Out and about in Oahu

Welcome to Hawaii!
Now that most of us have flown here, from across the country or even from across the world, you don’t want to miss this opportunity to see the best of what Hawaii and Oahu have to offer. And with the exhibit hall doors closing each day at 3:30 p.m., it leaves plenty of time to get out and explore Oahu.

With Waikiki as a central hub, you can explore the legendary North Shore one day and spend the next on the east side snorkeling at Hanauma Bay, a protected marine sanctuary with tons of colorful fish. Thrill seekers can skydive at Mokuleia while daydreamers can relax peacefully on the beach.

Here are some tips and activities to consider when exploring Oahu.

Traveling on Oahu
You can get around by car rental, shuttle, taxi or Oahu’s public transportation sys-

Quench your thirst

This year’s AAO annual meeting promises to satisfy your need for knowledge with expert lecturers and an array of companies showing off new technology

By Sierra Rendon, Managing Editor

The sun is shining, the water is beckoning, it’s a beautiful day in Honolulu, and you’re headed inside? Yes, from at least 8 a.m. to 3:30 p.m., you’re going to want to head inside the Honolulu Convention Center to get the most out of the American Association of Orthodontist’s 112th annual meeting.

Nowhere else will you find the vast educational opportunities and C.E. opportunities aimed directly at orthodontists than this group’s annual meeting, which is why thousands of orthodontists and orthodontic staff make sure not to miss this educational program — even when the beaches of Waikiki are calling.

More than 160 clinicians and experts are here to speak on the most important trends, technologies and advance in orthodontics.

“We think that the exciting slate of speakers presenting during the next few days will satisfy your thirst for knowledge, while the relaxing environment will help you unwind and absorb the positive culture that permeates Hawaii,” said Michael B. Rogers, DDS, AAO president, in the program guide.

It’s also the perfect place to contemplate and make those big practice purchases you’ve been thinking about all year. With more than 300 exhibiting companies on tap, you’re sure to find everything you ever wanted and much more.

Education
Scientific lectures at the AAO will run the gamut from risk management to fundamentals to surgical considerations.

Here is just a small sampling of the extensive list of programs you may attend at the AAO:

• "The Role of Micro-implants in Surgi-
**THIRST, Page 1**

- “Case Report: A Class II Malocclusion with TMD Symptoms,” with Mariisa Chu Koehler (4:55 p.m. Sunday)
- “The Enigma, Evidence, Efficacy, Efficiency and Clinical Outcomes of Class II Growth Modification in Modern Day Orthodontics: Is There Consensus?” with William A. Wiltshire (8:35 a.m. Monday)
- “Generalized Use of CBCT in Orthodontic Practice: Is This a Dream?” with Sercan Akyalcin (12:30 p.m. Monday)
- “Biomechanics of Root Resorption: Genetic Predisposition and Physiologic Balance,” with Eugene Roberts (9:40 a.m. Tuesday)

In addition to the extensive schedule of scientific lectures for clinicians, there is also a complete schedule for orthodontic staff each day.

Even when the annual meeting ends on Tuesday, there are “post-conferences” Wednesday and Thursday in Maui, Oahu and Kauai. For more information, check with the registration desk.

**Shuttle Schedule**

The AAO shuttles will operate at 15-minute intervals in the mornings from 6 a.m. to 9 a.m. and late afternoons from 1 p.m. to 3:30 p.m., and at 30-minute intervals from 9 a.m. to 1 p.m.

Please refer to the shuttle signage that will be posted in each shuttle hotel for hours of operation and special event details. Routing and pickup locations are subject to change.

**Mobile Technology**

The 2012 Annual Session iPhone application and mobile Internet browser for other smart phones is available. View session details, create your own agenda, network with other attendees, complete session evaluations, view exhibitor information, check with the registration desk.

- First-time users will be asked to log in with their annual session registration confirmation numbers, create profiles and select new passwords.
- iPhone users should visit the app store via their phones and search for AAO 2012.
- *Your registration confirmation number and attendee service center login password can be found in your registration confirmation e-mail. The subject line of the confirmation is: Registration Confirmation — 2012 AAO Annual Session. Attendees who wish to use the mobile service but do not have a smart phone may rent an iPod Touch on-site.*

**Corrections**

Ortho Tribune strives to maintain the utmost accuracy in its news and clinical reports. If you find a factual error or content that requires clarification, please contact Managing Editor Sierra Rendon at s.rendon@orthol-tribune.com.

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Tell us what you think!

Do you have general comments or criticism you would like to share? Is there a particular topic you would like to see articles about in Ortho Tribune? Let us know by e-mailing feedback@dental-tribune.com. We look forward to hearing from you! If you would like to make any change to your subscription name, address or to opt out, please send us an e-mail at (name, address or to opt out) to process.

**Update**

Please refer to the shuttle signage that subscription changes can take up to 6 weeks to process.

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** Ortho Tribune **

**Ortho Tribune**

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Here at the AAO: What to know

What
American Association of Orthodontists' 112th Annual Session

When
Today through Tuesday

Where
Hawaii Convention Center, 1801 Kalakaua Ave., Honolulu

Online
www.aaomembers.org/mts/2012-AAO-Annual-Session.cfm

Exhibit hall hours
The exhibit hall is located in Level 1 of the Honolulu Convention Center.
• 8 a.m.–3:30 p.m. today, Sunday and Monday
• 8 a.m. –2 p.m. Tuesday

Table clinics
7:30 a.m.–2:30 p.m. today, Sunday, Monday and Tuesday

Scientific posterboard exhibits
9-11 a.m. Sunday

Attire
The official dress code of the AAO is “Aloha Wear,” which includes aloha shirts, khakis and loafers for men and aloha shirts, khakis, skirts, city shorts, dresses, loafers and sandals for women.

C.E. Pavilion
While attending the AAO, record the lectures you attend and print your C.E. hours report at the C.E. Pavilion on the Level 3 Breezeway.

Shuttle schedule
The AAO shuttles will operate at 15-minute intervals in the mornings from 6 a.m. to 9 a.m. and late afternoons from 1 p.m. to 3:30 p.m., and at 30-minute intervals during mid-day from 9 a.m. to 1 p.m. every day.

The following hotels will have shuttle service: Hilton Hawaiian Village, Courtyard, Doubletree, Embassy Suites, Hilton Waikiki Beach, Hyatt Regency, Moana Surfrider, Royal Hawaiian, Sheraton Princess, Sheraton Waikiki and Waikiki Beach Marriott.

Please refer to the shuttle signage, which will be posted in each shuttle hotel, for hours of operation and special event details. Routing and pickup locations are subject to change.

Camp AAO
Children 6 months to 12 years old are welcome to participate in the Camp AAO on-site program. The activity center will be located at the Hawaii Convention Center, Room 321, and will be open daily.

Children ages 6 to 12 have the opportunity to participate in educational youth tours as well. The tours depart and return to the on-site activity center each day.

Those children participating in tours also have the option to sign up for hourly on-site attendance prior to and following the tour. An hourly rate will apply.

The youth tour program will include visits to Waikiki Aquarium, Honolulu Zoo, Bishop Museum, Dole Pineapple Plantation and the Hawaii Children’s Discovery Center.

Professional lecture recordings
Most of the lectures presented at this conference will be audio recorded and available as a package set on a DVD-ROM in MP3 format. Most of these recorded lectures will also include the speaker’s screen presentation as an integrated synchronized file. On-site orders will be available for $558 (includes shipping).

Giving back
Annual session attendees will have an opportunity to “give back” to the Honolulu community by aiding hungry residents of Oahu. The annual session “Virtual Food Bank” kiosk on Level 2 of the Convention Center will accept contributions and provide receipts for donations. All funds contributed will go to a local food bank.

Here at the AAO: What to know

Photo/Hawaii Tourism Authority, Chuck Painter

The Hawaii Convention Center at night.

The Hawaii Convention Center at night.

Photo/Hawaii Tourism Authority, Chuck Painter

The Hawaii Convention Center at night.
Product scrapbook

Here is a look at some of the products you’ll want to check out in the exhibit hall

The GXDP-700 Series from Gendex starts with a digital panoramic system with sophisticated styling and an ergonomic design, including an advanced touchscreen interface. The GXDP-700 is a modular system, upgradable from 2-D panoramic to cephalometrics or 3-D cone beam with expandable field-of-views or both. Visit booth No. 4010 to learn more!

Photo/Provided by Gendex

Cloud9Ortho is the first true cloud-based orthodontic practice management software, which means no more servers. You can use Macs or PCs, have fast speed in your satellite offices and lower your IT cost. Stop by booth No. 239 for a free demo.

Photo/Provided by Cloud9Ortho

The 4-Part MiniScope by Specialty Appliances allows for greater opening and lateral movement while keeping the forces in the proper direction. Stop by booth No. 946 for more information.

Photo/Provided by Specialty Appliances

Visit Dentaurum at booth No. 1037 to see its new line of M-Series Buccal Tubes. These tubes feature a patented laser-structured bonding pad that is guaranteed to bond better than any other tube on the market or Dentaurum refunds your purchase at 150 percent! You can also call (800) 523-3946 or e-mail sales@dentaurum-us.com for more information.

Photo/Provided by Dentaurum

Stop by booth No. 547 to take a look at this digital ‘SLR’ camera with traditional ringlight or wireless ringflash. The camera also comes with a 90 mm macro lens with orthodontic settings.

Photo/Provided by CliniPix
For a glove that feels inexistent and provides the maneuverability of a bare hand, take a look at Plak Smacker’s newest gloves: the Ultra Thin Nitrile. The Ultra Thin Nitrile — part of Plak Smacker’s new TruFit line — is a latex-free glove made with a soft nitrile material. This allows the glove to be used during appointments where the patient or clinician has a latex allergy. Free TruFit samples are available at booth No. 1847. They are available in seashell white in both 100-count and 200-count boxes. Photo/Provided by Plak Smacker

Opal Orthodontics’ new line of highly specialized instruments were handcrafted in Germany by Hammacher. Each instrument is individually inspected for workmanship and accuracy every step of the way to guarantee consistency. The line of instruments includes pliers and cutters. Stop by booth No. 409 to check them out. Photo/Provided by Opal Orthodontics

Headquartered in Houston, Texas, ClearCorrect serves orthodontic industries by providing an affordable and doctor-friendly clear aligner system. No course is required. To send in a case, simply call and register at (888) 331-3323 with your new accounts specialist or visit ClearCorrect at booth No. 856. Photo/Provided by ClearCorrect

Ortho Organizers is shifting the way you think about orthodontics. To limit extractions and turn difficult Class II cases into simpler Class I cases is a dream come true for you and your patients with the Carriere Distalizer Appliance. See the appliance at Ortho Organizers’ booth, No. 1227. Photo/Provided by Ortho Organizers


See this product at Booth 1037

Guaranteed* Better Bond Or Get 150% Money Back! (Refund limited to trial offer)
Edge combines management, imaging and communication

Edge from Ortho2 delivers an all-encompassing practice management, imaging, and communication software with plenty of features, high capability and integrated programs — all supported by a customer service team. Edge features private Cloud Computing, with off-site data hosting options, innovative imaging, reminders, patient-education animations and more.

With private, secure Cloud Computing from Ortho2, your practice can eliminate the cost, complexity and risk associated with in-house servers and backups. This feature allows you to fully access the secure web-based data infrastructure from anywhere, even your smartphone.

- 35 percent to 44 percent cost savings with lower initial and ongoing hardware costs
- Secure data protected by world-class firewalls
- Reliable backups on multiple platforms
- Decreased risk of theft, vandalism and fire
- Two data access pathways: Internet or cell-based network

The design inside Edge uses the latest user interface innovations, such as navigation elements that present meaningful options, hover view and use of drag-and-drop. Edge is backed by an industry-leading customer-support team.

Check out other advancements available with Edge.

- **Edge Imaging** is one of the most robust imaging technologies available today, according to Ortho2. With an intuitive interface, time-saving features and easy customization, Edge Imaging can help manage all of your patient image files.
- **Premier Imaging** is an optional upgrade for Edge Imaging and includes comprehensive image morphing, cephalometric analysis and Bolton Standards. Superimpose multiple time points on structures rather than oriented planes or use Bolton Standards for no-trace quick review. There is no additional cost for a multi-user license or digital X-ray integration.
- **Edge Animations** are patient-education animations for improved compliance and case presentation, including surgical and 3-D animations. With Edge Animations, you have the ability to edit and customize videos, using annotation and audio controls or drag-and-drop, so virtually any image or movie can be included. Publish your animations to disc, e-mail or YouTube.
- **Edge Reminders** is an easy-to-use system for automating your patient reminders. Send automated phone, text and e-mail appointment reminders for any range of upcoming appointment dates, recall reminders, birthday greetings and more. Patient responses are even integrated into your schedule. Edge Reminders offers low, flat billing with no minimum monthly charge.

Here at the AAO

For more information, contact Ortho2 at (800) 678-4644 or by e-mail at sales@ortho2.com, go online to www.ortho2.com or stop by the booth, No. 2003.

You know how important photographs are to your practice, but you don’t know who to turn to for advice. PhotoMed understands your need and can help you choose the right camera. We also include support and loan equipment program for the life of the camera so you have someone to turn to if you have questions.

PhotoMed dental cameras feature the best digital camera equipment available. The Canon G12, Rebel T3 and T3i are great choices.

Choosing a quality dental system for your practice doesn’t have to be difficult. Call the experts at PhotoMed and we’ll help you with all of your camera questions.

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Opal Orthodontics will preview its new VALO Ortho Cordless curing light this week at the 2012 AAO Annual Session here in Honolulu.

VALO Ortho Cordless follows suit with VALO Ortho, its expertly engineered counterpart, adding a battery-operated, cordless wand for mobility. Both lights maintain the powerfully efficient broadband technology that VALO has been awarded from notable dental organizations. VALO Ortho Cordless is designed for the orthodontist performing direct and indirect orthodontic procedures, who is seeking the quality, durability and power of VALO, now with the convenience of a cordless curing light.

The light features custom, multi-wavelength Light Emitting Diodes (LEDs) to produce high-intensity light at 395-480 nm — capable of polymerizing all light-cured dental materials quickly and efficiently.

VALO Ortho Cordless comes with VALO rechargeable batteries and a battery charger suitable for power outlets from 100 to 240 volts. The standard lithium iron phosphate rechargeable batteries are safe, inexpensive and optimized for power and longevity. The new handpiece is designed to rest in a standard dental unit bracket, or it can be custom-mounted using the bracket included in the kit. It offers consistent curing intensity and output in a durable, aerospace aluminum body with Teflon coating and a sleek, ergonomic design.

About Opal Orthodontics
Opal Orthodontics, a division of Ultradent Products, Inc., is committed to bringing new and innovative products to the orthodontic market. Opal Orthodontics products include bands and brackets, archwires, adhesives, instruments, elastomerics and homecare products designed to meet the demanding needs of today’s orthodontics practices.

Opal Orthodontics is also a proud partner of Susan G. Komen for the Cure in its fight to eliminate breast cancer.

For more information about Opal Orthodontics, call (888) 863-5883 or visit www.opalorthodontics.com.
Ortho Classic offers new marketing, design service

Founded in 1991, World Class Technology/Ortho Classic has quickly grown from strictly manufacturing orthodontic products for some of the industry’s largest suppliers to a direct-to-doctor manufacturer and supplier.

During this growth, the company has placed further focus on offering industry-specific solutions and services from an in-house orthodontic laboratory to its newest service offering, OrthoAMP.

OrthoAMP is a marketing and design service primarily focused on helping orthodontic practices create innovative and cohesive multi-channel marketing assets. With strategic focus placed on advertising, marketing and practice building (or AMP), OrthoAMP services include many diversified solutions from professional print and web design solutions to promotional items and advertising.

Each and every project is custom-designed by graphic designers and marketing specialists who currently work in the orthodontic industry.

To best facilitate this new service, Ortho Classic has built a state-of-the-art marketing and graphic design and production room in the heart of its 60,000-square-foot manufacturing headquarters in McMinnville, Ore.

“Everything we do is based on vertical integration; we design and manufacture our entire product line in-house, so the next logical step was to bring in the printing equipment for our graphic designers.”

Ortho Classic aims to provide design and marketing expertise on projects of any size, making every effort to understand your practice’s business needs and goals. Its team of marketing experts provide innovative solutions designed to draw attention and improve the visibility of your practice.

For more information, contact Ortho Classic at (866) 752-0065 or visit its booth, No. 1603.

“‘The next logical step was to bring in the printing equipment for our graphic designers.’”

Ortho Classic offers new marketing, design service

“‘It just made sense for us,’” said Ortho Classic President Rolf Hagelganz of the new design and production room.

To best facilitate this new service, Ortho Classic has built a state-of-the-art marketing and graphic design and production room in the heart of its 60,000-square-foot manufacturing headquarters in McMinnville, Ore.

Equipped with an in-house photo studio, wide format printer and a 25-foot, print-on-demand digital press, there are very few jobs the company can’t handle.

“The next logical step was to bring in the printing equipment for our graphic designers.”

Ortho Classic aims to provide design and marketing expertise on projects of any size, making every effort to understand your practice’s business needs and goals. Its team of marketing experts provide innovative solutions designed to draw attention and improve the visibility of your practice.

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Here at the AAO

For more information, contact Ortho Classic at (866) 752-0065 or visit its booth, No. 1603.

The Canon Rebel T3i is the first Rebel model to include the ability to work with wireless flashes. This feature was previously reserved for higher end, professional cameras and allows the T3i to work with modern wireless macro flashes.

Doing away with the flash power pack and cord results in a lighter, more balanced camera.

The Rebel T3i is an 18-megapixel digital camera that features an articulating LCD screen and a 1080p HD video mode.

PhotoMed offers two wireless flash options for the T3i as well as two traditional macro flashes and four macro lens options.

For more information or to see the Canon Rebel T3i for yourself, visit www.photomed.net, call (800) 998-7765 or stop by the PhotoMed booth, No. 847, here during the AAO Annual Session.

Here at the AAO

For more information, contact Ortho Classic at (866) 752-0065 or visit its booth, No. 1603.

The PLANMECA ProMax® 3D Mid is a CBVT all-in-one unit, including 3-D imaging, panoramic, extraoral biwareing and cephalometric, that can accommodate all of your clinical needs.

The PLANMECA ProMax 3D Mid provides an extended selection of 3-D volume sizes combined with traditional 2-D panoramic and cephalometric imaging.

The unit has the unique ability to meet all of your diagnostic needs, including implantology, endodontics, periodontics and orthodontics, as well as dental and maxillofacial surgery and TMJ analysis.

The volume sizes range from ø3.4 by 4.2 cm to ø16 by 16 cm. This wide selection of volume sizes allows for optimizing the imaging area according to specific diagnostic task — always complying with the best practices of dentistry, including the ALARA (as low as reasonably achievable) principle, to minimize radiation.

For more information on the PLANMECA ProMax 3D Mid, stop by the Patterson Dental booth, No. 655, here during the AAO.

Here at the AAO

For more information, contact Ortho Classic at (866) 752-0065 or visit its booth, No. 1603.
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Practice Complete Management.
Advanced ortho case control with Tx STUDIO for i-CAT

In orthodontics, as with any dental specialty, the more details the clinician can see, the more control is possible over the treatment outcome.

For this reason, CBCT imaging is increasingly becoming a valuable orthodontic tool for effective, less invasive treatment planning. Now, orthodontists with i-CAT® have access to software, Tx STUDIO™, that makes diagnosis, treatment planning and implementation even more precise and predictable. With its wide selection of treatment-planning features, Tx STUDIO is an integral part of i-CAT cone beam 3-D systems, which are known for unparalleled clinical and dose control, as well as the industry’s fastest workflow, the company says.

The process begins with an i-CAT scan from which all initial records, including panoramic and cephalometric views, can be accessed with a single scan. Accessing cross-sectional views and volume renderings from the scan shows the orthodontist the precise location of impacted and unerupted teeth that can interfere or prevent proper tooth movement during treatment. Then, treatment planning and implementation is facilitated with the Tx STUDIO.

Fully integrated and exclusive to award-winning i-CAT 3-D systems, Tx STUDIO is the only software designed for a cone-beam 3-D unit that does everything from diagnostics to implant and orthodontic treatment planning.

Because it was designed by clinicians, Tx STUDIO addresses the goals and concerns of the orthodontist, resulting in a fast workflow and more control over results. Tx STUDIO’s optional 3-D Cephalometric Analysis package results in quicker, more accurate cephal tracings than traditional 2-D cephal tracings.

Another innovative feature is the new face-MATCH photo-wrapping feature that allows easy and immediate wrapping of a facial photo taken with a standard digital camera onto the 3-D volume. With no special camera set-up required, face-MATCH demonstrates the impact of anatomy and treatment plan on the profile and personalizes the care to each patient.

When viewing this application, patients are amazed to see their own features instead of a model or stock images and, as a result, are often more confident the treatment will be specific to their needs.

Tx STUDIO also includes a feature that provides virtual study models in occlusion, complete with the crowns, roots and bone. With this, the orthodontist can predict soft-tissue changes that may result from orthodontic or surgical treatments. In addition, Tx STUDIO includes an anchor pin library for virtual TAD placement.

Airway analysis and sleep studies are increasingly becoming an important part of the orthodontic workup. As a result of these studies, clinicians can provide orthodontic services, appliances or recommend surgery. Tx STUDIO gives clinicians the ability for instant measurement of total airway volume, localization and area measurements of maximum constriction and also automatic color-coded constriction values of the airway volume.

To implement treatment that relieves the pain of joint disorders, the TMJ visualization tool allows orthodontists to track condylar position over the course of treatment by showing superimposed changes to the TMJ complex over time.

The ability to forecast the changes over the course of treatment is beneficial to the clinician for case control, but it is also imperative to be able to share this information with other specialist colleagues and use it to show patients why treatment is necessary.

The Diagnostic Reports Tool option quickly and efficiently fosters communication by using customized templates. The combination of scan views and renderings that are accomplished in the software lets patients view and understand their anatomy, so they comprehend how treatment will evolve. Understanding leads to greater compliance and even faster and more successful treatment outcomes.

“Tx STUDIO gives our orthodontic customers access to advanced 3-D treatment tools that result in better diagnostics and treatment for the patient, and allows the clinician to advance the practice to provide more options,” said Mark Hillbrandt, business unit director for i-CAT. “More information on the patient’s dentition leads to better planning and less surprises during treatment.”
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Myofunctional orthodontics and myofunctional therapy

By Chris Farrell, BDS, Sydney

A brief history of orthodontics

More than 100 years ago, and before Edward Angle, dentists realized they could move teeth into a more esthetic position by applying various mechanical devices to the teeth. This, in turn, caused apposition and deposition of bone in areas where forces were increased or decreased. Teeth could be moved into a more esthetic position, and so the orthodontic profession was born.

Angle clearly stated his view that it was unethical to extract teeth for orthodontic purposes and proved that, with his complex fixed appliances, he was able to expand the arches and align the teeth. The problem at this stage was that a lot of these cases (possibly most of them) relapsed.

So Tweed, who was Angle’s student, suggested that the extraction of teeth was the only way to get stability. In the 1950s, extraction orthodontics became the normal practice after the Australian Orthodontist Percy Raymond Begg developed the first straight wire appliance, which required less wire bending skills than previous methods.

Today, orthodontists revere self-ligating brackets as the key to non-extraction orthodontics. Angle would be amused if he were around today. Has the stability of orthodontics changed? No. The orthodontic profession has accepted that to expect case stability using fixed appliances without fitting permanent retainers is both impractical and unrealistic.

Progress in orthodontic stability is achieved by advances in flowable composite, rather than advances in orthodontic technique. The Australian Society of Orthodontists (ASO) website is an example of the widespread acceptance that stability is not possible with tooth-centred orthodontics.1

“Teeth may have a tendency to change their positions after treatment. The long term, faithful wearing of retainers should reduce this tendency.” (Source: www.aso.org.au/Docs/Orthodontics/ Risks.htm)

Myofunctional therapy

Understanding how the oral muscles and the tongue influence the jaws and dental arches predates Angle by a long way. The history of myofunctional therapy dates back to the 15th century in Italy. In 1906, American Orthodontist Alfred Rodgers experimented with facial muscle exercises and, in 1918, wrote a paper titled “Living Orthodontic Appliances,” in which he cited that muscle function alone would correct malocclusion. In 1907, renowned orthodontist Edward H. Angle’s textbook “Malocclusion of the Teeth” detailed the effects of oral habits on occlusion.

Angle stated that in his view, every malocclusion has a myofunctional cause. Myofunctional therapy became the popular “adjunct to orthodontics” in the 1960s and 1970s, when Daniel Garliner created the Myofunctional Institute in Florida.

Garliner trained thousands of myo-
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tongue thrusting or swallowing incorrectly can be observed in most children. All will have a developing malocclusion. The problem with treating myofunctional habits early is that the compliant patient will no longer need braces. This is one of the biggest dilemmas facing an orthodontist today. Correct the causes early and the market for braces can be drastically decreased. However, treating children earlier at their optimal growth stage (between ages 5-8 years) using myofunctional orthodontic techniques can make orthodontic treatment later easier and more stable.

Myofunctional orthodontics is not just about moving teeth. The first objective of myofunctional orthodontics is to have enough space for the tongue to sit in the maxilla. The second objective is to have the patient breathing through their nose with their lips together. If the patient is not breathing through their nose, then correct arch development and correct dental alignment cannot be achieved. For patients unwilling or unable to correct their own dysfunctional habits (chronic mouth breathers, for example), correct dental alignment and arch development is only possible if the patient accepts wire and glue for life. Occasionally patients do accept this, and so sometimes retainers are fitted under the direction of the patient or parent. This occurs for only a minority of cases.

Once you can diagnose the causes of the malocclusion, you are capable of resolving the malocclusion, rather than just treating its symptoms. Treating the causes of the malocclusion, rather than just relying on mechanical forces to align teeth has great benefits for both patients and parents. If you'd like to learn more, MRC offers Myofunctional Orthodontic training.

Benefits of myofunctional orthodontics

Myofunctional orthodontics produces healthier patients who are able to grow without the detrimental habits that limit facial growth. Patients who stop mouth breathing are healthier and get less allergies and infections because of breathing through their nose. Fixing incorrect swallowing patterns and improving poor nutrition allows correct downward and forward facial growth and development.

Case after case using myofunctional orthodontics produces stable maxillary arch development and resolves lower anterior crowding with little mechanical effort. No braces are needed, and for the majority, no permanent retainers are required.

Reference


About the clinician

Chris Farrell, BDS, graduated from Sydney University in 1971 with a comprehensive knowledge of traditional orthodontics using the BEGG technique. Through clinical experience, he took an interest in TMD/TMJ disorder and, after further research, Farrell discovered that the etiology of malocclusion and TMJ Disorder was myofunctional, contradicting the established views of his profession. Farrell founded Myofunctional Research Co. (MRC) in 1989 and has become the leading designer of intra-oral appliances for orthodontics, TMJ disorder and sports mouthguards.

functional therapists and wrote multiple books on the subject. The new etiology of malocclusion was confirmed by rapid success in treating malocclusion with greater stability. Unfortunately, this success was not evident in 100 percent of cases. Arguably, the ensuing decades saw myofunctional therapy diminish in popularity due to the then time consuming treatment being seen as only an optional little adjunct for cases where the patient exhibited tongue thrusting. Tooth-centered orthodontics with direct bonded brackets and super-elastic wires no longer warranted the “tongue thrust therapist” in all but the occasional cases.

Myofunctional orthodontics

Myofunctional orthodontics put forward that the cause of malocclusion was muscle dysfunction. From an early age, mouth breathing, thumb sucking,
The North Shore
If there is such a thing as a perfect wave, you’ll likely find it on the North Shore. The big, glassy winter waves of this leg- endary surf mecca attract the best surf- ers in the world. Stretching for more than seven miles, the beaches of the North Shore host the world’s premier surfing competitions, including the Super Bowl of wave-riding, the Vans Triple Crown of Surfing.

To get to the North Shore, drive along Northwestern Kamehameha Highway (Highway 83) from Haleiwa to Sunset Beach. From Waikiki, it takes about 45 minutes to get to Haleiwa and an hour to get to the beaches.

Top places to visit in the North Shore:
• Waimea Bay: Waimea Bay is the birth- place of big wave surfing and is the venue for the Quicksilver in Memory of Ed- die Aikau Big Wave Memorial. This surf competition pays homage to legendary surfer Eddie Aikau and takes place only when the epic Waimea waves are at least 20 feet high.
• Banzai Pipeline (Ehukai Beach): This laid-back surf town is the gateway to the surfing. With a country feel is the gateway to the second contest in the Vans Triple Crown of Surfing.
• Sunset Beach: The northernmost surf spot on the North Shore is Sunset Beach. The long wave breaks here are the setting for the O’Neill World Cup of Surfing, the second contest in the Vans Triple Crown of surfing.
• Haleiwa: This laid-back surf town with a country feel is the gateway to the North Shore, filled with great restaurants and shops.

Waikiki
World-famous Waikiki was once a play- ground for Hawaiian royalty. Known in Hawaiian as “spouting waters,” Waikiki was introduced to the world when its first hotel, the Moana Surfrider, was built on its shores in 1901.

Today, Waikiki is a vibrant gathering place for visitors from around the world. Along the main strip of Kalakaua Avenue, you’ll find shopping, dining and enter- tainment.

At legendary Waikiki Beach, a statue of Hawaiian hero Duke Kahanamoku welcomes you with open arms. Regarded as the “Father of modern surfing,” Kah- anakomoku grew up and surfed in Waikiki during the turn of the century. Discov- ered as a swimming sensation, he won Olympic gold medals in the 100-meter freestyle in 1912 and 1920, then went on to set records in Hollywood and use his fame to spread the popularity of surfing.

Waikiki has a variety of beaches to ex- plore. The main stretches include:
• Waikiki Beach: This is the classic shoreline behind the Sheraton Waikiki, the Royal Hawaiian Hotel and the Moana Surfrider.
• Kuhio Beach: While the world thinks of Waikiki, this golden stretch of sand along Kalakaua Avenue is what comes to mind. To the east, Kapahulu Pier extends into the Pacific, giving you a view of the Waikiki shoreline. The rock “Wall” shelters the beach, providing a tranquil spot to swim.
• Queens Surf Beach: Past the volleyball nets at the Diamond Head end of Waikiki, the beaches get less crowded and grassy areas spring up, offering spots for pic- nicking.

To learn more about Waikiki’s history, take a stroll along the Waikiki Historic Trail, which highlights 23 historic sites, 19 of which are marked by bronze surf- boards with a wealth of historical in- formation.

The trail begins at the Royal Hawaiian Center in the heart of Waikiki. The Royal Grove in historic Helumoa was once home to 10,000 coconut trees. The trail continues to the sacred Wizard stones off of Kuhio Beach; King’s Village, a shopping center that was once the residence of King Kalakaua; and the Duke Kah- anamoku statue.

Pearl Harbor
Pearl Harbor, named for the pearl oysters once harvested there, is the largest natu- ral harbor in Hawaii and the only naval base in the United States to be designat- ed a National Historical Landmark. The aerial attack on Pearl Harbor resulted in 2,390 dead and hundreds wounded, and drove the United States into World War II.

Today, these attacks are honored by me- morial sites.
• USS Arizona Memorial: At 8:06 a.m. on Dec. 7, 1941, the USS Arizona was hit by a 1,760-pound armor-piercing bomb, which ignited its forward ammunition magazine. The catastrophic explosion that resulted sank this massive battle- ship in nine minutes, killing 1,177 crew- men.

Begin your tour at the Visitor Center where you can view a film about the at- tack and viewplaques honoring lives lost on that fateful day. You’ll then take a boat shuttle to the USS Arizona Memorial, a floating memorial built over the sunken hull of the Battleship USS Arizona, the final resting place for many of the ship’s crew. In the shrine room, a marble wall exhibits the names of the men who lost their lives on that fateful day.

• Battleship Missouri Memorial: General MacArthur accepted the unconditional Japanese surrender that ended WWII on Sept. 2, 1945, on the Surrender Deck of the Battleship Missouri Memorial. To- day, the massive “Mighty Mo” is a living museum, with exhibits spanning three wars and five decades of service. Explore the decks of this 60,000-ton battleship, three football fields long and 20 stories tall. Stand on the Surrender Deck and view the documents that ended the war.

Bishop Museum
Honolulu’s Bishop Museum is Hawaii’s largest museum dedicated to studying and preserving the history of Hawaii and the Pacific. Originally designed to house the extensive collection of Hawaiian arti- facts and royal family heirlooms of Prin- cess Bernice Pauahi Bishop, a descendent of King Kamehameha I, the museum is now the premier natural and cultural history institution in the Pacific.

One of Oahu’s most historic places, the museum holds millions of artifacts, documents and photos about Hawaii and other Polynesian cultures. Visit the new- ly renovated Hawaiian Hall, which im- merses you in Native Hawaiian culture and history by showcasing a variety of important artifacts. In the planetarium, kids can learn how voyagers navigated the Pacific using the stars. In the Science Adventure Center, children can see Ha- waii’s unique natural environment like never before through a variety of inter- active exhibits.

Note that the museum is closed every Tuesday but is open year-round with reg- ular hours from 9 a.m. to 5 p.m.

(Source: Hawaii Visitors and Convention Bureau)