evidence Based Therapy:

- Comparison of clear aligner therapy with conventional fixed appliance orthodontics
- Long-term outcomes

### Limitations of Clear Aligner Therapy:

### Complications:

- Prevention and management

### Retention options

## Hands-on Workshop

- Introduction to virtual tooth position planning software
  - Tooth translation: mesial-distal, buccal-lingual
  - Intrusion-extrusion
  - Rotation
  - Crown angulation
  - Root torqueing

## Educational Format

This course offers flexible educational format to accommodate all clinicians' needs and interests.

Participation may take place either:

- In-person or remotely (held over Zoom)
- Live (synchronous) or on-demand (asynchronous)

The hybrid education model provides some of the information in an online format, so that prior to the live presentations, participants have an opportunity to review the content and gain basic background information. This information is accessible on an on-demand basis.

## Schedule for Live event

8:00 to 9:00 AM ..... Registration & Breakfast  
 9:00 to 11:00 AM .....Lecture  
 11:00 to 11:30 AM .....Break  
 11:30 to 1:00 PM .....Lecture  
 1:00 to 2:00 PM ..... Lunch  
 2:00 to 3:15 PM ..... Lecture  
 3:15 to 3:30 PM ..... Break  
 3:30 to 5:00 PM ..... Workshop: virtual planning software

### Tuition

- \$495 Live In-Person
- \$295 Remote Learning: Lecture

### CE units

- 7 hours