CRANIOFACIAL GROWTH X MALOCCLUSION
WHY EARLY INTERVENTIONS?
It is with great pleasure that we are in contact with dentists from around the world interested in understanding and applying the therapeutic approach of FJO in their clinical practice.

We share the desire to deepen our knowledge about the mechanisms involved in the physiology of the stomatognathic system to prevent and treat changes in craniofacial growth and development.

The Wilma Simões European Institute aims to pass on, disseminate and apply all the scientific knowledge accumulated by Dr. Wilma Simões for over 50 years, one of the biggest names in the Functional Jaw Orthopedics area.

This project perpetuates the scientific and entrepreneurial spirit of Dr. Wilma Simões.
Jaw Functional Orthopedics is a specialty that has the necessary therapeutic arsenal to promote health, to prevent damage and to re-establish oral physiology.

As a professional that has dedicated my life to the study and practice of JFO, I feel myself extremely honored to be the president of the IV Scientific Meeting of Wilma Simoes European Institute (WSEI), this time linked to the XII International Functional Association (IFUNA) Meeting. The theme chosen for these meetings reflects the actual strategy of WHO/Europe: “Investing in children”.

Our aim is to show that this strategy must be spread all over the world, reinforcing the necessity of connecting different fields of health sciences to allow each child the possibility of have a correct growth and development, expressing all its potentiality.

I and all the organization commission prepared the meeting in order to go deep into the discussions about the interface between craniofacial growth, development and malocclusions and allow health professionals to understand better the necessity and obligation of early intervention.
Thinking on the relevance of this theme and wanting to disseminate it, we create a public electronic data-base that will be on the meeting site. It can be a source of information and research for all professionals interested on the theme.

This e-booklet will be divided in sessions like the meeting.

After each session we will have the open access articles or the abstracts from not open articles related to that session, including the publications of many speakers. We will also have a session dedicated to the oral presentations selected with the articles provided and a session for the posters selected with the articles also provided by the presenters.

After posters we will have abstracts and articles from pre-meeting.

And the last session will be an specific session with articles not published in English. We wish this e-booklet become a great reference on the comprehension of early interventions on malocclusion.
IFUNA is a worldwide community of healthcare practitioners who believe that in order to restore craniofacial functional balance, we need to work together as a team.

IFUNA is an international association that connects all of the different specialties that comprise an interdisciplinary craniofacial team.

IFUNA is the leader in establishing new standards in the diagnostics, documentation, and communication of CRANIOFACIAL FUNCTIONAL MEDICINE.

Dentists, orthodontists, ENT specialists, orofacial myologists, and speech therapists have discovered the need for collaboration. Over time, we have all realized that the interconnectedness of problems in the craniofacial field goes even further; local problems are just local manifestations of a global health imbalance.

IFUNA’s mission is to help specialists connect with collaborator colleagues and find solutions for their shared challenges, including finding best practices for communication, patient motivation, legal issues, and educational challenges.
CRANIOFACIAL GROWTH X MALOCCLUSION
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Prevalence and risk of malocclusion in deciduous dentition

Malocclusion has a high prevalence and a significant impact in the quality of life of the affected individuals and the costs associated with its treatment, and can therefore be considered as a public health problem.

Malocclusion can also have esthetic consequences at the teeth and face level, and functional consequences in mastication, swallowing, phonetic posture and temporomandibular joint.

For all these reasons, in 1954, WHO ranked malocclusion as the third most important oral disease, surpassed only by tooth decay and periodontal disease. This pathology is the result of the complex interaction between genetic, behavioral, and environmental factors, present during the formation and development of the orofacial complex in childhood and adolescence.

Harmful habits and other situations originated in early childhood, such as prolonged non-nutritive sucking habits or other deleterious habits, premature tooth loss, oral and respiratory infections, among others, are now considered risk factors for the development of malocclusion.

DR. CARINA P. L. ESPERANÇINHA
Portugal

Dentist graduate and Functional Jaw Orthopedic Specialist.
Coordinator of Functional Jaw Orthopedic courses at Wilma Simões European Institute – Lisbon.
The epidemiological study of malocclusion in deciduous dentition and its determining factors is fundamental for the correct clarification of this problem and allows the planning of effective preventive measures and the implementation of early treatment, which aim to increase the percentage of the population with normal occlusion and reduce the proportion of moderate or severe malocclusions to levels that are socially acceptable and economically sustainable.

A research study, which was carried out in the Lisbon district on the prevalence and the factors associated with malocclusion in deciduous dentition and the application of a specific malocclusion risk index to be applied to the deciduous dentition, will be presented.
What is functionalism?

International Functional Association (IFUNA) is an international non-profit organization that disseminates the concept of craniofacial functional medicine. This concept is based on the revelation that all chronic diseases have multifactorial origins, which means that the only ethical and causal medical approach is team treatment.

We believe that this approach is in the patient’s best interest: instead of unidisciplinary symptomatic treatment delivered by a specialist of a single medical field, the appropriate treatment is delivered through interdisciplinary teamwork.

Dentists, orthodontists, ENT specialists, prosthodontists, neurologists, and speech therapists have discovered the need for collaboration. Over time, we have all realized that the interconnectedness of problems in the craniofacial field goes even further: local problems are just local manifestations of a global health imbalance.

IFUNA’s mission is to help specialists connect with collaborative colleagues and find solutions for their shared challenges, including finding best practices for communication, patient motivation, legal issues, and educational challenges.
CRANIOFACIAL GROWTH X MALOCCLUSION
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The importance of new skills in IFUNA. Functional orthodontics meets functional medicine

Concerning the etiology of malocclusion, it is still the most commonly accepted theory in the orthodontic profession that malformations occur because of genetic reasons. This theory also projects potential health risks in conjunction with the presence of malocclusion (tooth decay, gum and bone loss, TMJ problems, speech problems). So, ultimately we treat genetic problems in order to prevent symptoms that would evolve as a consequence of the malocclusion.

The big question is if these fundamentals of the profession are still valid? The problem is that over the history of the orthodontic profession we haven’t been able to prove either statement. Malocclusion is not fundamentally genetic. The etiology is multifactorial within genetic information is as equal factor as other environmental factors. Even in genetics this is getting widely accepted that environment can switch on and off genes.
Similarly in the development of tooth decay, gum and bone loss and TMD, occlusion is just a factor beside others. The etiology of these problems is similarly multifactorial.

In this situation we have to redefine the basic principles of our profession. We have to accept that multifactorial origin dictates a multilateral treatment. This means that we have to address all the potential factors, including body posture, tongue posture and function, breathing and sleeping along with the structural changes. Ultimately orthodontics has to participate in a team treatment.

We also have to accept the fact that in the craniofacial development, function has a significant role and can even modify genetic expression.

Accepting these tenets our specialty is moving towards a functional teamwork. However, in this new area there are new challenges.

We have to redefine the fundamentals of the teamwork and we have to develop new treatment protocols and documentation processes. IFUNA will play a significant role in the development of these new protocols.
Levels of prevention of occlusopathies

Establishing the Levels of Prevention we achieve when it is appropriate to know how to diagnose and treat malocclusions including pain and age groups beyond the risk factors in the etiology of headaches.
“Dr Wilma Alexandre Simões has been dedicating her life to study, understand and show people how neuro-occlusal rehabilitation can re-establish the correct physiology of mouth. She had great masters like Dr Yojiro Kawamura, Dr Pedro Planas, Dr Alexander Petrovic and she became a great contemporaneous master. Her speech opens officially the scientific presentations of this meeting.”

Patricia Valerio
Global distribution of malocclusion traits: A systematic review

Prevalence of and factors affecting malocclusion in primary dentition among children in Xi’an, China

The Aponeurotic Tension Model of Craniofacial Growth in Man

The old and new face of craniofacial research: How animal models inform human craniofacial genetic and clinical data

Dentigerous cyst associated with an upper permanent central incisor: case report and literature review.

The Increased Prevalence of Malocclusion in Modern Humans: An Integrative Review
Session 1: Behavioral aspects of functional therapies
SESSION 1
Behavior aspects of functional therapies

Dr. Maria Vasilyeva (Russia) - Interrelationship between posture and occlusion
Dr. Fabiola Limardo (Argentina) - Spiritual and scientific aspects about craniofacial growth and malocclusions
Dr. Keri Toham (Lithuania) - Alternative therapeutics for body healing
Interrelationship between posture and occlusion

The aim is to improve the diagnosis and treatment of patients with TMJ dysfunction by examining the results of a study on the relevance of occlusal posture in the presence of malocclusion.

In the reality around us of the 21st century, we are seeing an increasing number of dental and jaw anomalies. According to modern literature, about 87% of children from 3 to 18 years have malocclusion. The distal positioning of the Mandible is noted in 83% of the population.

According to the literature, up to 76% of patients who go to the dentist have complaints related to the temporomandibular joint (TMJ). TMJ dysfunction is a condition which affects every year more and more often, and diagnosis and treatment of such patients is an urgent task. The lack of a unified concept in the etiology and pathogenesis of the disease has led to different approaches in the diagnosis and treatment of this pathology especially in children.

In dental practice, it is customary to focus on the TMJ and occlusion of the teeth, without considering the variety of extra-articular factors.
Understanding of the relationships of functional processes in the body prompted us to pay special attention to the foot, as an organ of proprioception. Virard in 1860 put forward the hypothesis that multinodal sensorimotor system, which provides stability of the organism. In addition to the function of vision and inner ear, it includes TMJ and skin sensitivity of the feet.

Summarizing:

1) TMJ dysfunction and malocclusion in 100% of cases is combined with impaired longitudinal and transverse arch of the foot.
2) Hollow and pseudo flat foot deformities are a marker of chronic stress.
3) In the process of planning a comprehensive dental rehabilitation of the children, it is necessary to assess the condition of the feet.
4) Patients with a deviation of the position of the tongue, infantile swallowing and mouth breathing should be sent to the podiatrist to exclude the pathology of the feet.
5) Flat feet, valgus feet, and other disorders of the musculoskeletal system, which the patient turns to the doctor-Podiatry, require mandatory consultation of a dentist to avoid TMJ disorders.
Spiritual and scientific aspects about craniofacial growth and malocclusions

The joint mission of the childhood pedagogy, medicine and dentistry, is to help the child to shape his body and to manifest their individuality through their constitutional possibilities.

Anthroposophic Dentistry is an extension of conventional dentistry which aims to heal holistically through a full understanding of the human being, including its physical, social and spiritual dimensions.

How can one see the mouth, its development and malocclusions in the early stages of the child, from an integral vision of the human being? The anthroposophic scientific approach opens the possibility of understanding the relation between bodily form, life process and mental capacity. We begin by the idea of triple organization of the human being, constituted of body, soul and individuality, and we find in them the same ternary organization.

The body has three systems: sensorimotor, metabolic, and a system of balance called rhythmic system. The human soul can be divided into three areas: thought, feeling and will. This is reflected in the face, and also in teeth and arcades. We see in the shape of the body, an expression of the individuality, and in the mouth also a reflex of the human being in its whole. The oral cavity is an image of the psychosocial space of the child. It is formed rhythmically by the tongue’s pressure from inside and the lips by outside.
The lips form a boundary that separates the outside world of the interior one. He can express or interiorize something. The tongue has an important role in the locomotor development of the child. It is also an organ related to sexuality and feelings.

By the teeth's position and the shape of the jaw, we can see what influences which acted and are acting on him, in how we can balance them to ameliorate the bodily functions.

We could observe this forces in the development of the occlusion, and the planes of the space.

Sagittal plane: Corresponds to an inversion between the right and the left. This phenomenon of crossing generates the consciousness of crossing. In the psychic level, this alternation will give us the diagnostic elements about the understanding capacity of the patient's world. (Cross bite, crowded teeth, diastema, etc).

Horizontal plane: This plane makes a separation between an ascending and a descending current. Psychically, these manifestations are noticed like a separation between up and down, like feelings of elevation or of depth, linked to the predominance of the neurovegetative forces and those of the metabolism. (Analysis of Normal bite, Open bite, Overbite).

Transverse Plane: This plane separates front and back, being linked to the tendencies of growth concerning mainly the jaw. Psychically, we recognize the tendencies to spontaneity and man's inhibition. (Psychical analysis of Class I, II, III).

The child is not only the result of the heritage's biology of the environmental factors, but it carries inside a latent genius and our task is to help him to unfold that genius. During the first seven years, the individuality of the child is immersed in a constructive and formative activity. Which epigenetic factors could we consider to stimulate a healthy and balanced development of the child from an integral perspective?

Breathing/degestion/Speech/art/osteopathy/Posture/Movements/Imitation/Influence of parents/adults/Movements/Daily Rhytm/Arts/Nutrition/

Anthroposophic Therapies: Curative Euryrhythm, Rudolf Method, Botheus Gymnastics, Rhythmic Massage, Curative watercolors, medicines therapies.

Functional Orthopedics: The canal structure reflects the psychoaffective life of the patient, and all the functional disturbances. If we don't intervene, the structure continues nourishing the type of the psychoaffective situation. It's a true vicious circle.
It's needed to work in the affective plane and in the environment, as well as in the level of the mouth's structure. A vision in which the physical, psychological and spiritual plane are reunified.

When orthodontists use orthopaedic appliances in patients, they work directly on articulations, jaw muscles, and occlusion. This will multiply stimuli in the periphery, and create new neurological pathways. It's a new awakening of the organism. Working in the early stages with oral functions and posture will allow the child a balanced facial and dentomaxillary's development, but also a better quality of life. We will emphasize the importance of a deep integral diagnosis that includes the physical, mental and spiritual aspects and that it lets us project a therapy that embraces all these spheres that helps patients to achieve a better “posture” in front of life and, somehow supports them in their own realization.

Thus, working consciously and in an interdisciplinary way, the harmony of teeth and openings will be then a reflex that the deep spheres of the patient have returned from a unilateral development to a necessary balance to reach a healthy bio-psychic life.

The practice of this global therapy allows a new professional opening.
CRANIOFACIAL GROWTH X MALOCCLUSION
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Alternative therapeutics for body healing

I am called a "holistic therapist" and I am engaged, respectively, in holistic medicine.

The unintelligible term "holistic" comes from the English word whole - healthy, native.

So, my lesson can be translated into:

- healing: awareness of the whole picture of the life of a sick person, which led him to this disease;

- quackery: knowledge of the ways in which a person can not only get away from the disease, but, freed from the reasons that gave rise to the disease and come to health.
The Kinesio Taping Method for Myofascial Pain Control

A Randomized, Crossover Trial of a Novel Sound-to-Sleep Mattress Technology in Children with Autism and Sleep Difficulties

Mouth breathing from a physical, Mental and spiritual view

Relaxation – Induced by Vibroacoustic Stimulation via a Body Monochord and via Relaxation Music – Is Associated with a Decrease in Tonic Electrodermal Activity and an Increase of the Salivary Cortisol Level in Patients with Psychosomatic Disorders

A parallel randomized controlled trial examining the effects of rhythmic sensory stimulation on fibromyalgia symptoms.
Session 2: Session 2: Functional Medicine
CRANIOFACIAL GROWTH & MALOCCLUSION
WHY EARLY INTERVENTIONS?

SESSION 2
Functional Medicine

Dr. Eyal Botzer (Israel) - Breastfeeding is not just nutrition.

Dr. Marie Joseph Dhanes (France) - The development of the cranial base: The impact of asymmetries on facial growth and their management.

Dr. Shinichi Aria (Japan) - Method of prevent orthodontics during primary dentition stage.

Dr. Willem Araglio (Brazil) - Treatment with the method LBR-CFA in mixed dentition.

Dr. Cristina Pires (Portugal) / Dr. Mercedes Galvez (Spain) / Dr. Delfino Alain (Italy) - Does FFO only serve to stimulate the growth of the jaws?

Dr. Réal Philippe (France) - The fascia network: a fundamental aspect of the complexity of the stomatognatic system and how FFO is one of the most suitable therapeutic tool to deal with it.

Dr. Charles Lelouch (France) - New protocol for functional results. A two-year clinical experience with clear aligner.

Dr. Bamy Yesilbek (Turkey) - Solving Skeletal Openbite by Functional Jaw Orthopedics.

Dr. Sandra Coulson (USA) - Why bother with muscles?
Breastfeeding is not just nutrition

Tongue function is molding the palate. A proper tongue function In-Utero will result in a wide flat palate that enables proper breastfeeding. That will lead to proper craniofacial development that will result in a healthy, and functional individual.

When there is a dysfunctional oral system due to a sub functional tongue or other factors, a vicious cascade may happen. Starting with impaired breastfeeding followed by multiple compensations that can affect almost every aspect of function and health.

In this lecture the vicious cascade will be discussed with an emphasis on one of the most common causes for a dysfunctional oral system, the Tongue-Tie, including classification, diagnosis and treatment of tongue tie.
The Development of the Cranial Base: The impact of Asymmetries on Facial growth and their management.

Orthodontists interested in early orthopedic treatments need to know better which orthopedic treatment could deliver the best result in terms of growth guidance. We advocate that information can be gained from an insightful understanding of the remodeling of the cranial base. Furthermore, we know that the process of flexion is crucial for the reshaping of the cranial base but it ends at the moment of the eruption of the 1st permanent molar. So, the question could be: Why early orthopedic treatments must be done before the age of 6?

As the number of facial asymmetries is increasing, prevention has become a byword in the world of medicine and in the field of dento-facial orthopedics. We must follow strict rules of treatment to change asymmetrical facial growth, by [i] acting on the remodeling of the temporal bones and [ii] changing the asymmetry inside the upper arch.

The question could be: How to change the face in milk dentition when asymmetries are invading?
We can see how in mouths with intense masticatory function we obtain a good development, and a correct position of all the teeth.

Therefore, the methods that Prof. Planas creates and that we can apply in our patients are based on obtaining the functional stimulus necessary to correct the patients. These methods are the selective grinding, direct tracks with composites and Planas appliances (appliances with tracks, Equiplan, ...).

The ultimate goal of applying these treatments will always be to obtain a perfectly balanced occlusion.
CRANIOFACIAL GROWTH X MALOCCLUSION
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Method of Prevent orthodontics during Primary Dentition Stage

I will talk about Method of prevent orthodontics in the period of early childhood. I challenge to prevent for malocclusion during primary dentition stage through health education about diet, posture of sleeping and breathing.

1. The point of Education

The process of the development of the primary dentition are various. Parents need to give the suitable foods for each of babies/children. I teach parents what kind of food they should give to babies/children, how hard the food should be, how they should give.

2. posture of sleeping

The posture of face down or the same side down, upon the bed inhibit from normal cranial facial growth and development. So, I recommend a supine position as much time as possible.

3. Breathing

The abdominal breathing and the nose breathing is important. then I teach children/parents how to breathe.

1) The early orthodontic intervention improved babies/children with anterior crossbite, its average rate of improvement was 33.7%.

2) The early orthodontic intervention increased the space between incisor teeth and its average rate of improvement was about 30%.
CRANIOFACIAL GROWTH X MALOCCLUSION
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Treatment with the method
HBTV-RFA in mixed dentition

It will be addressing at the conference, how the HBTV-RFA method works on children with mixed dentition in aspects such as body posture, craniofacial growth and development, as well as in dentition, breathing, cognition and behavior.

They will be shown in videos, X-ray images and photographs (intra-oral, face and whole body) demonstrating that the HBTV-RFA method is effective and the treatments are stable for many years, with documentation tracking for more than 20 years after treatments.

Many of the clinical cases presented are in the book Function Regulator Aragao, published in Brazil in 2007 by Editora Santos and in Spain in 2008 by Editora Hispano.
CRANIOFACIAL GROWTH X MALOCCLUSION
WHY EARLY INTERVENTIONS?

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Dentist graduate and Specialist in Functional Jaw Orthopedics
Researcher at CEPECRAF - FIO -Teaching and Research Center of Craniofacial Growth and Multidisciplinary Functional Jaw Orthopedics

Dr. Delfino Allais
Italy
Medical Doctor, private practitioner dedicated exclusively to Orthodontics and Functional Jaw Orthopedics
Clinical Professor at the Orthodontic Department Aarhus University DK
Specialized in Functional Jaw Orthopedics
Member of Orthodontic Associations: S.ID.O, A.A.O.

Dr. Mercedes Gálvez
Spain
Graduate in Dentistry and Master in Morphological Science at the University of Granada, Spain.
Private practitioner in Granada, Spain.
Coordinator for CEPECRAF in Spain.
Does JFO only serve to stimulate the growth of the jaws?

At birth the first thing the child does is breathe, with this function it opens up to life and is what keeps it in; we can think that this is not any function, in fact it is essential for the correct morpho-functional development of the Stomatognathic System and for health in general.

What he will do next is breastfeeding, a prelude to the chewing that will appear with the teeth. These are not simple functions, they involve a complex organization coordinated by the Nervous System.

Structure and function are two sides of the same coin. The structure, solid, tangible, measurable. In the newborn has an important genetic component; the function, subtle, conditioned by the structure and which in turn infers, difficult to quantify but easily influenced. For doctors who follow Javes Functional Orthopedic (JFO) principles, manifestation is one of the triggering factors for facial bone development. Our modern, "civilized" soft diet regime and the lack of masticatory function cause a weakness of the whole Stomatognathic System.

Combination...

Clinically we can find several occlusopathies that can affect a correct masticatory function until the unilateral crookbite with inverted masticatory cycles and irreversible self-correction. An appropriate jaw size is an important parameter required to facilitate the development and eruption of teeth in order. Similarly, arch length deficiency is known to enhance crowding and the probability of tooth impactions and ectopic eruption.

Do we really need to complete our treatment with a fixed orthodontic appliance to finalized the position of the teeth?

During the presentation, clinical cases with different signs of malocclusion will be shared. Through the JFO based on the RNO we can work from the early stages of the child’s life favoring a physiological expression of the functions related to the Stomatognathic System in order to promote the development in health of the child as a whole.
CRANIOFACIAL GROWTH X MALOCCLUSION
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The fascia network: a fundamental aspect of the complexity of the stomatognatic system and how FJO is one of the more suitable therapeutical tool to deal with it.

The masticatory system is a complex and chaotic system that can profoundly disrupt many systems in our body if it is not regulated.

As all the organs in the body, it is under the influence of the another complex and chaotic system: the fascia network, one of the most important structure of our body, connecting all organs together; from the inside of each cell to the skin surface. Fascias are attracting more and more interest from the scientific community because of there suspected importance in mechanotransduction: a mechanism so fundamental for FJO.

This huge still insufficiently known network is thus one of the aspect of the complexity of the stomatognatic system that must force all therapist to be aware of the crucial role of promoting self regulation by equilibrating functions and their main aspects: proprioception and stimulation.

DR. ROL PHILIPPE
France

Functional orthodontist, exclusive practice of functional jaw orthopedics
Training in the Occlusal Neuro Rehabilitation, functional jaw orthopedics and orthodontics.

SEPTEMBER 27, 2019
LISBON, PORTUGAL
Continuation...

So, all our therapies should have the primary goal of regulating all the functions of the masticatory system in order to give it the ability to become a regulator rather than a disrupter.

Overall health is at its best and can only be achieved if we respect the fabulous abilities of self organization of life while avoiding theiatrogenic tools as much as possible.

Physiology must always be our ally instead of being our enemy.

FJO is one of the most powerful therapeutic tools to stimulate the living towards more multidisciplinary regulation.

CRANIOFACIAL GROWTH
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DR. ROL PHILIPPE
New protocol for functional results. A two-year clinical experience with clear aligner

The world is changing, the education of our young patients, the demands of teachers, the difficulty of parents to add another constraint to their already busy lives, makes it more and more difficult to obtain the cooperation that we could have in the previous years.

Nevertheless, the physiological principles that govern the orthodontics in general and functional in particular remain the same. The constraints of movements of the teeth and the development of the arches do not change.

Are there new protocols allowing us to facilitate the achievement of therapeutic goals, is there the possibility of substituting our orthopedic and functional devices by others easier and less restrictive and get the same results as our old masters?

A long experience in the use of assistive devices and the implementation of these new protocols through many clinical cases gives me the opportunity to contribute to this reflection. That is the question I propose to answer in this communication.

SEPTEMBER 27, 2019
LISBON, PORTUGAL
Solving Skeletal Openbite by Functional Jaw Orthopedics

Skeletal Openbite is one of the most challenging problems faced in malocclusion corrections. Treatment of severe cases often requires extraction or use of miniimplants.

But there must be a more physiologic way to solve our big problem.

Since all bones assume their shape through the stimulation of muscles and other soft tissues around them if we could provide appropriate stimulation we can improve our problem.

Since Functional Jaw Orthopedics deals with providing appropriate stimulus to the Central Nervous System and getting back proper stimulations to surrounding tissues we can use this for our benefit to close the openbite.

Using Physiologic stimulations to solve skeletal Open Bites with stability will make you fall in love with Functional Jaw Orthopedics...
CRANIOFACIAL GROWTH & MALOCCLUSION
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Why Bother with Muscles?

The enormous impact that muscles have on cranial development and dentition from infancy through old age has been largely overlooked by the dental community until recently.

While some early practitioners like Dr. Harvey Stallard, from the Angle School of Orthodontics in 1927, found that at birth 2% of children had facial malformations, at two years it was 5% and at age 17 there were 50% who had significant malformations of their orofacial muscles and teeth. His information was not deemed significant.

Narrow Arch width, Nasal airway blockage, Lingual/labial frenulum restrictions, severity of dental arch formation, neurological and/or muscle involvement, allergies or other medical conditions, and medications which create breathing issues were simply not a primary part of dental assessments.

Orofacial muscular exercises are taught to patients of all ages, beginning in infancy. Neuromuscular massage helps to facilitate proper use of muscles of the tongue, lips, jaw, face and pharynx. A series of exercises, designed for each patient individually, trains these muscles.

I will demonstrate the effectiveness of orofacial muscle exercise and activities through photographs, illustrations and testimonials.
Ankyloglossia in the infant and young child: Clinical suggestions for diagnosis and management

Biomechanics of milk extraction during breast-feeding

Breastfeeding, Bottle Feeding Practices and Malocclusion in the Primary Dentition: A Systematic Review of Cohort Studies

Lingual frenotomy for breastfeeding difficulties: a prospective follow-up study

Modeling of the Craniofacial Architecture during Ontogenesis and Phylogensis

Analysis of various craniofacial architectural types using the ontogenic approach of humanization

Resting position of the head and malocclusion in a group of patients with cerebral palsy

Treatment of the Mouth Breather with Changes on the Occlusion and Body Posture Problems through the Human Body Total Care Method - Aragão Function Regulator (HBTC-RFA): A Case Report
Does labial movement of lower incisors influence the level of the gingival margin? A case-control study of adult orthodontic patients

Long-term treatment effects of the FR-2 appliance: a prospective evaluation 7 years post-treatment

Effect of removable functional appliances on mandibular length in patients with class II with retrognathism: systematic review and meta-analysis

Early treatment of Class III malocclusion: 10-year clinical follow-up

Relationship between foot posture and dental malocclusions in children aged 6 to 9 years

Three-dimensional ultrasound evaluation of tongue posture and its impact on articulation disorders in preschool children with anterior open bite

The relationship between the stomatognathic system and body posture

The effect of Functional Mandibular Shift on the Muscle Spindle Systems in Head, Neck Muscles and the related neurotransmitter histamine
Impact of Functional Appliances on Muscle Activity: A Surface Electromyography Study in Children

Orthodontic appliance preferences of children and adolescents

Correction of Class II Malocclusions in Growing Patients by Using the Invisalign® Technique: Rational Bases and Treatment Staging

Effectiveness of the open bite treatment in growing children and adolescents. A systematic review

Systematic review for orthodontic and orthopedic treatments for anterior open bite in the mixed dentition

Influence of Myofunctional Therapy on Upper Intercanine Distance

Orofacial Myology Can Provide Help for Trichotillomania
Session 3: Functional Jaw Orthopedics Basics
SESSION 3
Functional Jaw Orthopedics Basics

Dr. Carlos Planas (Spain) - Why do we do neuromuscular rehabilitation?

Prof. N. Hubsik (Netherlands) - Understanding myofunctional therapy.

Dr. Rainer-Reginald Mehlke (Germany) & Dr. Maria Rita Sancho Rios (Brazil) - Dealing with craniofacial deformities.

Dr. Mykola Dragomirovsky (Ukraine) - Dental body synergy. Concept of diagnostics and treatment of craniofacial disorders and malocclusion.

Dr. Patricia Valério (Brazil) - Revisiting the Wolff’s law. Why posture changing leads to malocclusion correction?

Dr. Andrea Deregibus (Italy) - The bases for BRACCO appliances functioning.

Dr. Barbara Blalier (Germany) - Mechanism of the non-anchor BLA appliance.

Dr. Tatsuki Ito (Japan) - The effectiveness of Blalier therapy.

Dr. Francisco Mascaro (Brazil) - The scientific and anatomical basis of Planas growth and development laws.

SEPTEMBER 28, 2019
LISBON, PORTUGAL
CRANIOFACIAL GROWTH X MALOCCLUSION
WHY EARLY INTERVENTIONS?

Why do we do Neuro-Occlusal Rehabilitation?

Professor Planas gives us the definition of the NOR, pointing out that his goal in the treatments is to correct the position of the teeth to obtain a balanced occlusion.

This balanced occlusion is the health criterion of the mouth of our patients, by having a better periodontal prognosis, a better joint function, greater efficacy and masticatory comfort, and overall a better health for the patient (posture, position, efficacy).

Defining this balanced occlusion as one in which dental contacts are optimized in the functional movements of chewing on the right and on the left side.

At the same time, chewing offers the physiological stimuli necessary for the correct development of the entire system, this implies the development of bone bases that allow the correct positioning of all the teeth.
Understanding Myofunctional Therapy

Myofunctional therapy gives the best result if we can start as young as possible, between 4 and 12 years of age. It is very important to correct the incorrect function first, before we are going to start any orthodontic treatment.

In this presentation most of the incorrect myo-functional habits will be shown. We are also going to look, how to recognize these habits and how to find the relationship between the incorrect habit (function) and the malocclusion (form), the posture and the facial development in the early mixed dentition.

I use video images to show the moving, dynamic nature of the structures we are dealing with. We look at soft tissue patterns of the face in detail and see what muscle patterns are related to particular malocclusions and TMJ disorders.
We will study in detail how to correct the soft tissues in the growing child using myofunctional appliances. We will look at the temporo-mandibular joint (TMJ) in detail, and I will show how to diagnose TMJ dysfunction immediately, including bruxism and snoring/mouth breathers.

I demonstrate that it is possible to reliably and consistently change muscle and breathing patterns in growing children.
CRANIOFACIAL GROWTH X MALOCCLUSION
WHY EARLY INTERVENTIONS?

Dr. Maria Rita Sancho Rios
Brazil
Specialist in Orthodontics,
Specialist in Functional Jaw Orthopedics,
Master degree in Morphology and health sciences,
Orthodontics Specialization course coordinator.

Dr. Rainer-Reginald Miethke
Germany
Has been a Professor and the Department Head at the Department of Orthodontics in the Freie Universität in Berlin.
He was the Chairman at the Department of Dentistry, Hamad Medical Corporation in Doha, Qatar.
Senior partner, MUNDWERK Die Kieferorthopädie, Berlin.

DR. RAINER-R. MIETHKE
Germany
DR. MARIA RITA RIOS
Brazil
Dealing with Craniofacial Deformities

Hemifacial Microsomia is part of a series of facial deformities from the first and second branchial arches (SAB), and it represents the second most frequent craniofacial malformation. The condition affects the eyes, ears, mandible, nerve and soft tissue of facial musculature.

The facial alterations distort the normal characters, creating facial deviations with varying severity, being the mandibular, temporo-mandibular and/or ears, the ones with the highest frequency.

Alongside labial and palate fissures, Tessier’s cranial fissure, neurofibromatosis, congenital teratoma, cranio-vertebral, and some vascular disorders; hemifacial microsomia appears as one of the etiological factors to facial asymmetry.

The literature presents several treatments towards controlling Hemifacial Microsomia’s phenotypical expression. From the more conservative, to those more invasive, all must account for the quantity and remaining quality of the bone tissue present in the architecture of the affected TMJ.

According to William Bell, the treatment for patients with growing microsomia has the following objectives:

- Augmentation of the mandible on the affected side.
- The creation of articular tissue between mandible and the temporal bone, similar to the missing one.
- To correct secondary alterations to the maxilla.
- Establishing a functional occlusion and satisfactory facial aesthetics.

The Jaw Functional Orthopedics appliances create stimuli in the sensorial neural network inside the mouth, who, in its term, responds by remodeling the bone muscular, and articular structures. In such, the facial aesthetics and functions exerted by the mouth are re-established, retrieving balance to the buccofacial system.

By means of using neural stimuli, Jaw Functional Orthopedics differs fundamentally and conceptually from Facial Orthodontics, which uses mechanical force over the teeth and bone through fixed appliances, like, for instance, Hyrax.
Continuation...

The Jaw Functional Orthopedics appliances produce an adequate stimulation of the neurons that are sent to the mouth region in the sensorial cortex, which processes the stimuli, and transmits back a remodeling response to the stomatognathic system (SE).

The changes that occur in the SE are also incorporated by the sensorial/motor cortices and are codified as new long term memories, those which are responsible for the maintenance of the new stomatognathic system balance, as was postulated by professor Wilma Alexandre Simões since 1974.
CRANIOFACIAL GROWTH X MALOCCLUSION
WHY EARLY INTERVENTIONS?

Dental Body Synergy,
Concept of Diagnostics and Treatment of Craniomandibular Disorders and Malocclusion

The secret of a beautiful face lies in the harmonious ratio of its structures - the skeleton, teeth and soft tissues. The human body is constantly adapting in a way to achieve and maintain stability. Achievement of the body’s functional harmony along with optimal teeth, joint, periodontal and muscle health in combination with excellent esthetic results are the meaning behind dentistry.

The aim of the specialist who is treating craniomandibular disorders has to be early diagnosis and treatment of disorders in the human’s dental system. This is why we have to decline traditional diagnostics and treatment methods and view the issue of human health from the perspective of the Dental Body Synergy concept.
Within the DBS concept, we show fundamental connections between the person's occlusion and posture; and the necessity of an interdisciplinary approach towards the treatment of every patient. The role of the mandibular system, as the adapter of centripetal and centrifugal forces in craniofacial disorders is fundamental. Once we will achieve the correct positioning of the vectors of these forces in the cranium, we will have influence on the body's general health.

DBS is based on the use of a combination of seven therapeutic phases: orthopaedic, functional orthodontics (orthé-craniodontia), neuromuscular stable position of the TMJ prosthetic restoration of teeth arches, myogymnastics etc.

All of this has allowed us to shorten the period of treatment in a significant way and to achieve full normalization of all clinical and functional indicators of the dentomaxillary system and postural balance at the end of orthodontic treatment.
CRANIOFACIAL GROWTH X MALOCCLUSION
WHY EARLY INTERVENTIONS?

DR. PATRÍCIA VALÉRIO
Brazil

Functional Jaw Orthopedic Specialist
Senior researcher postdoc and Orthodontic course professor at the Universidade Federal de Minas Gerais – Brazil.
Researcher of CEPERCAF
Functional Orthopedics course coordinator Jaws of Biokus – Turkey.

Revisiting the Wolff’s law. Why posture changing leads to malocclusion corrections?

Functional Jaw Orthopedics is a scientifically supported speciality.

In 1948, Julius Wolff stated that form follows function. What does it mean? If you stimulate correctly the function execution, you will have a good form established. Human beings knows it instinctively. If we pay attention on the long neck of some Thaiand women, the concave skull of some Africans or even the short feet of some Chinese women, we can understand very easily this instinct and the meaning of Wolff’s law. It happens because bone does not have memory of shape on its DNA.

Bone shape is given by function. And function acts by a mechanism called mechanotransduction. So understanding how the stimulus generated by ligaments, muscles, tendons and fascia is able to remodel bone, allow us to understand why FJO needs to generate a changing on posture to reshape the system. We will be able to understand why changing the posture of tongue and mandible we reshape the mouth.
The bases for BRACCO appliances functioning

It is known as the Functional Appliances are Orthodontic appliance which influence the facial skeleton of the growing child in the condylar and sutural areas.

The uniqueness of functional appliances is their mode of force application/ transmission. They do not act on the teeth like conventional appliances using mechanical elements such as springs, elastics etc. They transmit, eliminate or guide natural forces.

From an historical point of view, in the last eighty years many different types of Functional Appliances were designed and big discussion occurred without a definitive answer at the question if and how this category of appliances work.

During the Seventy of last Century, A. Cerviño from Spain and P. Bracco from Italy proposed new kinds of Functional Appliances with steel bites between the arches. The first introduced a flat bite between the arches, the second transformed the functional therapy with a vision more gnathological.
These appliances are totally free to move in the mouth, and they remain in their position between the arches when the patient keeps his mouth closed.

This new category of appliance can be considered "function inducing" appliances. For this reason, Bracco proposed for these kinds of appliances the name of Function Generator Bite.

The peculiarities of this family of appliances are:
1) no construction bite is required,
2) are gnathologically correct, and
3) the vertical dimension is considered the primary aim.

For this third reason inside this family there are two distinguished branches, the first for skeletal open bite patients (FGB/Open) and the second for skeletal deep bite patients (FGB/Deep), both customizing depending to the dental problems.

According to Bracco, due to the steel bites, with this family of appliances it is possible to obtain a complete relaxation of the mandible’s muscles, all the motor strategy are trained in new regular schemes, all the mouth’s functions (chew, swallow, etc) become normal and the teeth are guided to their correct position by the function.
CRANIOFACIAL GROWTH X MALOCCLUSION
WHY EARLY INTERVENTIONS?

DR. BARBARA BIMLER
Germany

University degree doctorate in philosophy, communication science at the Universität Münster. She worked with Hans Peter Bimler as scientific and course assistant. Since 2003 she is the Director of the International Stomatopedic Institute, and General Manager of the Bimler Laboratories, Wiesbaden.

Mechanism of the non-anchorage Bimler appliance

1. What is the anatomical structure do the B mainly work? The Bimler appliance sits in the mouth on the teeth, so it works on the periodontium. Teeth move inside the alveolar process. There might be an additional effect on the basal bone. However, since almost a hundred years the scientists argue about the respective amount and duration of this effect.

2. Which is mechanism of action on these structures? The Bimler appliance, by its elasticity and movability, integrates easily into the mastication mechanism and its neurologic reflex control by the patient. The mechanical deformation of the wires springs creates forces of tension which translate into pressure towards the selected teeth.

3. Which is your opinion on the future perspective? In many countries, the health insurance decides which treatment system to pay for, and what method therefore is mainly applied. However, any health-oriented, painless, non-evasive approach will always be attractive, especially when the cost is low and the treatment time reduced to the eight hours of sleep.

A non-anchored elastic appliance also works a bit like a balance board as a continuous muscle training.

Guide Questions:

SEPTMBER 28, 2019
LISBON, PORTUGAL
CRANIOFACIAL GROWTH X MALOCCLUSION
WHY EARLY INTERVENTIONS?

The effectiveness of Bimler therapy

In young children, the use of the Bimler appliance (Bimler) provides superior transversal arch expansion. H.P. Bimler stated in his book that stable results can be achieved because it is done within the individual physiological borderlines of adaptability.

The Bimler appliance is not a maxillary type like the activator but consists mainly of wires. This construction serves proper elasticity for the tissues around the mouth and natural growth is effectively stimulated when the tongue touches the wires during swallowing and when the teeth touch the wires during lateral movements.

These are considered to be the most impressive mechanisms that realize the effects of Bimler therapy. This time, I researched the dental arch stability of cases which received arch transversal expansion by Bimler and obtained some interesting findings. In my presentation, I’ll show my results compared to the Schwarz appliance, as well as some cases where good facial balance was obtained.

DR. RITSUKI ITO
Japan
Director of Ito Orthodontic office
President of The AOA Bimler Study Club
Visiting professor of The University Autonomous State of Mexico.
Early Correction of Malocclusion Using Planas Direct Tracks

Acrylic Planas Direct Tracks for Anterior Crossbite Correction in Primary Dentition

Construction of Planas Direct Tracks by the Indirect Method with the Willis Compass

Neuro-occlusal rehabilitation by the Planas direct tracks method: case report

Oropharyngeal Airway Three-dimensional Changes after Treatment with Myobrace in Class II Retrognathic Children

Oropharyngeal Airway Dimensional Changes after Treatment with Trainer for Kids (T4K) in Class II Retrognathic Children

Orthodontic treatment for prominent upper front teeth (Class II malocclusion) in children and adolescents (Review)

New Therapeutics in Promoting and Modulating Mandibular Growth in Cases with Mandibular Hypoplasia
Dental Occlusion Influences the Standing Balance on an Unstable Platform

Mandible protraction alters Type I collagen, osteocalcin and osteonectin gene expression in adult mice condyle

Where Mouth Meets Eye

Sleep bruxism in adolescents: A systematic literature review of related risk factors

Influence of the construction bite vertical and horizontal dimensions on dentoskeletal structures induced by the Klammt appliance in Class II treatment

Treatment of Anterior Open Bite with the Bimler Functional Appliance: Report of Three Cases

Functionally orientated/systemic approach to orthodontic treatment of severe class II division 1 malocclusions: an adapted device, the FABP

Determination of Occlusal plane parallelism with Ala-tragus line and Retromolar pad in Class I, Class II and Class III individuals
Session 4: Breathing and Sleeping
CRANIOFACIAL GROWTH & MALOCCLUSION
WHY EARLY INTERVENTIONS?

SESSION 4
Breathing and Sleeping

Dr. Roger Price (USA) - Breathing disordered sleep.

Dr. Rita Tavares (Portugal) - Breathing the 'No question'. Improve your approach, get better results.

Dr. Inês Mendes (Portugal) - How Myofunctional Therapy can help on breath disorders? What is your experience about the accomplishment of patients and family?

Dr. Kenneth Lee (Australia) - Considerations about the white paper of AAO (2019).

Dr. Patrick Malouin (Canada) - The role of Buteyko Breathing in each phenotype of obstructive sleep apnoea.

Dr. Mike Mew (England) - What interventions do you make when you have a child with obstructive sleep apnoea? Is it a high prevalent problem on your clinical life?

Dr. John Mew (England) - Sleep Apnoea. Definition, pauses in breathing or periods of shallow breathing during sleep.

SEPTEMBER 28, 2019
LISBON, PORTUGAL
The scientific and anatomical basis of Planas growth and development laws

When Dr Pedro Planas stated his growth and development laws, he supported them on his clinical observations and on natural biological phenomena. There are many factors and stimuli that lead to these structural growth and major growth centers of growth on the maxilla are the median and transversal palatal suture. The sagittal and transversal growth and development law postulate very well the relevance of these centers as well as the importance of the stimulus generated by one of the most natural reflexes: the mastication.

The masticatory movements need the functioning of the neuromuscular system to be executed. Those masticatory cycles movements generate the growth of maxillary bones on sagittal and transversal direction. It occurs when the disto-lingual inclines of vestibular cusps of mandibular teeth, touch the mesio-vestibular incline of maxillary palatal cusps. It happens because it generates compression/dilatation on the sutures. It allows the modulation of maxilla-arch perimeter and together with the perfect synchronism of natural mastication generates the most important stimuli for maxilla-mandibular development.
Breathing disordered sleep

The whole concept of medical advertising is to make us believe that these things are ‘normal’ and have to be treated. The reality is that the majority of diseases of the modern world are not caught – they are created as a result of what we are doing.

During this 30-minute discussion you will get the full picture of why this is happening and what you can do about it, now, to change your life and put you on the path to great health.

Join us to learn the fascinating facts about the 30,000–55,000 breaths we take every day of our lives including:
- Why we breathe
- What makes us breathe
- How breathing affects every function in the body
- How poor breathing is the cause of most sleep disorders
- Why nothing else matters if we fail to take the next breath.
Breathing the 'No question'
Improve your approach, get better results

Oral breathing is becoming more and more common every day and it is underdiagnosed. The dentist must accept the diagnosis of other specialties and make the connection between each specialty, promote the function of each muscle and each oral function.

Nasal breathing only happens with the mouth closed, the dentist should be the first to diagnose and help to refer the patient.

If you do not have the question in you, you will never hear the answer.

Clinical practices will be reported, differential diagnosis, signs and symptoms of the Oral Breather, clinical and therapeutic approaches, to recover the complete nasal breathing.

With specific techniques it is possible to reverse the pathological pattern installed. Success of the long-term dental treatment plan depends on this approach.
Craniofacial Growth and Malocclusion: Why Early Interventions?

How Myofunctional Therapy can help on breath disorders?
What is your experience about the accomplishment of patients and family?

This presentation aims to show the type of myofunctional therapeutic intervention in patients with respiratory disorders. Currently, this area is being widely studied, discussed, and intervened by different professional areas such as Otorhinolaryngology, Dental Medicine, Speech Therapy and Physiotherapy. It's believed that respiratory changes can occur from a simple change of habit causing damage to the human being. Some of these impairments are quite visible, such as facial asymmetries and postural problems, and others less visually perceptible, such as occlusal and phonetic alterations.

It's important to carry out a thorough evaluation to identify the clinical actors and form a multidisciplinary team for the best therapeutic success. The myofunctional intervention involves the awareness of the problem, massotherapy, myofunctional exercises, training of the respiratory mode and activities directed to the attention/perception of the respiratory type. Clinical cases of myofunctional intervention will be reported.
Considerations about the white paper of AAO (2019)

In the past, it was initially thought that there was no relationship between occlusion and the resulting position of the TMJ. This has been proven wrong and landmark cases such as Winslow vs. The University of Minnesota has shown that placing the teeth in the wrong position in relation to the rest of the skull may result in a less than optimal resulting position of the TMJ that would then result in temporomandibular disorder.

The white paper (AAO) released in March 2019 has found a causal relationship between airway/sleep-disturbed breathing and has highlighted the importance of the orthodontic practitioner to be vigilant in assessing airway prior to commencement of orthodontic treatment.

Many aspects of the white paper shall be discussed during this lecture.
The role of Buteyko Breathing to each phenotype of obstructive sleep apnea

Subjects over 60 years of age are six times more likely than younger subjects to spend more than 50% of their sleep time utilizing oronasal breathing (Madrono 2003). Oral breathing increases the severity of sleep apnea via a number of mechanisms. Pharyngeal airway dimensions are lower in oral breathing than nasal breathing (Alves 2011) and with this an increase in upper airway resistance. There is also a marked reduction in upper airway muscle activity when air bypasses the nose (Fitzpatrick 2002). Poor upper airway muscle responsiveness increase the duration of obstructive events as greater stimuli are required to activate the muscles to terminate the obstruction (Deschon 2016).

In addition, oral breathing results in greater use of the accessory muscles of respiration with reduced diaphragmatic amplitude. This reduces lung volume resulting in decreased stiffening and dilatation of the pharyngeal airway (Jordan 2014). Finally, nasal nitric oxide plays a role in the maintenance of muscle tone, regulation of neurovascular pathways in the pharyngeal muscles, spontaneous respiration and sleep regulation (De Sousa 2014). Restoring nasal and functional diaphragmatic breathing is essential to addressing a number of mechanisms involved in obstructive sleep apnea.
CRANIOFACIAL GROWTH X MALOCCLUSION
WHY EARLY INTERVENTIONS?

What interventions do you make when you have a child with obstructive sleep apnoea? It is a high prevalent problem on your clinical life?

It seems that both OSA and malocclusion are symptoms of incorrect growth and development of the craniofacial skeleton (Craniofacial Dystrophy).

Incorrect architecture leads to incorrect function. As a face downgrowth the space for the tongue is reduced and moves down and back, closer to the airway.

The interventions we use, orthotropics, aims to change the structure so facilitate someone changing as well as then training the posture and function. As a rule we treat everyone the same (affecting the same causes) with the view that most people with moderate to severe malocclusion, have or will gain a level of OSA at some point later in their life.

DR. MIKE MEW
England

Lecturer and lead clinician at the London School of Facial Orthotropics.
Interested in the growth and development of the face, in identifying the effects of changes in posture, function and muscle tone and its relationship to orthodontic problems.
Sleep Apnoea: Definition, pauses in breathing or periods of shallow breathing during sleep

Obstruction can occur at three points:

a) Naso-Pharynx
b) Oro-pharynx
c) Tongue

Total blockage is rare but nasal restriction is common in childhood. There is no natural airway in the oropharynx where most obstruction takes place. Below the trachea, the airway is protected by cartilaginous rings.

Patients are frequently over-weight. Cure:

1) Surgery to create space
2) Clearance of Nasal Airway, not very effective
3) Forward positioning appliance, leads to retracted maxilla
4) Breathing exercises
5) Orthosutures to create forward growth
6) Tennis ball in sleep wear
7) CPAP
Articles

- Sleep apnoea and dysfunctional breathing
- Buteyko breathing for asthma (Protocol)
- The physiological effects of slow breathing in the healthy human
- Association between oral habits, mouth breathing and malocclusion
- Guidelines proposal for clinical recognition of mouth breathing children
- Assessment of upper airways measurements in patients with mandibular skeletal Class II malocclusion
- Dentofacial characteristics of oral breathers in different ages: a retrospective case-control study
- Evaluation of changes in the upper airway after Twin Block treatment in patients with Class II malocclusion
- Pediatric obstructive sleep apnea and the critical role of oral-facial growth: evidences
Myofunctional Therapy to Treat Obstructive Sleep Apnea: A Systematic Review and Meta-analysis

Obstructive sleep apnea: focus on myofunctional therapy

Randomized controlled study of a mandibular advancement appliance for the treatment of obstructive sleep apnea in children: A pilot study

Orthodontics: Causes of malocclusion

‘Does traditional orthodontics ruin faces?’ – a debate

The dilemma of early treatment

Science versus empiricism

Tongue Posture

Middle ear effusion: An orthodontic perspective
A black swan?

The Relationship between Depressive Symptoms and Obstructive Sleep Apnea in Pediatric Populations: A Meta-Analysis
ORAL PRESENTATIONS

1. Dr. Maria Emma Zableh (Colombia) - Planas direct tracks effectiveness in the correction of temporary and mixed dentition posterior cross-bite
2. Dr. Luciano Kazuo Murakami (Brazil) - The relevance of frontal evaluation to detect transversal malocclusion (clinical cases)
3. Dr. Cristina Buta Michel (Brazil) - Mandibular dynamics recovery at deciduous dentition in Brodie syndrome treated with neuro-occlusal rehabilitation
4. Dr. Rita de Cassia Pedroni (Brazil) - Preventive treatment of maxillary canine impacted based in the new concept of serial extraction
5. Dr. Murilo Bovi Corsi (Brazil) - Early treatment of mesioclusion class III with Functional Orthopedics appliance.
6. Dr. Almiro Machado Júnior (Brazil) - Orthopedic Mandibular Advancement in Children with Obstructive Sleep Apnea: A Review and Meta-analysis.
7. Dr. Marila Azevedo (Brazil) - Sleep bruxism in children, its relation to central nervous system, oral breathing and anxiety
8. Dr. Mónica de Oliveira Santiago (Brazil) - Finite element analysis of stress and strain in articular discs of TMJ in two different patterns of disocclusion
9. Dr. Massimo Scioletti (Italy) - Dental verticality
10. Dr. Jeanne Iwayama (Brazil) - Chewing and cognitive function
11. Dr. Joana Fróis (Portugal) - Correlation between chewing, laterality (handwriting) and teeth eruption side in children of the Cuf Cascais Hospital / Portugal
POSTERS

1. Dr. Silvana Silveira - The Increased Prevalence of Malocclusion in Modern Humans: Na Integrative Review
2. Dr. Silvana Silveira - Serial Extractions according to eruption corridors analysis
3. Dr. Maria A. Carvalho - Clinical observations and documentation in front of facial asymmetry before the age of 6
4. Dr. Renata Pessini - Plana Direct Track with celluloid crowns: an alternative of confection
5. Dr. Renata Pessini - Diagnosis and treatment of class III malocclusion in childhood: the time ideal for intervention
6. Dr. Karina Bittar - Relationship of unilateral posterior crossbite with body posture: a clinical - case report
7. Dr. Karina Bittar - Protocol for use of the baropodometer in children from 4 to 12 years
8. Dr. Idil Hepsen - Correcting Deepbite and Basal Bones by Jaw Functional Orthopedics
9. Dr. Idil Hepsen - Early Correction on Craniofacial Growth Allows Preservation of Teeth
10. Dr. Paulo A. Schinestsck - The unobstruction of robin's vital confluent with open elastic klammt's activator
11. Dr. Ariane Furtado - Anterior crossbite treatment in primary dentition through digital flow: a case report
12. Dr. Fisun özgür - Treatment of Identical Twins with Distocclusion and Broken Protrusion by Using SN3
13. Dr. Fisun özgür - Treatment of Transversal Growth Discrepancy by using Jaw Functional Orthopedics
14. Dr. Fatos Barluk - Treatment of a Tongue Sucking and Oral Breather patient by using Simoes Network2 (SN2) and Simoes Network 24 (SN24) and Buteyko Breathing Technique
15. Dr. Leonardo D. Cavalcanti - Project: Teaching to Smile
16. Dr. Anne Cecile - Start orthodontic treatment early to avoid teeth extractions
17. Dr. Rodrigo Vaz de Melo - Differential diagnosis of styloid process elongation syndrome, basilar impression and TMD
18. Dr. Valeria Medau - If it’s genetic, there’s nothing to do?
19. Dr. Valeria Medau - Oral Void Volume
20. Dr. Claudia Nakandakari - Comparison of two early treatment protocols for anterior dental crossbite in the mixed dentition: A randomized trial
21. Dr. Cristina Miamoto - Impact of two early treatment protocols for anterior dental crossbite on children’s quality of life
22. Dr. Andrea de Carvalho - OFM as an adjuvant treatment in surgical approaches of goldenhar syndrome: clinical case
23. Dr. Andrea de Carvalho - Treatment of previous cross bite in children of 0 to 6 years ofm: clinical case
24. Dr. Renata Orsi - Jaw Functional Orthopedics in Oral Therapy in Prader-Willi Syndrome
25. Dr. Renata Orsi - Treatment of ankyloglossia in the newborn - Strategy to promote breastfeeding
26. Dr. Yasemin Özdemir - The Effect of JFO Appliances to the Respiratory System: Clinical Case
27. Dr. Mariella Izquierdo - A new position of tongue and its functional importance after planas’ direct tracks therapeutic
28. Dr. Filiz yamaner - Correction of Openbite with Disto-occlusion with Functional Treatments
29. Dr. Filiz yamaner - Congenitally missed laterals in a Class 3 Patient
30. Dr. Anna Melnikova - The benefit of restoring orofacial muscle function on Root Resorption
31. Dr. Marta Arnaut - A School-based Preventive Oral Health Programme in Uno’s Island – Bijagós, Guinea Bissau
32. Dr. Patricia Rocha - Treatment of preschool apneic with Functional Orthopedics of Jaws in a longitudinal perspective - Case report 1
33. Marila Rezende Azevedo - Skeletal open bite in children, exclusive jaw functional orthopedics therapy and transdisciplinarity
34. Dr. Inês Mendes - Treatment of functional muscle imbalance and malocclusion through myofunctional therapy and functional jaw orthopedics
35. Dr. Sandra Moisés - Functional Jaw Orthopedics Appliances can induce mandibular growth? - Case report
36. Dr. Ana Forjaz - Early Treatment of Openbite with Simões Network Appliances: Case Report
37. Dr. Carina Esperancinha - Early Treatment of Hyperdivergence with Simões Network Appliances: Case Report
38. Dr. Dean Dino Scioletti - Dental verticality
Childcare Assistance According to Developmental Stages

Case of reversed occlusion (Anterior cross-bite)

Early Intervention from the Viewpoint of Weaning Food

Severe tooth wear in Prader-Willi syndrome. A case-control study

Life Rhythm as a Symphony of Oscillatory Patterns: Electromagnetic Energy and Sound Vibration Modulates gene Expression for Biological Signaling and Healing

Pain and disease according to integral anthroposophical dentistry*

Mastication as a tool to prevent cognitive dysfunctions

Masticatory Deficiency as a Risk Factor for Cognitive Dysfunction

Three-dimensional morphological characterization of malocclusions with mandibular lateral displacement using cone-beam computed tomography
Planas Direct Track in the Early - Treatment of Unilater Crossbit with Mandibular Postural Deviation. Why Worry So Soon?

The Prevalence of Malocclusion and Oral Habits among 5–7-Year-Old Children

Neuro-behavioral pattern of sleep bruxism in wakefulness

International consensus on the assessment of bruxism: Report of a work in progress

Digital Screen Media and Cognitive Development

Changes in human skull morphology across the agricultural transition are consistent with softer diets in preindustrial farming groups

Cranial base evolution within the hominin clade
Foreign language publications

Tratamiento Temprano de las Maloclusiones sin Aparatología Funcional: Presentación de Dos Casos Clínicos

Efectividad del Equiplán en el tratamiento del Síndrome de Clase II División 1

Reabilitação neuroclusal pelo método das Pistas Diretas Planas

Avaliação de três parâmetros dimensionais mandibulares em pacientes classe II e classe III entre 6 e 10 anos

Aleitamento materno: amar, nutrir e crescer. Implicações clínicas da promoção do aleitamento materno na prática profissional do Cirurgião-Dentista

Crescimento e desenvolvimento craniofacial: entre a tenra infância e a adolescência

Pistas Diretas Planas para o tratamento de mordida cruzada posterior
Foreign language publications

Correção de mordida cruzada anterior funcional com a terapia de pistas diretas planas: relato de caso

Efectos de la ortopedia funcional de los maxilares sobre las dimensiones de los arcos dentales en pacientes con mordida profunda en dentición primaria.

Neuroclusal rehabilitation and planas direct tracks in the posterior crossbite treatment