

## ACHIEVING ORTHODONTIC STABILITY

Myofunctional expert Dr. Daniel Hanson explains why orthodontic stability might best be found 'blowing in the wind.'

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## WARNING YOUTHS ABOUT SPIT TOBACCO

The slogan 'Play with grit. Strive to hit. But never spit!' earns Alex Smith \$500 and a trip to the 2014 Little League World Series.

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## IMPLANT TRIBUNE

## NEW REGENERATIVE SOLUTIONS RELEASED

Efficacy, safety promised at every step when building up bone and soft tissue.

► page B4



# Lots of hands-on C.E. options at CDA event in San Francisco

## California Dental Association Presents The Art and Science of Dentistry, Sept. 4–6

**C**DA Presents continues to expand its educational offerings, evidenced by the San Francisco event's packed agenda and large exhibit-hall numbers.

Attendees at the Sept. 4–6 meeting can expect to see a wide variety of presentations and some of the industry's newest equipment on display in the exhibit hall.

The meeting has developed a reputation as a West Coast product-launch venue by many dental companies.

"We expect this show to be one of the best we have put on in San Francisco," said Del Brunner, DDS, CDA Presents board of managers chair. "We strive to adapt and enhance our programs based on what members want and need to help them better their practices."

## Lots of C.E. options

Highlights among the meeting's many continuing education courses include:

*Detection and Diagnosis of Oral Lesions for the General Practitioner: A Hands-on Cadaver Course* (led by Homayon Asadi,

DDS, and William M. Carpenter, DDS, MS). This workshop will provide proper head and neck examination and hands-on experience in oral mucosal and soft-tissue biopsy techniques. Use of appropriate instruments, biopsy site selection, tissue procurement, specimen fixation and relationship with the pathology laboratory also will be covered.

*Local Anesthesia Cadaver Dissection* (led by Alan W. Budenz, DDS, and Mel Hawkins, DDS). This workshop will cover the anatomy, landmarks, skull locations, insertion points and needle pathways for the inferior alveolar, mental and advanced (higher) mandibular nerve blocks, such as the Gow-Gates and Akino-si techniques. Also covered is a complete maxillary division nerve block as well as the use of other blocks and infiltrations. Analysis of the neurovasculature, muscles of mastication and accessory innervations in the dissected fields will allow direct visualization and better un-

► See CDA, page A5



## American Association of Oral and Maxillofacial Surgeons, Sept. 8–13, Honolulu

Pristine beaches and colorful orchid leis are among the sights awaiting attendees of the AAOMS annual meeting. The exhibit hall and most educational sessions take place at the Hawaii Convention Center, in the heart of Honolulu at the gateway to Waikiki. Photo/ Hawaii Tourism Authority (HTA)/Tor Johnson

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# Summer thoughts to warm you this winter

By Dr. David L. Hoexter, DMD, FICD, FACD, Editor-in-Chief

This past winter was brutally cold and at times simply depressing. Helping me to keep warm during this forthcoming winter will be photos of the previous year's warmer moments. The Hamptons, that playground of the jet set, offers many such moments: the sun reflecting on the water, the vibrant colors and the exuberance in the air all make for lasting memories. The dinner parties, polo matches, lively cocktail hours and homes of the rich and famous present memories that can provide winter warmth. And among these images are sprinklings of 'providers of the smile' — dentists. Dr. Chester Redhead and wife Gladys celebrated their 61st wedding anniversary by taking over the American Hotel in Sag Harbor. Guests included me and my wife, June, and several New York powerhouse politicians, including Basil Paterson and former NYC Mayor David Dinkens. Dr. Redhead is noted for his involvement in the Greater New York Dental Meeting and for bringing in a plethora of members to the American College of Dentists, having served as a past president of the New York County section. But perhaps he is best known for marrying Dr. Scott's daughter. Can't wait for the next season to begin!

**Top photo, from left:** Gladys Redhead, Dr. David L. Hoexter, June Hoexter and Dr. Chester Redhead.  
**Bottom photo, from left:** Dr. David L. Hoexter and Dr. Larry Rosenthal compare and create smiles in Southampton during the peak of 'Bacchus time.'



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### PUBLISHER & CHAIRMAN

Torsten Oemus [t.oemus@dental-tribune.com](mailto:t.oemus@dental-tribune.com)

### PRESIDENT & CHIEF EXECUTIVE OFFICER

Eric Seid [e.seid@dental-tribune.com](mailto:e.seid@dental-tribune.com)

### GROUP EDITOR

Kristine Colker [k.colker@dental-tribune.com](mailto:k.colker@dental-tribune.com)

### EDITOR IN CHIEF DENTAL TRIBUNE

Dr. David L. Hoexter [feedback@dental-tribune.com](mailto:feedback@dental-tribune.com)

### MANAGING EDITOR U.S. AND CANADA EDITIONS

Robert Selleck [r.selleck@dental-tribune.com](mailto:r.selleck@dental-tribune.com)

### MANAGING EDITOR

Fred Michmershuizen  
[f.michmershuizen@dental-tribune.com](mailto:f.michmershuizen@dental-tribune.com)

### MANAGING EDITOR

Sierra Rendon [s.rendon@dental-tribune.com](mailto:s.rendon@dental-tribune.com)

### PRODUCT/ACCOUNT MANAGER

Humberto Estrada [h.estrada@dental-tribune.com](mailto:h.estrada@dental-tribune.com)

### PRODUCT/ACCOUNT MANAGER

Will Kenyon [w.kenyon@dental-tribune.com](mailto:w.kenyon@dental-tribune.com)

### MARKETING DIRECTOR

Anna Kataoka [a.kataoka@dental-tribune.com](mailto:a.kataoka@dental-tribune.com)

### EDUCATION DIRECTOR

Christiane Ferret [c.ferret@dtstudyclub.com](mailto:c.ferret@dtstudyclub.com)

### ACCOUNTING COORDINATOR

Nirmala Singh [n.singh@dental-tribune.com](mailto:n.singh@dental-tribune.com)

Tribune America LLC

116 West 23rd St., Ste. #500

New York, N.Y. 10011

(212) 244-7181

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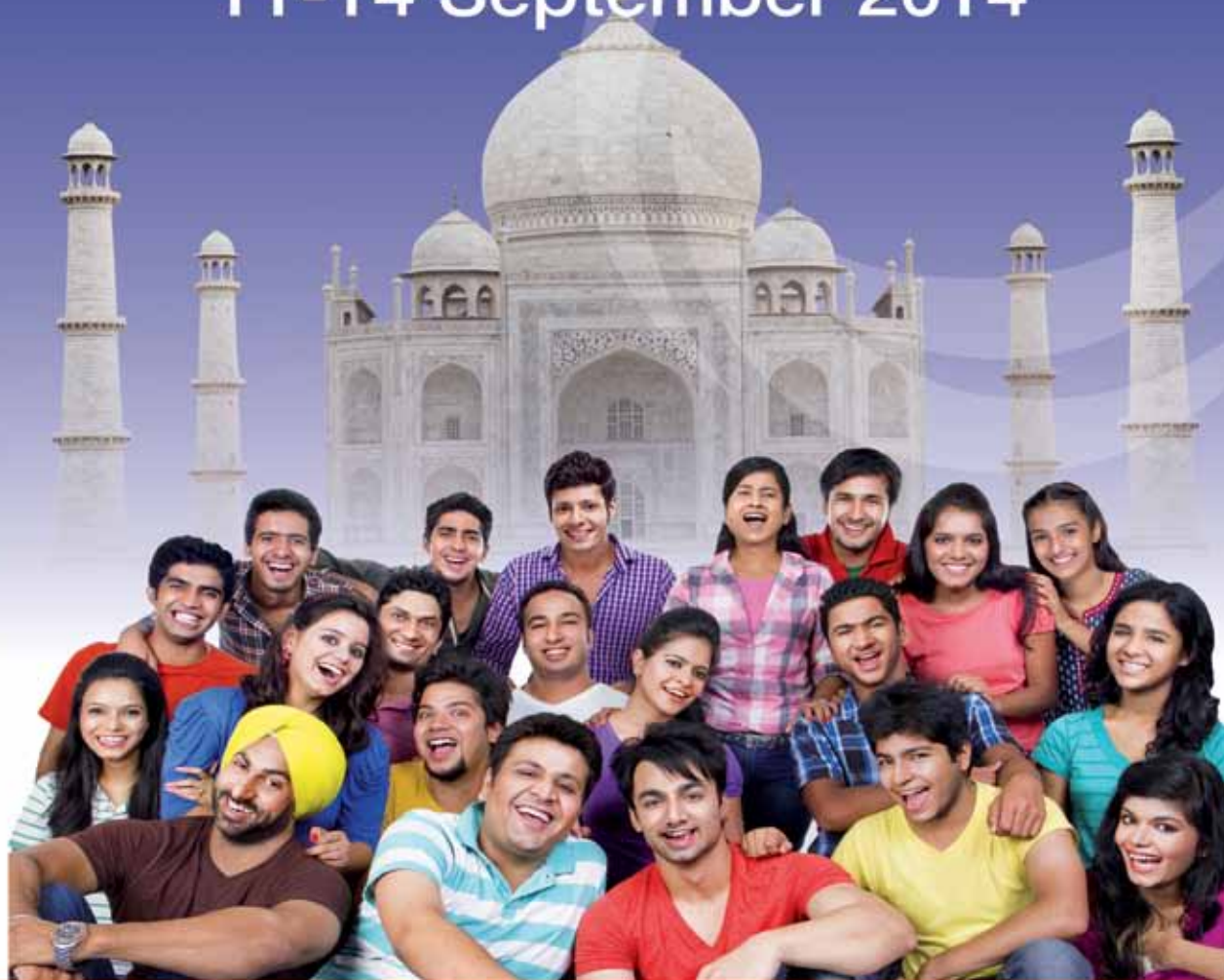
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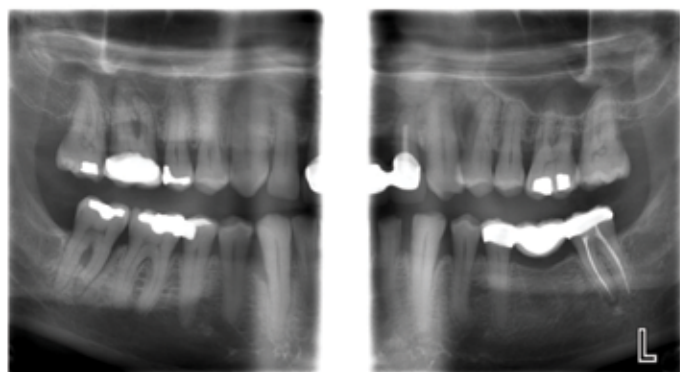


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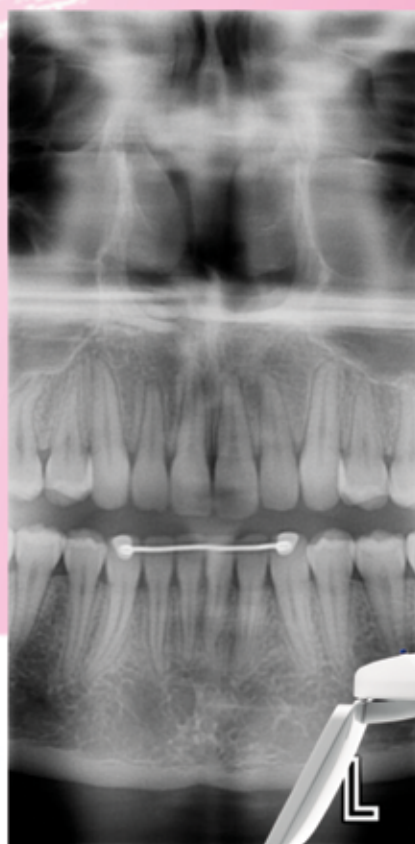
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**PLANMECA**

# Past keynote speakers create 'hall-of-fame' panel at AADOM 10th annual meeting

Members and guests of the American Association of Dental Office Managers are invited to tap into the latest education on practice management while meeting new friends and catching up with old at the Hilton San Diego Bayfront hotel, Sept. 4-6.

This year marks the organization's 10th annual conference, and in recognition of that, the agenda is packed with timely, practical courses, lectures and sessions.

A highlight of the event is expected to be the return of the past 10 years' most popular keynote speakers to create a "Hall of Fame" expert panel.



The Hilton San Diego Bayfront hotel and conference center (far right) hosts the American Association of Dental Office Managers 10th annual conference from Sept. 4-6. Photo/Provided by Hilton Hotels & Resort, © 2014

Also back by popular demand this year is Software Palooza — a half day of intensive courses dedicated entirely to software training. The training attracts those who want to gain the most out of Eagle-

soft, Dentrix, SoftDent or PracticeWorks systems. Taught by experienced trainers and super users, the courses are designed to enhance and enrich your practice management software experience and pro-

vide tips and new reports you can use as soon as you get back to your practice.

Keynote speaker Laurie Guest is scheduled to present "Best Kept Secrets of Successful Practices." Additionally, a "bonus" session has been scheduled for Wednesday evening, featuring Paul Edwards, president of CEDR Solutions, with "Top of Their Class: How Managers Can Build Extraordinary Teams." Other speakers will address topics such as team building, stress relief, electronic health records, (EHR) and overcoming practice barriers.

According to the meeting organizers, the event's exhibitors understand how important the office manager is to the practice and are excited to educate attendees on the newest products and services in dentistry.

As always, many exhibitors also will be offering show specials no practice will want to miss.

The 2014 Office Manager of the Year will be announced in San Diego, and the organization's newest fellows will be inducted into the fellowship program.

And, of course, the conference will be rounded out with plenty of time and opportunity for networking with fellow professionals from around the country and a little bit of time for some off-site social events. This conference is approved for up to eight C.E. credits toward the AADOM Fellowship Program.

## Conference venue features numerous attractions

The grounds and interior of the Hilton San Diego Bayfront, which rises 30 stories above San Diego Bay, are filled with local artwork that draws upon light, wind and other inspirations from the San Diego Bay waterfront to create spaces that many have described as being "dramatic and uplifting." Other highlights of the hotel include:

- San Diego's first and only heated salt-water hotel pool, located directly alongside San Diego Bay.
- A 4.3-acre park and waterfront promenade with an abundant variety of trees and plants.
- Spa Aquazul and fitness center, a therapeutic ocean oasis offering an elaborate range of relaxation and renewal.
- Direct access to biking, walking, rollerblading and boating along the San Diego Embarcadero and on San Diego Bay.
- Lush landscaping surrounding the Pool Deck and Promenade Plaza, comprising more than 60 varieties of plants, shrubs and trees, all labeled with descriptive signage for guests' educational enrichment.

(Source: American Association of Dental Office Managers)

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← CDA, page A1

derstanding of local anesthesia.

*Practice Assessment: How Healthy Is Your Business?* (led by Michael W. Perry, DDS, and Robyn Thomason, CDA practice support director). This lecture will help dentists understand the key practice assessments that keep a practice healthy and strong. Attendees will learn how to “diagnose” business problems, develop a “treatment plan” of solutions and implement that plan. Attendees also will learn how to identify when it’s time to bring on a consultant to help implement changes and train the dental team.

#### Restorative dentistry — international symposia

*Functional and Esthetic Commitment Dentition* (led by Miguel Angel Diez Gurtubay, MsC). This lecture will teach attendees how to design a treatment plan of a functionally and esthetically compromised anterior segment. It will provide an overview of surgical alternatives based on tissues (soft-tissue anatomy, bone volume and density). Attendees will learn the steps and techniques used from diagnosis up to cementation of a restoration in natural teeth and on implants in patients with esthetic and functional compromise.

*Alternatives to Surgical-Prosthetic Implants in the Absence of a Central Incisor* (led by Miguel Angel Diez Gurtubay, MsC). This lecture will review the surgical techniques used to place central in-

cisor implants, from clinically ideal to compromised alveolar situations. The creation of an emergence profile via prosthetic design and fabrication of different personalized attachments, including prosthetic solutions when there is a loss of bone and gingival tissue contours, will also be covered.

*Treatment of the Edentulous Maxillary* (led by Miguel Angel Diez Gurtubay, MsC). This lecture will provide an overview of the surgical-prosthetic techniques in the edentulous superior arch. Treatment design based on identification of maxillary atrophy, narrow crests or pneumatized sinuses will be covered. This course will provide a step-by-step review of definitive metal/acrylic prosthesis, CAD/CAM and translucent zirconium development. Dentists will learn the different techniques used to solve the most common problems encountered in patients with maxillary atrophy.

#### Exhibit hall floor

As the site of numerous new product launches every year and featuring more than 375 companies, the exhibit hall floor at CDA Presents consistently ranks among the busiest in the country.

Attendees can explore 80,000 square feet of dental innovation. Staggered class schedules also provide attendees more time to conduct business on the exhibit hall floor without conflict with educational offerings. The CDA Presents Board of Managers did this to create a situation where the exhibitor floor midday

foot traffic was less overwhelming for attendees. The board accomplished this by moving the start time for some of the classes to 8 a.m. This gives more people an opportunity to see all the great dental products available.

#### Headlining speakers

Some of the biggest names in dentistry are consistently a major draw at the convention, and this year is no exception. The various speakers’ insights and inspiration will help dentists and staff excel in every aspect of dentistry.

According to the meeting organizers, some of dentistry’s most captivating speakers will be headlining the conference, presenting innovative lectures and educational workshops. Dentists and all members of the dental team will have a wide variety of opportunities to learn about the latest advancements relating to all aspects of the dental profession.

#### The Moscone Center and neighborhoods beyond

In addition to providing informative lectures and hands-on opportunities to explore the latest in new dental products, CDA Presents also offers up one of the country’s most popular destination cities as its backdrop. San Francisco provides a near-unlimited variety of venues for mingling with colleagues in the evenings.

The CDA Party will take place at the California Academy of Sciences on Friday, Sept. 5, from 7 to 10 p.m. There are several

restaurants near the Moscone Center as well, including North Beach Restaurant (1512 Stockton St.), Jillian’s (101 4th St.), La Briciola Restaurant (489 Third St.), Rocco’s Cafe (1131 Folsom St.), Cesario’s Fine Food (601 Sutter St.), Waiters On Wheels (5425 Mission St.) and Firenze By Night (1429 Stockton St.).

Also nearby are an array of museums that are open in the evenings. For more information about the CDA Party, visit [www.cdapresents.com](http://www.cdapresents.com). For more information about San Francisco, visit the San Francisco Visitors Bureau website.

#### Engage and inspire the entire staff

The CDA Presents Board of Managers reports that it strives to ensure all attendees, including staff, have the opportunity to learn from some of the most successful names in dentistry.

Office staff members will be able to glean some key takeaways on topics such as effective communication skills, how to deal with difficult people, hands-on social media tips, the top five skills every administrative team member must master, trends in dental insurance and diagnosing and treatment challenges of periodontal diseases.

Dentists can have their staffs attend profession-specific lectures and workshops. Staff members also enjoy having the time to get to know their colleagues outside of the daily office setting.

Learn more at [www.cdapresents.com](http://www.cdapresents.com).

(Source: California Dental Association)

AD

## 5<sup>th</sup> ADEA International Women’s Leadership Conference & ADEA International Workshop

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# ADEA combines two events in Barcelona

*International Workshop, Sept. 14; International Women’s Leadership Conference, Sept. 14–16*

The American Dental Education Association (ADEA) is hosting two meetings for today’s globally minded dental education and research communities: the 5th ADEA International Women’s Leadership Conference (IWLC) and the ADEA International Workshop.

Both events — being held at the Renaissance Barcelona Fira Hotel from Sept. 14–16, in Barcelona, Spain — will focus on professional development, leadership strategies, cross-cultural connections and curricular reform to help chart dentistry’s future course.

Hundreds of dental educators, leaders and practitioners from around the world are expected to come together with ADEA experts, other thought leaders and emerging pioneers in dental education and research for the two conferences, which are separate in theme and focus.

In its fifth year, with the theme of “Global Health Through Women’s Leadership,”

the ADEA IWLC is a three-day conference providing insight and perspectives on how women are forging new pathways to help advance future generations and produce better health outcomes globally. Participants — including both men and women — will explore research-based and practical strategies related to gender and the roles of women leaders in dentistry worldwide through plenaries, working groups and skills-building sessions.

Building on a long-standing collaboration with the Association for Dental Education in Europe, the ADEA International Workshop is a one-day event discussing change and innovation in dental education. With the theme “A Global Perspective on Leading Change and Innovation in Dental Education,” this meeting also presents an opportunity to further expand on ongoing efforts being championed through the ADEA Commission on Change and Innovation in Dental Educa-



Barcelona, Spain, pictured, is hosting back-to-back meetings presented by the American Dental Education Association, Sept. 14–16. The one-day ADEA International Workshop is immediately followed by the three-day ADEA International Women’s Leadership Conference (men and women are invited). Photo/Provided by ADEA

tion, which was created in 2005 to facilitate transformation in the education of dental professionals so they graduate with the competencies required to meet future oral health needs of the public.

For more information and to register for the 5th ADEA International Women’s

Leadership Conference and ADEA International Workshop, visit [www.adea.org/Barcelona](http://www.adea.org/Barcelona).

Follow ADEA on Twitter at @ADEAweb using #ADEASpain14 and #IWLC14.

(Source: ADEA)

## Find 2014 Winter Clinic in new Toronto location

The 77th Annual Winter Clinic, the largest one-day dental convention in North America, is on the move, with its 2014 meeting set for Friday, Nov. 14, at the Toronto Sheraton Centre.

This year’s clinical program covers a

broad spectrum of topics, including an examination of the way digital technology is transforming workflow; demonstrations of cutting-edge tools and equipment; specialized techniques for prosthetic tooth repositioning; the use of lasers in peri-

odontal therapy; a discussion of X-rays as a diagnostic tool; advice on the latest legal requirements for health and safety in the dental office; and how to meet the demands of your modern dental practice through healthy habits and humor.

You can bring the whole team to share the knowledge. The single-day event features 24 separate programs in contemporary dentistry, offering something for all.

(Source: Toronto Academy of Dentistry)

## Greater New York Dental Meeting keeps on growing

By Jayme McNiff Spicciatone  
Program Manager, GNYDM

New events scheduled for the 2014 Greater New York Dental Meeting include:

- The World Implant Expo, four days of innovations in implantology.
- An expanded ColLABoration Dental

Laboratory Meeting, bringing together dentists and lab technicians.

- An expanded exhibit floor with more than 1,700 booths and 700 companies.

The new World Implant Expo will be held simultaneously with the main Greater New York Dental Meeting, from Nov. 28 through Dec. 3. ColLABoration, the dental laboratory meeting, is expected to

surpass its inaugural 2013 numbers: 1,183 technicians and technician students and 50 exhibitor booths. The 2014 GNYDM exhibit hall dates are Nov. 30 through Dec. 3.

Again for 2014, the GNYDM, which is sponsored by the New York County Dental Society and Second District Dental Societies, will remain free of any registration fee. Other distinctions that make the

GNYDM stand out include:

- Only event with four-day exhibit hall.
- More than 300 educational programs.
- One C.E. unit can be earned by exploring the exhibit floor.
- Eight “Live Patient Demonstrations.”
- Multilingual programs (in Spanish, Russian, Portuguese, French and Italian).

Learn more at [www.gnydm.com](http://www.gnydm.com).



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# Hard to achieve orthodontic stability? Answer may be blowing in the wind

By Dr. Daniel Hanson, BDS  
Sheffield, UK

The majority of children today exhibit some degree of malocclusion,<sup>1,2</sup> and it has been well documented that this is related to soft-tissue dysfunction.<sup>3,4</sup> In fact, it is now so well accepted that the muscles of the tongue, lips and cheeks play a major role in tooth position and jaw development<sup>5,6</sup> there are contemporary pre-orthodontic clinics around the world using myofunctional philosophy to treat children between the ages of 5 and 15 (Myobrace® Pre-Orthodontic Center).

However, despite these evolutionary myofunctional treatment systems achieving outstanding results, a small percentage of cases that prove difficult to treat remains. This raises questions regarding what is causing these stubborn cases as well as how best to treat them when all obvious poor myofunctional habits, such as digit sucking, tongue postural issues and dysfunctional swallowing patterns, have all been addressed in the myofunctional sense. It appears that answers may be uncovered by examining the child's airways and breathing patterns.

Relevant literature explains how mouth breathing is a significant factor in the aetiology of malocclusion.<sup>7,8,9,10,11,12</sup> In short, when mouth breathing occurs, the tongue moves down in the mouth to allow the passage of air above it. Furthermore, an open-mouthed posture can affect the direction of growth as the muscles pulling on the jaws are affected. However, the real details of why children habitually mouth breathe are not so well documented.

## Breathing dysfunction factors

**Factor 1: Tongue and head posture.** Breathing through the mouth causes the tongue to lower and also alters the head posture. This low tongue posture then leads to reduced maxillary growth<sup>13,14</sup> and increases in vertical growth (Figs. 1a, b).

**Factor 2: The Bohr effect and cellular hypoxia.** It is important to be mindful that breathing dysfunction includes more than just mouth breathing. It also includes habitual hyperventilation, which means the patient will constantly be breathing an excess of air. This will then cause the bond between haemoglobin and oxygen to be strengthened (Bohr effect), and while blood oxygen saturation can be normal, oxygenation at a cellular level may be reduced due to poor oxygen release from haemoglobin. As a result, cells become stressed, and this cellular hypoxia can lead to dysfunction on a cellular level (Fig. 2).

My observations as a breathing educator and dentist practicing myofunctional orthodontics is that in addition to malocclusions, patients with poor breathing patterns also tend to have sinus congestion, asthma, hay-fever, enlarged adenoids or tonsils as well as ADD, Asperger's and other syndromes on the autism spectrum.

**Factor 3: Becoming locked into a cycle of habitual hyperventilation.** Patients who habitually hyperventilate become accustomed to breathing greater than the physi-



Figs. 1a, b: Mouth breathing and low tongue posture cause crowding and a narrow upper arch. Images/Provided by Myofunctional Research

ological norm (> 4-5L/min at rest). It is hypothesised that habitual hyperventilation causes the trigger point at which the brain detects a level of CO<sub>2</sub> sufficient to prompt the breathing reflex to become too low, and patients become sensitive to healthy CO<sub>2</sub> levels, causing them to breathe an excess of air. Because such patients can get locked into this cycle of habitual hyperventilation, they may need extra help breaking the mouth-breathing habit.

## What can help these patients?

An increasing number of dental professionals are focusing on innovative techniques to help patients break their cycle of habitual hyperventilation. These techniques involve a combination of breathing and airway awareness exercises intended to assist the patient to become accustomed to breathing smaller, healthier volumes of air. As a result, these patients learn to breathe less (retain more CO<sub>2</sub>), and more O<sub>2</sub> is released to their cells and tissues. Additionally, airways remain clearer, patients often become healthier, and tongue posture improves when mouths remain closed.

These techniques are used by Myobrace Pre-Orthodontic Centers to treat the difficult 5 percent of cases where the patient does not adapt to a better breathing habit using Myobrace appliances along with myofunctional and breathing activities alone.

To predict which patients may require help correcting their airway dysfunction, they can be divided into three groups during treatment planning. It is important to note that the groups remain flexible.

**Group 1 — Unlikely to require assistance (5 percent of patients):** no asthma; no Hx of ENT; no medications; no regular illness.

**Group 2 — May possibly require assistance (90 percent of patients):** previous asthma; previous ENT; medications; regular illness.

**Group 3 — Likely to require assistance (5 percent of patients):** current asthma; current ENT; multiple/several medications; constant illness.

Patients classified into Groups 1 and 2 are likely to change their airway dysfunction after treatment with the Myobrace System™, which encourages correct breathing. However, patients classified into Group 3, and in some instances those in Groups 1 and 2, are likely to require additional assistance.

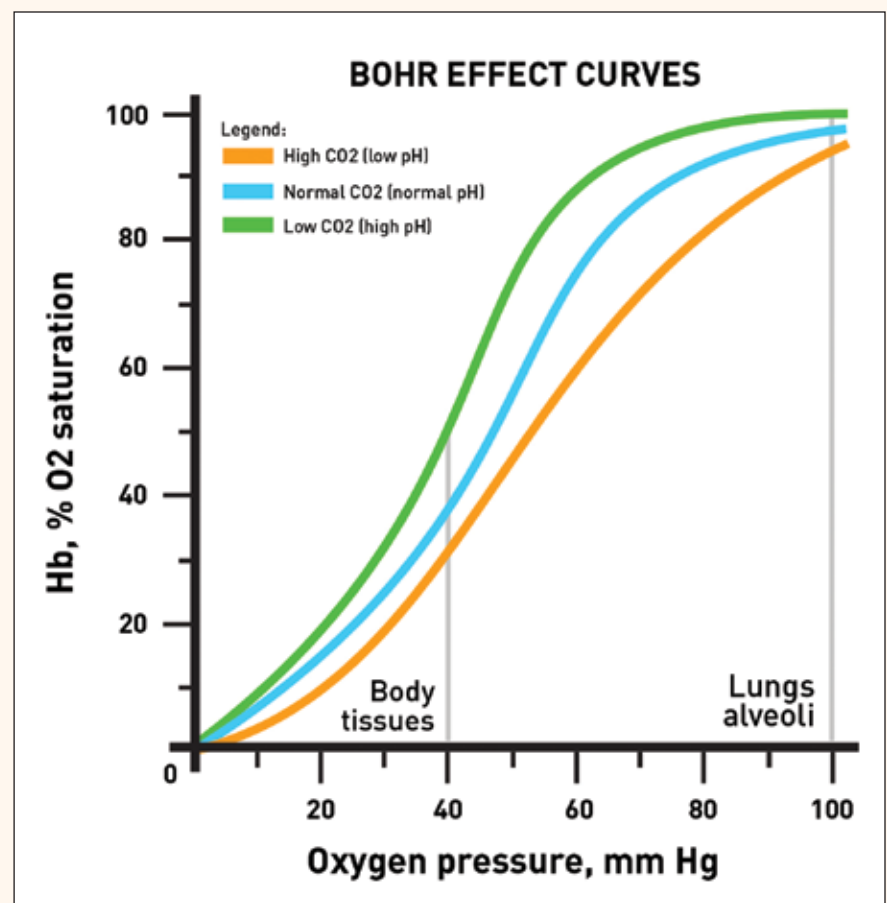


Fig. 2: The central proposition of the Bohr Effect states oxygen affinity to hemoglobin depends on absolute CO<sub>2</sub> concentrations, and reduced CO<sub>2</sub> values decrease oxygen delivery to body cells. Habitual hyperventilation leads to reduced arterial CO<sub>2</sub> and, therefore, less oxygen released to cells.

## Identifying habitual hyperventilators

Generally, habitual hyperventilators show:

- Mouth breathing, lips apart at rest.
- Shoulder/upper chest breathing at rest.
- Audible breathing at rest.
- Medical history of enlarged tonsils and/or adenoids, asthma, hay-fever, recurrent respiratory infections, snoring, teeth grinding or sleep apnea.
- Narrow upper arch form.
- Forward head/shoulder posture.
- Venous pooling. Typically, mouth breathers will exhibit venous pooling, which occurs as a result of the inferior orbital becoming constricted due to low levels of CO<sub>2</sub>, which usually has a vasodilatory effect. Additionally, this causes a reduction in N<sub>2</sub>O (found in the paranasal sinuses),<sup>15</sup> which is also vasodilatory and mixes with air when nasal breathing is predominate.

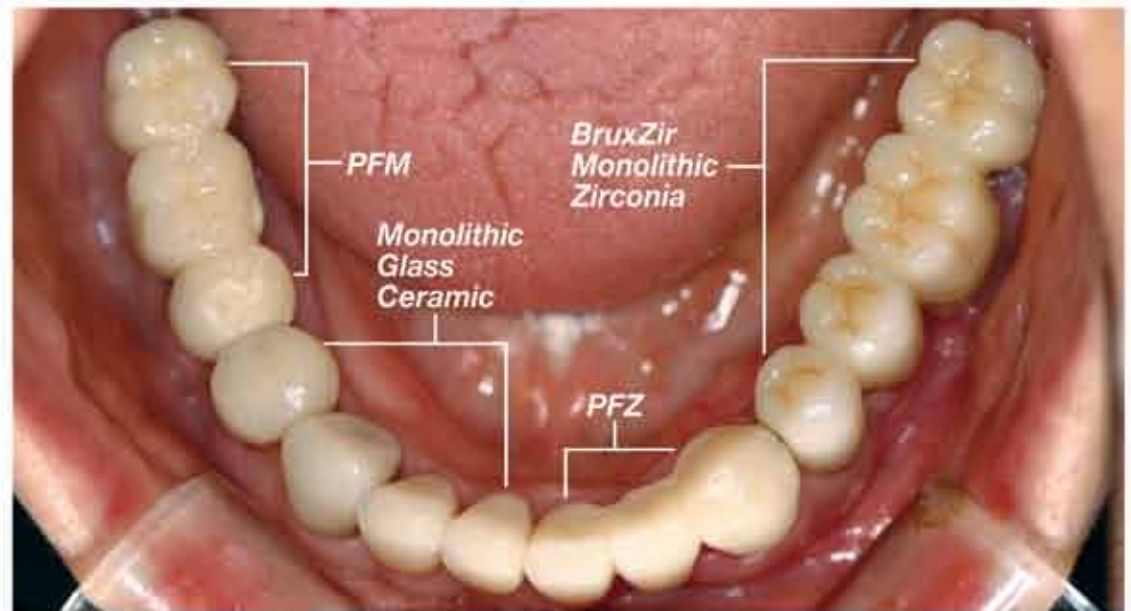
Patients with narrow maxillae can be expected to have a smaller than average pterygomaxillary fissure. As a result of these two factors, there is less venous drainage from the inferior orbital vein, which has to pass through the narrowed pterygomaxillary fissure. Deoxygenated or venous blood then pools beneath the eyes. When patients habitually breathe through their mouth and have a narrow maxilla, they will show symptoms of venous pooling.

Summary of factors associated with venous pooling: low blood CO<sub>2</sub> caused by habitual hyperventilation; low N<sub>2</sub>O caused by a lack of nasal breathing; reduced vasodilation caused by low CO<sub>2</sub> and N<sub>2</sub>O; small pterygomaxillary fissure as a result of constricted maxilla; and low tongue posture.

► See STABILITY, page A16

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