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## Three Year Orthodontic Program: Cranio-Mandibular Orthodontics, Function, and Occlusion – The Paradigm shift in Orthodontics

2020 – 2023: Dec 2 – 5 / Mar 10 – 13, 2021 / continues every Jun, Sep, Dec, March – dates TBD

Dear Colleagues,

This Three-Year Orthodontic Program will teach you in theory and practice the principles and techniques for an orthodontic approach which avoids orthognathic surgery, avoids premolar extractions, and does not need retention other than three months after orthodontic treatment. It is an orthodontic concept which is highly predictable, long-term stable, and backed-up with tremendous research.

This Orthodontic concept is developed by two outstanding researchers and excellent clinicians: Prof. Rudolf Slavicek, Vienna, Austria and Prof. Sadao Sato, Yokosuka, Japan, who dedicated their lives to the understanding of the Masticatory system and Cranio-mandibular system under the aspects of dynamics – function and occlusion.

This program is addressed to General Dentists who want to add orthodontics to their interdisciplinary skills or to Orthodontists who are looking for new treatment options for complex cases. Treatment alternatives to orthognathic surgery, premolar extractions, extra-oral forces, and treatment for malocclusions with dysfunction are thoroughly presented.

The interactive format of lectures, case presentations, intense hands-on, and live patient treatment allows you to fully integrate the “Slavicek/Sato” concept into your practice. This format has been successfully taught for over 20 years to thousands of dentists and orthodontists from around the world, from countries such as Germany, Austria, Poland, Italy, Portugal, Canada, Russia, Columbia, Brazil, Chile, Japan, Korea and China, and many others.

The modular structure of 3- to 4-day segments allows you to continue your practice and to attend this program.

Due to the standardized functional diagnostics and documentation, you are able to present your cases with the essential information to allow treatment planning and to start treatment.

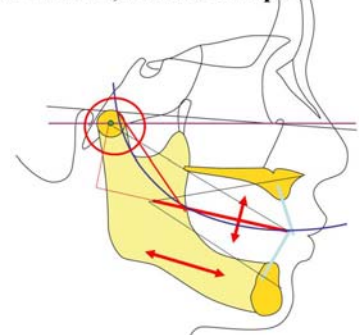
In every module your patient cases will be reviewed, and further treatment steps will be decided and also performed in the course. You are invited to bring your patients to the course.

It is our goal to make you to an expert in non-orthognathic-surgery, non-premolar-extraction, and no-retainer orthodontics that are predictable and stable in the long-term. It is our goal to enable you to treat patients who cannot be treated with conventional orthodontics.

When you learn the “Slavicek / Sato” concepts you are entering a dental world which is way ahead of anything else in the dental field.

This treatment approach will be a complete paradigm shift and will have a huge impact on your dental career. You will become the problem solver way beyond your community. We welcome you to join our group!

**Denture Frame, Functional Space**





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## About the Concept

### Occlusal Plane and Malocclusion

Growth of the craniofacial structures is dependent upon the principles of occlusal plane and mandibular adaptation. Prof. Sato's studies have shown that the steep cant of the posterior occlusal plane induces a backward rotation of the mandible. A forward adaptation of the jaw is readily observed on those having a flat plane of occlusion.

The development of skeletal malocclusions such as Class II, Class III and mandibular lateral deviation (MLD) cases are clearly dictated by their respective occlusal plane configurations. This is because the neuromuscular system adapts to the function of articulation followed by skeletal adaptation. Therefore, the correction of the vertical dimension of the posterior teeth and the control of the occlusal plane is necessary in the treatment of malocclusions.

Prof. Sato's extensive research showed the adaptive capacity of the mandible and joints. Therefore, the principle of mandibular adaptation, which occurs naturally in human growth, can be applied in orthodontic therapy. This allows stable results to be obtained through treatment of the etiology rather than symptomatic treatment.

### Functional Analysis – understanding the Occlusal Plane in consideration of mandibular movement

The primary focus in most orthodontic treatment is towards teeth and their articulation- how they contact and move in relationship to each other. Unfortunately, function is not the main concern. A proper diagnosis and treatment plan, in regards to the dynamic function of the masticatory system (joints, muscles and their associated structures), is necessary prior to any occlusal reconstruction.

Based on functional analysis, there are many cases which should avoid tooth extraction and orthognathic surgery. It is very important to characterize the malocclusion and to understand the role of dynamic occlusion in order to make a correct diagnosis and treatment plan.

This is the reason why the "Slavicek/Sato" concept can achieve treatment results which no other concept can achieve, with simple mechanics and shorter treatment times.

## The Course Format and Treatment Philosophy

This three-year program is divided in two parts:

Part 1, the "Diagnostic Continuum," will teach you the principles of function, occlusion and the cranio-mandibular system according to the Concept of Modern Gnathology of Prof. Rudolf Slavicek. This diagnostic knowledge sets the foundation in diagnosis and treatment planning for every dental discipline.

You will learn to collect the necessary diagnostic data and to set up comprehensive treatment plans and initial therapy.

In part 2, the program specializes in orthodontic treatment according to the philosophy and concepts of Prof. Sadao Sato.

### Part I: What is different from any other "Occlusion Program"?

Prof. Slavicek realized that successful and stable dentistry is dependent on the dynamic function, which means how teeth are moving in relationship to each other, rather than just looking to static tooth contacts in occlusion. Tooth movement is based on mandibular movement, which is based on the temporo-mandibular-joints and their surrounding structures.

In his tremendous research and publications, since 1984 to the present, Prof. Slavicek can show the determinants which lead to harmony in the masticatory system and guide the diagnostic and treatment planning process. Based on development and growth, it is evident how the guidance system and occlusal plane inclination are related to the clinical condylar pathway inclination.

Also, every joint has a "zero" position and every muscle has a certain vector. Dentistry must respect this fact and must understand how to position the teeth in order to keep or to achieve harmony in the chewing system. Traditional dentistry

is treating teeth as if they were independent from their driving structures. This often leads to dental interferences, restriction of the mandible, and overload of teeth, muscles and joints. The result is that dentists and orthodontists are faced with the failures of their own work.

## Part 2: What is different in the “Sato” concept compared to any other orthodontic concept in the world?

Prof. Sato faced the failures and relapses of his own cases through long-term observation of his patients. This made him realize that another approach in orthodontics is necessary and triggered significant research.

In the year 1989, Prof. Sato met Prof. Slavicek and incorporated the “Slavicek concept of function and occlusion” into orthodontic treatment. This was the turning point in his career. Since then the two Professors are working closely together.

Today, Prof. Sato’s approach takes into consideration not only tooth movement, but also the adaptation capacity of the mandible and joints. Despite the presence of numerous cosmetic techniques, this concept is based on solid functional principles. The principle of mandibular adaption, which occurs naturally in human growth, can be applied in orthodontic therapy. This allows obtaining stable results through treatment of the etiology rather than symptomatic treatment.

Therefore, the “Sato” concept can achieve treatment results which no other orthodontic concept can achieve, such as:

- » severe class II, class III open bite cases treated with non-orthognathic-surgery and non-premolar-extraction
- » successful orthodontic treatment of dysfunctional patients
- » short treatment times (1.5y), short retention phase and treatment outcomes with life-long stability

All of this is achieved with simple mechanics, rather than a complexity of orthodontic tools or extra-oral forces. Wire bending takes a maximum of 15 minutes. Usually the same wire is used over the entire course of treatment.

When you learn the “Slavicek / Sato” concepts you are entering a dental world which is way ahead of anything else in the dental field.

This treatment approach will make your dentistry highly predictable and stable over the long-term, your dental life much easier, and your practice outstanding.

**You will become the problem solver way beyond your community.**

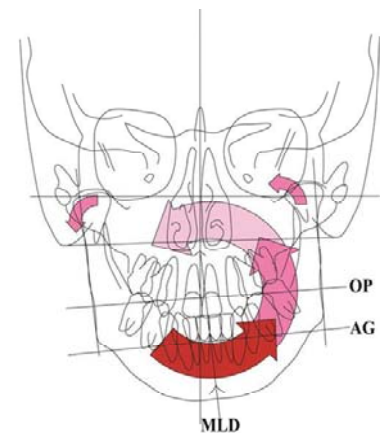
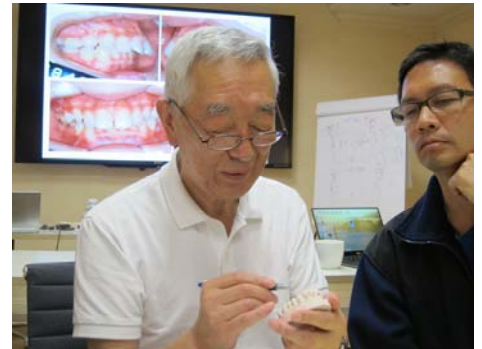
## Part 2: Course Content

### Lectures including

- Evolution – Concepts of facial growth – Causes of malocclusion
- Developmental Aspects of Different Malocclusions and Its Diagnosis and Orthodontic Treatment
- Development of Class III
- Open Bite
- Mandibular Lateral Deviation (MLD) Malocclusions
- Posterior Discrepancy
- Tooth Extraction in Orthodontics
- Class II Malocclusion
- Occlusal Plane, Retrusive Guidance
- Temporo-Mandibular-Disorders



- Factors for Malocclusion
- Reference Position (RP) vs. Therapeutic Reference Position (TRP)
- Application of BruxCheckers
- Function and Dysfunction of Cranio-Mandibular System (CMS)
- Diagnosis using Cephalometric and Functional Data:  
Dental Frame Analysis  
Occlusal Planes  
Relative Condylar Inclination (RCI)
- Relative Condylar Inclination – indicator for posterior interferences
- Angle of Disocclusion (AOD) - your safety belt in bruxing patients
- Spherics of Occlusion – Compensation curves of Spee and Wilson  
Distance to Occlusal Plane (DPO)
- Concept of Sequential Guidance Occlusion
- Treatment Mechanics for Different Malocclusions without Surgical Intervention
- Orthodontic Treatment of patients with Dysfunction of the Craniomandibular System and other Complex Problems
- Early treatment:  
Appliances used in early stage of treatment, indications, limitations, literature review
- Interceptive treatment in early stage - overlay treatment



**Orthodontics based on Functional Diagnostics:**

- Cephalometric analyses of Prof. Sato
- Cephalometric analyses of Prof. Slavicek
- Clinical functional analyses
- Condylography / mounted casts / adjustable articulator
- Correlation of collected information
- Dynamic factors in occlusion
- Analyses of mandibular position
- Physiologic reference position (RP), Deranged reference position (DRP)
- Occlusal plane under the aspect of function
- Analyses of guidance system and control system





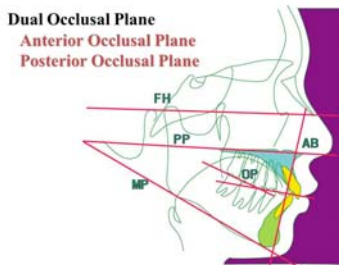
### Orthodontic Practice

- The biomechanics in orthodontics: tooth movement and orthodontic forces
- Orthodontic photography
- Positioning of brackets
- Levelling: Simple leveling (Plain wire); Strategic leveling (OCS, MOAW); Enlargement (E-arch, MOAW, Overlay wire);
- Structure and function of MEAW: Multiloop Edgewise Arch Wire
- Activation of MEAW, tip-back bend, step bend, torque control
- Modification wires and their function: Modified Offset Arch Wire (MOAW), GEAW, Sectional Modified Offset MEAW (SMOM), DAW and Mulligan overlay wire
- Bending method, construction of loops and their meaning
- Adjustment strategies of wires
- The use of TADs
- Detailing and finalization in Orthodontic treatment



### Fundamental Concepts of Modern Gnathology

- Anatomy of the stomatognathic system
- Functional periods of development: shape and function - morphology
- Principles of functional occlusion according to Prof. Slavicek
- Functional cephalometric analyses
- Bruxism: function and dysfunction
- The BruxChecker
- Control of occlusal plane, posterior discrepancy and extraction of third molars



### Important factors in the treatment for skeletal malocclusion:

- Inclination of occlusal plane
- Posterior vertical dimension
- Occlusal Plane and denture frame analyses

### Treatment Strategies



### Diagnosis and Orthodontic Treatment

- Skeletal class III: high angle and low angle cases
- Treatment of Class III open bites
- Skeletal class II: open bites, deep bites
- Orthodontic treatment of crowding
- Treatment of Mandibular Lateral Deviation (MLD) cases: treatment of functional asymmetries in adults and adolescents
- Early orthodontic treatment using overlays for mandibular positioning
- Orthodontic treatment of dysfunctional patients
- Complex interdisciplinary cases



## Part 1: Course Content

Part 1 teaches the principles of function, occlusion, and the cranio-mandibular system according to the Concept of Modern Gnathology of Prof. Rudolf Slavicek.

The primary focus in most orthodontic treatment is towards teeth and their articulation. Unfortunately, function is not the main concern. A proper diagnosis and treatment plan, in regards to the dynamic function of the masticatory system (teeth, joints, muscles and their associated structures), is necessary prior to any occlusal reconstruction.

All these components are interacting with each other and are directly involved in keeping proper functions: breathing, swallowing, phonation, mastication, posture, and stress management (bruxism). It is evident how these functions can affect the entire human being from soma (body) to psyche.

As dentists and orthodontists, through dental treatment, we are able to influence the masticatory system to keep patients in good function and to restore the health of dysfunctional patients.

The extensive development in dentistry and the new life style is challenging for the adaptation mechanisms of the cranio-mandibular system. Therefore, it is more important than ever to incorporate the proven principles of function and occlusion into dental and orthodontic work.

The Diagnostic Continuum will teach you the principles of functional diagnostics. These are essential to understand the etiology of our patient's problems, to diagnose, to treatment plan, and to perform predictable treatment which is stable over the long-term.

It is our goal to make you to an expert in the fundamentals of every successful case:

### FUNCTIONAL DIAGNOSTICS

.... to make your professional life easier and even more fun.



## The state-of-the-art concepts in diagnosis and treatment planning of dental patients

Clinical and scientific concepts following the Concept of Modern Gnathology of Prof. Rudolf Slavicek  
Analyses, interpretation, conclusive diagnoses, and consecutive treatment planning in interdisciplinary dentistry

Demystifying occlusion, function, and cranio-mandibular disorders

Standardized clinical functional and instrumental functional diagnostic procedures

Understand how to evaluate the cranio-mandibular system and how to set up your cases

Come to a diagnosis

Interdisciplinary treatment planning

Occlusal concept for: full dentition, orthodontic treatment, partial dentition, full dentures, implant cases

Wax-up concept

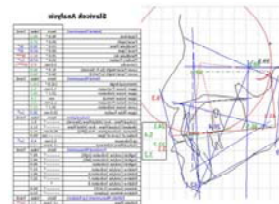
Lectures, intense hands-on, and implementation protocols for your practice

All participants will perform and exercise all diagnostic steps, documentation, and case planning

**This program is a commitment to yourself and to your patients. It will have a tremendous impact on your practice and professional career.**

### Lectures, including:

- Anatomy and physiology of the cranio-mandibular and neuromuscular system
- Principles of occlusion in regular dentition and malocclusion
- Functions of the system (breathing, phonation, mastication, posture, and stress management (bruxism))
- Occlusion under functional aspects and its impact on treatment and dental work
- History of occlusion concepts vs. modern gnathology
- The masticatory system as a feedback control system
- Eufunction vs. dysfunction
- Essentials of functional diagnostics and diagnostic procedures
- Cephalometrics – importance of the skeletal layout and its integration in the diagnostic and therapeutic process
- Wax-up concept and principles of Canine Dominated Sequential Occlusion
- Interdisciplinary treatment planning
- Cases



### Clinical functional analyses:

- First consultation: the new patient, initial interview
- Anamnesis: medical and dental history
- Occlusal index
- Clinical functional examination: muscles, joints, neurological screening
- Intraoral examination and periodontal screening
- Occlusogram: first analyses of tooth guided dynamics





- Tips for improvement: impression and model fabrication
- Maxillo-mandibular relation: reference position.44
- Recording of joint related intermaxillary relation: bite registration
- Standardized digital dental photography
- Digital documentation
- BruxChecker: diagnosis of sleep bruxism, occlusal analyses of guidance system and interferences



**Instrumental functional analyses:**

- Articulator and face bow: understanding the principles
- Face bow: anatomical and kinematic
- Transfer of upper jaw related to cranium
- Joint related mounting of the lower jaw
- Spilt cast control
- Electronic Condylography and hinge axis
- Mounting of maxilla according to hinge axis
- Mounting of mandible related to reference position
- Articulator programing: simple
- Anterior diagnostics: lingual concavity vs. tooth axis, steepness of guidance
- CPM – electronical condyle position measurement
- Computerized Cephalometrics: integral part of interdisciplinary dentistry





## Step out of your comfort zone and discover a new dimension!

*"When I started this course I went through confusion, doubt, and fear about applying this treatment concept in my practice. The moment I felt confident and applied it in my daily practice of orthodontics I experienced an endless excitement and enthusiasm that improved my professional life and satisfaction."*

Petros Kokkinos, Orthodontist, Limassol, Cyprus

*"If your desire is to be a better dentist providing optimal care to your clients, IDEA is the place to be. Intensive learning with outstanding speakers (Heike, Professor Sato, Roberto) who are ready to lead you on a long, satisfactory journey. Thank you. (Even though my BP goes up two weeks prior to the meeting, I leave with innovative ideas to be a better DMD.)"*

Anh Khieu, General Practitioner, Tyrone, GA

*"The course is great. It is challenging and continues to keep me interested in orthodontics according to Prof. Sato's technique, philosophy, diagnosis, and treatment planning. I am amazed at the cases that are treated and that we are able to treat."*

Marcus Kai, Orthodontist, San Jose, CA

*"This is the only way to practice if you want to call yourself a doctor."*

Namik Yusufov, General Practitioner, New York, NY

*"Great food, great hospitality, and most of all great learning. The invaluable concepts of Slavicek and Sato are presented in a clear and digestible format. The material is challenging and career defining. Thank you!"*

Sheetal Patel, Orthodontist, London, UK

*"Every single time I go home with new, brilliant, and life changing information. It's always a pleasure Professor Sato, Heike, and Roberto."*

Pauline Puno, General Practitioner, San Francisco, CA

*"This time I was especially happy because I learned a lot of practical applications and continued to get a deeper understanding of the clinical problems."*

Karl Mueller-Bruckschwaiger, General Practitioner, Zwettl, Austria

*"This course has changed my life and the lives of my patients. I've learned to treat patients I never thought that I could, and I've made life-long friends."*

Cristina Herrera, General Practitioner, Los Gatos, CA

*"This is not only an orthodontic course, it is the principle of dentistry taught by the best experts in their fields – I can't recommend this course enough to every dentist in the world. It enriches your professional life and benefits immensely your patients. Thank you."*

Thuan-Anh Nguyen, General Practitioner, Wheaton, MD

*"Everyone talks about ideal dental treatment. This is how it should be done."*

Wade Lee, General Practitioner, Sunnyvale, CA



## We welcome you in our group!

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