Program Abstracts

ALD 2021 Pediatric Health Symposium

Functional Airway is the Cornerstone of Correct Breathing Growth and Development

6 CE Sessions 12 CEUs Available Live and On Demand

ALD is hosting the second ALD Pediatric Health Symposium, spotlighting *Functional Airway is the Cornerstone of Growth and Development*. Join experts in pediatric health to discuss the importance of correct breathing and how an open airway contributes to a child's overall health, growth, and development. The presentations will focus on Obstructive Sleep Apnea (OSA), Myofunctional Therapy, and why Restricted Tethered Oral Tissues (RTOTs) affect infant brain development and other body systems.

This series presentations will help you to appreciate how Functional Airway is the cornerstone of health. You will learn medical treatments for pediatric obstructive sleep-disordered breathing and two secondary (adjunctive) intervention strategies. Understanding the central role of the tongue function in craniofacial growth and development and the relationship between tongue-tie, lingual hypotonicity, and orthodontic alterations will lead to more precise surgery and predictable outcomes.

The invited speakers are internationally well-known for their expertise and knowledge in pediatric airway management.

Educational Objectives

- Learn to screen for potential obstructive sleep apnea in infants and toddlers. (Dr. Heit)
- Understand why and when myofunctional therapy must be done with laser frenectomies. (Joy Moeller)
- Understand why RTOTs affect infant brain development and other body systems. (Dr. Kotlow)
- Describe the interrelationships and functioning of the entire airway complex. (Dr. Price)
- Understand the developmental and functional challenges which lead to airway disorders.
- Identify at least three signs of sleep-disordered breathing in a child. (Dr. Boyd)
- Understand the central role of the tongue function in craniofacial growth and development.

MODERATORS

Dr. Lynda Dean-Duru and **Dr. Krystle Dean-Duru**
Ashburn Children's Dentistry, Ashburn, Virginia

October 6, 2021

An Infant's Tongue: It Needs Proper Function and Mobility for More than Just Successful Breastfeeding

Larry Kotlow, DDS
Private Practice | Albany, New York, United States

Abstract

As the medical profession begins to learn and understand that the benefits of breastfeeding extend far beyond just providing a source of food for infants and more and more mothers have chosen to nurse their infants, dentists need to be aware of how to be part of the health care management of infants. As more mothers begin to breastfeed, the effects of restrictive tethered oral tissues (RTOTs) such as ankyloglossia need to be addressed to allow a pain-free and comfortable mother-infant relationship. The purpose of this presentation is to elevate the understanding that there are many

infant development and growth problems that may be related to the RTOTs. RTOTs need to be considered as a part of differential diagnostic examinations of infant growth and development problems. Discussion will include a significant amount of new information which was introduced at the successful 2020 airway symposium explaining how RTOTs can be a barrier for healthy infant growth and development by causing infant air-induced reflux, affecting brain development, contributing to infant sleep-disordered breathing, and more.

Educational Objectives

- Understand why RTOTs affect infant brain development and other body systems.
- Discover how the maxillary arch is the primary architect of the upper and lower jaws.
- Learn how to complete a proper oral exam on infants and why it is important to include RTOTs as part of every medical examination.

Biography

Dr. Kotlow is a 1972 graduate of the State University of New York (SUNY) at Buffalo Dental School, and completed his pediatric dental residency at the Children's Hospital in Cincinnati, Ohio, in 1974. He became Board Certified in Pediatric Dentistry in 1980, and is a life member of the American Dental Association (ADA), Life Fellow of the American Board of Pediatric Dentistry (FABPD), life member of the New York State Dental Association (NYSDA) and Third District Dental Society of New York, member of American Academy of Physiologic Medicine and Dentistry (AAPMD), and member of the Academy of Laser Dentistry (ALD) since 2000. He has achieved Mastership from the Academy of Laser Dentistry (MALD), ALD Advanced Proficiency in Er:YAG, Nd:YAG, and CO_2 (9300 nm) lasers, and Standard Proficiency in diode (810 nm and 980 nm) lasers. Dr. Kotlow is the author of more than 30 peer-reviewed articles, two textbooks (*Atlas of TOTS* and *SOS 4 TOTS*) about lasers, infant frenectomies, and breastfeeding. He has contributed to various chapters in six textbooks in laser dentistry.

Disclosure: In the past Dr. Kotlow has provided laser educational presentations, videos, and consultations for HOYA ConBio and Fotona's PowerLase AT Spa and LightWalker Lasers. He has contributed to the development of infant safety goggles with Innovative Optics. At the present time, he receives honoraria for training and provides education for Convergent Dental. He is a beta tester of new upgrades and software for the Solea all-tissue carbon dioxide dental laser (9300 nm), as well as a dental consultant to and investor in Convergent Dental.

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Pediatric Airway in Infants and Toddlers as Related to Tethered Oral Tissues

Tammarie Heit, DDS, MICCMO
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Abstract
Obstructive Sleep Apnea (OSA) is prevalent and remains largely undiagnosed or misdiagnosed in children because there has traditionally been little training in medical or dental schools on this topic. The consequences are that children are diagnosed and treated for a different condition whose root cause may not be addressed. Physicians and dentists must learn the signs and symptoms of sleep issues in infants and toddlers, then be able to determine the diagnosis of OSA. Appropriate treatment can then be rendered to deal with obstructive sleep apnea and all the resulting conditions. Tethered oral tissues released in infants might prevent obstructive sleep apnea and the downstream effects that involve every specialty in medicine. This presentation will examine the evidence that sleep apnea is a disease of craniofacial anatomy which is affected by a suboptimally functioning tongue. If the tongue is tethered, optimal function and therefore optimal anatomy of the craniofacial region may not be achieved. The maxilla may be underdeveloped, resulting in crowded teeth and compromised upper airway leading to obstructive sleep apnea. What if maxillary deficiency and the development of OSA can be prevented by releasing tethered tissues within the first year of life? What are the risks and benefits of this surgical procedure on an infant? This is very powerful knowledge for dentistry and medicine.

Educational Objectives

- Learn to screen for potential obstructive sleep apnea in infants and toddlers.
- Identify the technology available to measure obstructive sleep apnea in toddlers.
- Determine how medical doctors and dentists can collaborate to diagnose and prevent obstructive sleep apnea.

Biography
Dr. Heit is a clinical general dentist who practices all areas of general dentistry with a special interest of craniofacial development and optimization in patients of all ages. In her 25-year career, her major accomplishment is the practice of craniofacial sleep medicine to reduce, eliminate, and prevent obstructive sleep apnea and pain in conjunction with general dentistry in Edmonton, Alberta, Canada. She is a published author, an international speaker, and a clinical scientist and researcher working collaboratively with medical specialists. She is an Integrated Clinical Advisor in the Vivos Integrated Healthcare Network where she leads a multidisciplinary team of medical doctors, general dentists, and their staff. A consultant for Vivos Therapeutics and a member of the clinical advisory board since the

inception of the company, she works with clinicians from around the world to conduct certified research and develop clinical protocols for the treatment of craniofacial developmental deficiencies that can result in sleep apnea and craniofacial pain. Dr. Heit has achieved her Mastership at the International College of Craniomandibular Orthopedics in Nagano, Japan, in 2010 with the thesis "Neuromuscular Orthotics in the Treatment of Craniomandibular Disorders and the Effects on Patients with Multiple Sclerosis: A Pilot Study." She is on the Board of Regents at The International College of Craniomandibular Orthopedics and is head of the mastership committee. Dr. Heit practices collaboratively with all specialties in medicine and promotes multidisciplinary collaboration in the clinic as an effective tool to help patients in all practices.

Disclosure: Dr. Heit lectures, is a clinical advisor and consultant for Vivos Therapeutics, and has shares in this company.

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October 20, 2021

Functional Airway Management

Roger Price, BSc Pharm (Hons), BSc Clinical Nutrition, Adv Dipl Clinical Massage Therapy, Cert Integrative Medicine
Breathing Well Pty Ltd | Sydney, New South Wales, Australia

Abstract
Life is nothing other than a breath-by-breath survival process and this instinct is so powerful that it will create whatever parafunctions or dysfunctions that are necessary to be able to take the next breath. 'Sleep Medicine' and 'Dental Sleep Medicine' were created to address the diseased state resulting from disrupted sleep. There is nothing in either process that is designed to identify the origin of the dysfunction, and no processes to address and rectify these dysfunctional behavioral patterns. Functional Airway is not a medical or dental specialty. It is the province of qualified and experienced Manual Therapists who fully understand the functioning of the entire human body and how the various systems interact and compensate. Furthermore, the very structure and scope of license in both medicine and dentistry – coupled with the overarching controls exerted by insurance companies and those bodies creating medical billing codes – makes the resolution of the underlying causes of the problem all but impossible to manage. Airway dysfunction can begin very early in life – long before an infant or small child starts to exhibit medical or dental symptoms. By the time the person becomes symptomatic the damage has already been done. Functional Airway Management is designed to identify and address compensation and dysfunction at the earliest possible stage and prevent the onset of long-term chronic illness and disease.

Educational Objectives

- Describe the interrelationships and functioning of the entire airway complex.
- Understand the developmental and functional challenges which lead to airway disorders.
- Appreciate how Functional Airway is the cornerstone of health.
- Be in a position to decide whether or not to incorporate Functional Airway Management into existing protocols.

Biography

A native of South Africa, Mr. Price emigrated to Australia in 1980, and lived and worked in the USA from 2012 to 2019. He qualified as a pharmacist in 1960 and has studied, trained, or qualified in multiple areas of human health for over 60 years. He was one of the driving forces in introducing Airway into dentistry in 1999 and was the first to posit that breathing-disordered sleep was the true issue rather than sleep-disordered breathing. Mr. Price has lectured widely for most of the major dental training institutes and is a much sought-after presenter, lecturer, and trainer in the world of Airway. He is now semi-retired in Sydney and consults for 6 airway-focused practices. He is the creator of the e-course Functional Airway Management and runs the Breathing Well Online Academy.

Disclosure: Mr. Price has no relationships or paid positions to report.

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October 27, 2021

Optimizing Sleep and Breathing Hygiene in Earliest Childhood: LifeSpan and HealthSpan Implications

Kevin Boyd, DDS
Dentistry for Families and Children | Chicago, Illinois, United States

Abstract

This course is designed to raise awareness about highly prevalent pediatric obstructive sleep-disordered breathing (SDB), with or without Early Childhood Malocclusion (ECM), prior to 71 months of age; and to empower participants to join in efforts to ensure that the largest possible number of children with SDB might achieve an optimally functioning airway at the earliest possible stage of development and with the least possible burden to children and their adult caregivers. Whether dental professionals are comfortable with providing orthodontic/dentofacial orthopedic (O/DO) treatment intervention in very young (under 71 months of age) children, it is very important that, at the very minimum, orthodontists, pediatric dentists, and child-focused general dentists understand

the problem many kids are having with their breathing during waking hours and sleep, and what possibly might be done about it at the point of earliest recognition. It is now quite well understood that certain types of deciduous malocclusion traits, such as early class II disto-occlusion (distal-step deciduous 2nd primary molars) and maxillo-mandibular transverse deficiencies (with/without posterior cross-bites), etc., will reliably persist, and seldom, if ever, improve without appropriate and timely intervention soon after their first identification. Maldevelopment of dental arches is frequently associated with SDB behavioral symptoms, such as snoring, mouth-breathing, and bruxism. It becomes imperative that orthodontists, pediatric dentists, and general dentists who see young kids work collaboratively to assure that a validated risk assessment is performed on all children presenting to their clinics for comprehensive oral health care.

Educational Objectives

- Describe the differences in the craniofacial respiratory complex (CFRC) between individuals born and raised in pre-industrialized cultures and those living now.
- Identify at least three signs of sleep-disordered breathing in a child.
- List the two primary medical treatments for pediatric obstructive sleep-disordered breathing and two secondary (adjunctive) intervention strategies.

Biography

Dr. Boyd, a practicing Pediatric Dentist teaching in the Pediatric Dentistry residency program at Chicago's Lurie Children's Hospital, also serves as dental consultant to Lurie's Sleep Medicine service and Lutheran General Hospital. He is a Visiting Scholar at the University of Pennsylvania's Museum of Anthropology, conducting research in anthropology and orthodontics.

Disclosure: Dr. Boyd has reported no conflict-of-interest relationships.

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November 3, 2021

Short Lingual Frenum in Children and Adolescents: Correlation with Orthodontic and Postural Alterations



Giovanni Olivi, MD, DDS, Studio Medico Dentistico, Rome, Italy;

Weng Cheu Yue, BDS (Singapore), FRACDS (Australia), MJDF RCS (England);
Amy Luedemann-Lazar, DDS, Katy, Texas, United States

Abstract
The effects of tongue-tie on the newborn growth and on the orofacial development are well known and range from a minimal maternal discomfort during breastfeeding to severe growth retardation. If therapists fail to diagnose a short lingual frenum, the correlated impairment can lead to a cascade of several malfunctions that starts in children with atypical swallowing and speech impediment, may lead to oral breathing and craniofacial growth impairment, and may also lead to sleep disorders during childhood and adolescence. During life these alterations can be associated with or cause other health problems, including postural modification and hypertension. Early detection and surgical intervention may prevent a vicious cascade from happening. This lecture will include qualitative and quantitative diagnosis of short lingual frenum in children and adolescents and a description of the body postural examination. The proposal and explanation of which laser wavelength for treatment is better and why will be also provided. Videos and high-definition images help attendees better understand and learn the topic.

Educational Objectives

- Understand the central role of the tongue function in craniofacial growth and development.
- Describe the relationship between tongue-tie, lingual hypotonicity, and orthodontic alterations.
- Review the anatomy of the floor of the mouth as it relates to a precise surgery and predictable outcomes.

Biographies
Dr. Olivi is a native of Rome, Italy, where he graduated cum laude in Medicine and Surgery (MD) and in Dentistry (DDS). In 2002 he achieved the postgraduate diploma in Laser Dentistry from the University of Florence. He achieved laser certification from the International Society for Laser Dentistry (ISLD) (2004) and Advanced Proficiency and Master status from the Academy of Laser Dentistry (ALD) (2006-2009). In 2007 Dr. Olivi received ALD's Leon Goldman Award for Clinical Excellence. He is an active member of the Italian Society of Endodontics (SIE), President of the International Academy of Innovative Dentistry (IAID), and Chair of the ALD Italy Study Club. He is the scientific coordinator of the Laser Dentistry Master courses at Catholic University of Sacred Heart of Rome. He has authored more than 70 peer-reviewed articles and 4 books on laser dentistry.

Disclosure: Dr. Olivi lectures for Fotona d.o.o. and receives a modest honorarium for these activities.

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Dr. Luedemann is a native Houstonian who has been involved in providing dental care since 1990. She started as a dental assistant and continued her education until she reached her ultimate goal of

becoming a pediatric dentist, where her two loves – children and dentistry – come together every day. She graduated with honors in her undergraduate studies of Nutrition and Psychology. She obtained her Doctor of Dental Surgery degree in 2005 from the University of Texas Dental Branch – Houston. She then traveled to Seattle, Washington, where she received her Pediatric Specialty Training and a master's degree from the University of Washington in 2007.

After completing her formal training, Dr. Luedemann worked at Seattle Children's Hospital and Regional Medical Center. She served on the craniofacial team there and worked extensively with children who had special healthcare needs. Additionally, she served as an Acting Assistant Clinical Professor at the University of Washington. In this role, she provided lectures and clinical teaching.

Dr. Luedemann is a diplomate of the American Board of Pediatric Dentistry and participates professionally with many organizations promoting oral health in children. She is a founding member of the Academy of Applied Myofunctional Sciences (AAMS) as well as a founding member of the International Academy of Innovative Dentistry (IAID). She speaks nationally on a variety of laser pediatric dentistry topics, and has received an international award, the AAMS Centres of Light Award for Interdisciplinary Leadership in Advancing Medicine Via Myofunctional Sciences, for her work. In addition to being concerned with and involved in the important issues facing the profession of dentistry, Dr. Luedemann has also enjoyed traveling abroad and providing dental care in underserved areas to help those in need. She has traveled to more than 30 countries and provided dentistry in nearly half of them.

In her practice of pediatric dentistry, Dr. Luedemann has become well known for her compassion and expertise in pediatric laser dentistry, frenectomies, myofunctional therapy, MyoBrace, Advanced Light Force (ALF), as well as her comprehensive approach to sleep and airway issues in children. She practices with a holistic approach toward treatment planning and materials for children. She has a passion for integrating technologies and methodologies to create the best possible environment and experience for each family and child in her care.

Disclosure: Dr. Luedemann has reported no conflicts of interest.

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Dr. Yue completed his BDS degree at the National University of Singapore. He was awarded The Pierre Fauchard Academy Foundation Annual Scholarship Award and was elected Fellow of the Royal Australasian College of Dental Surgeons, Fellow of the International College of Dentists, and Fellow of International Congress of Oral Implantologists. He obtained his Membership of the Joint Dental Faculties of the Royal College of Surgeons, England. Dr. Yee also attained his Mastership certification with the World Clinical Laser Institute and has obtained his Certificate of Oral Implantology from Frankfurt University. He has completed the full temporomandibular disorders (TMD) continuum at Occlusion Connections in USA and attended the mini residency on Dental Sleep Medicine with Tufts University School of Dental Medicine in 2017-2018 and 2020-2021.

Dr. Yue started the concept of Linguadontics where he focuses on the tongue as one of the key elements in influencing general health, in collaboration with other medical and allied health providers. He is the inventor of the LinguaSTIK and LinguaSTIK PRO. As a TEDx Singapore speaker, he advocates "Wellness through the Power of the Tongue." He started the first tongue-focus dental clinic in 2018 in Singapore.

He is the Clinical Director of DP Dental (Kovan) and DP Dental (Orchard). With a team of 30, he integrates general and advanced dental technologies such as lasers, CAD-CAM, 3D jaw tracking, CBCT imaging, remote A.I. monitoring, and nonextraction aligners therapy combined with myofunctional training (children and adults), trainers and Oral Sleep Appliance, to enhance diagnostic and therapeutic outcomes for his patients.

Disclosure: Dr. Yue receives no compensation from any company for his presentation.

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November 10, 2021

MYO ASAP

Joy Moeller, BS, RDH
Academy of Orofacial Myofunctional Therapy | Pacific Palisades, California, United States

Abstract
The field of Sleep Medicine or Dentistry has exploded and now includes myofunctional therapy as an adjunctive treatment. Many studies show that airway surgeries such as tonsillectomy and adenoidectomy alone are not enough to reverse the effects of obstructive sleep apnea (OSA). A new meta-analysis of 331 studies, which recently was accepted for publication in *Sleep*, concluded that myofunctional therapy decreases the Apnea Hypopnea Index (AHI) by approximately 50% in adults and 62% in children. Lower oxygen saturations, snoring, and sleepiness outcomes improve in adults through myofunctional therapy. This information is changing the way the medical profession treats OSA. Also, with current research linking treatment protocols to success as an adjunctive treatment for orofacial pain, early interceptive orthodontic treatment, post-orthodontic retention, periodontal therapy, and recognition and treatment of restricted frenums, physicians, dentists, and other health care workers may want to incorporate a systematic program into their practice. This course is an overview of the assessment, etiology, and treatment of OSA, and the effects of not implementing myofunctional therapy when releasing tethered tissues.

Educational Objectives

- Assess and recognize myofunctional disorders.
- Understand why and when myofunctional therapy must be done with laser frenectomies.
- Learn how to find the best therapists to work with.
- Appreciate how myofunctional therapy can build one's practice.

Biography

Joy Moeller is a dental hygienist, author, and associate professor at Indiana University, who has worked as a myofunctional therapist for many years and currently has a private practice in Pacific Palisades, California. She is a founding lecturer with the Academy of Orofacial Myofunctional Therapy (AOMT) and a founding board member of the Academy of Applied Myofunctional Sciences (AAMS). Joy wrote a chapter in *Sleep Medicine Clinics*, a chapter in *Sleep Disorders in Pediatric Dentistry: Clinical Guide on Diagnosis and Management*, published in 2019, a chapter in *Management of Obstructive Sleep Apnea: An Evidence-Based Multidisciplinary Textbook*, published in 2021, a children's book on tongue position, as well as many published studies and other chapters in textbooks. Joy has lectured worldwide and was invited to speak at Grand Rounds at the Mayo Clinic in Rochester, Minnesota, at the Stanford Sleep Residency program, and at the Pankey Institute in 2020. She currently teaches with the Palo Alto School of Sleep Medicine, and taught for 7 years with University of California, Los Angeles (UCLA) Dental Sleep Postgraduate program. She is an ongoing guest speaker at University of Southern California (USC) Dental Hygiene program.

Disclosure: Joy Moeller lectures with the Academy of Orofacial Myofunctional Therapy.

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