



## The Art of Furcation Navigation

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### COURSE DESCRIPTION

This course will discuss the current evidence surrounding ultrasonic instrumentation and biofilm disruption in the periodontal patient with emphasis on the need for a methodical approach. A review of proper ultrasonic technique including adaptation, angulation and adaptation will be covered recognizing the differentiating features of magnetostrictive and piezoelectric technologies. These fundamental principles will then be applied to advanced instrumentation in the periodontal patient with focus on furcation involvement and areas of challenging anatomical access. A review of furcation anatomy, accurate assessment of furcation involvement and recognizing the need for ultrasonic inserts that properly adapt will be emphasized. The importance of ultrasonic insert maintenance and the ramifications of using inserts that are worn down will be quantified in terms of the relationship to clinical outcomes and efficiency.

### COURSE OBJECTIVES

- Apply the Evidence-Based Decision Making (EBDM) process to periodontal instrumentation choices.
- Recognize the role ultrasonic instrumentation has in biofilm reduction in periodontally involved patients.
- Review furcation anatomy and accurate assessment of furcation involvement.
- Examine the need for proper furcation navigation incorporating techniques to access anatomically challenging areas utilizing a variety of ultrasonic inserts/tips.
- Examine the differences and similarities in various ultrasonic technologies.
- Recognize the need for inserts to be maintained and replaced when they are no longer providing effective, efficient, and comfortable patient experiences.



## Course Outline – Speaker Follows this as closely as possible with occasional diversions!

### 1. Biofilm initiated diseases – A Review of Risk Assessments

- A. Review of biofilm and its role in periodontal disease
- B. Inflammatory/host response and its mediating factors
- C. Traditional assessment protocols – Radiographic (CBCT vs traditional) and Probing Considerations – Is BOP reliable?
- D. Detection in the subclinical phase – Salivary Diagnostics – ADA Standpoint
- E. [Oral systemic connections - https://aaosh.org/](https://aaosh.org/)
- F. Wellness Network - <https://www.wellnessdentistrynetwork.com/>

### 2. Progressive Treatment Planning - 4 Part Plan

#### A. Behavior Modification

- 1. Oral hygiene
- 2. Smoking cessation
- 3. Nutrition

#### B. Clinical Procedures

- 1. Debridement
- 2. Antimicrobials
- 3. Laser Therapy

#### C. Lab Testing/Chair Side Testing

- 1. Bacterial load
- 2. Genetics
- 3. CRP etc.

#### D. Systemic Options

- 1. Antimicrobial
- 2. Host modulation therapy
- 3. Nutritional Supplements

### 3. Dental Anatomy Review

- a. Furcation Review –
- b. [Bonebox Lite – \(Download this APP for free Iphone/Android\)](#)
- c. Adaptation Considerations - The “Third Road Map”
- d. Review of the literature - Are we underestimating the anatomical challenges?



**4. Instrumentation Considerations for NSPT in furcation involved teeth – Utilizing a Treatment Decision Protocol**

**A. Options in Instrumentation – Evidence Based Decision Making**

1. Hand vs Ultrasonic – Examination of efficacy of each (AAP 2000)
2. Magneto vs Piezo – Advantages and Disadvantaged
3. Combination Approach

**B. Review of fundamentals with ultrasonics –**

*Iatrogenic considerations – Are we contributing to the problem?*

1. The 3 A's
  - a. Adaptation
  - b. Angulation
  - c. Activation
2. Power, Insert/tip selection – *One Size Does Not Fit All*
3. Insert/tip wear – Quantifying the issue

**C. Successful Debridement -** Creating a biologically-acceptable root surface that favors healing

*Criteria for thorough instrumentation:*

1. Ability to contact root surface - Is it what I'm using?
2. Efficacy of deposit removal
3. Effect on root surface
4. Maintain patient comfort and clinician ergonomics

**D. Clinical Protocols for Biofilm Management with Subgingival Air Polishing**

1. Review of the literature
2. Current Status of Use and application – Considerations and Applications
3. Status in the Curriculums
4. AAP Statements and Considerations



## 5. “*Hero-dontics*” – When in Doubt, Send It Out –

- A. Review of the literature/ Examination of the evidence in success with NSPT with furcation involvement
- B. Bacterial Containment – Is it Spirochetes?
- C. Having a strong Perio Program and collaboration amongst the entire office
- D. The value of Referrals and Co-Therapy Partnerships with the Specialist

## 6. Medical/Dental Considerations of Ultrasonic Technology

### A. Pacemaker Considerations – Where are we at in 2018?

- 1. Review of the Literature
- 2. JADA 2015 – In vivo study
- 3. DFU's

### B. Aerosol Reductions – Review of CDC recommendations HVE

- 1. Purevac HVE
- 2. Isolite
- 3. Nu Bird -Suctioning Mirror
- 4. Additional Options

## 7. Maintenance Considerations - “You are only as good as what is in your hands”

- A. Caring for your equipment
- B. Waterline issues – filter replacement
- C. Insert/tip wear – when in doubt, change it out! Recycling Options
- D. Sterilization – CDC Recommendations of Handpiece



Notes



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