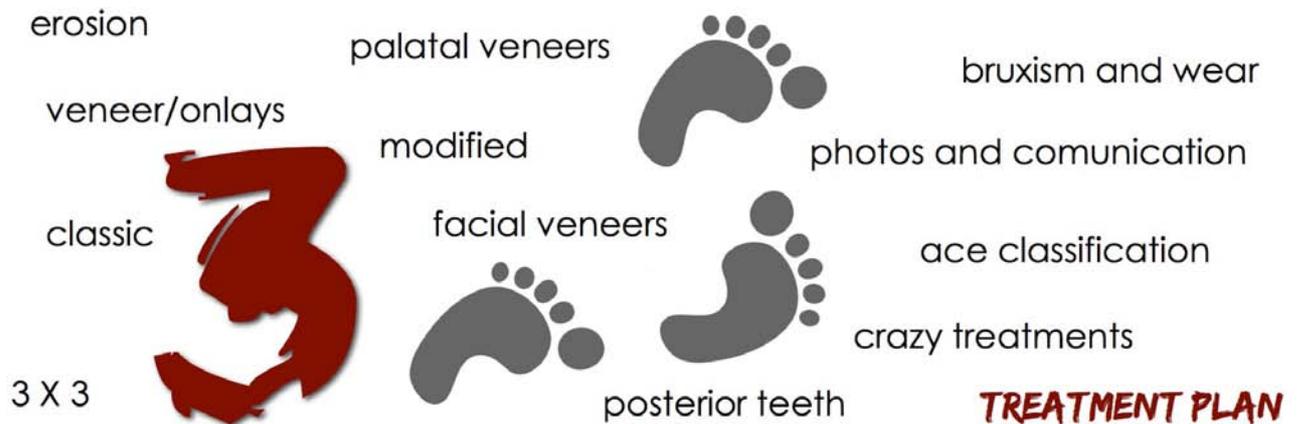


# ADHESIVE **ADDITIVE** REHABILITATION

Francesca Vailati



The 2-day theoretical practical courses on the 3 Step technique are very intense.

There will be a first meeting called BASIC and a second one called ADVANCE.

The participants will be submerged by an enormous amount of clinical information and the available time will be short.

Dr Vailati has organized the course to be very clinically oriented, with some homework that the participants should do before coming to the course:

1. Fabrication of 3 composite palatal veneers ready to be bonded in the mouth.
2. Collection of 10 clinical pictures of a case of dental wear to communicate with the patient and the laboratory technician for the treatment plan.

The execution of this homework is crucial for the development of the second meeting.

# Basic 3 STEP

1. Introduction to dental wear and dentists' attitude
2. Dental erosion, why, how, when...
3. The ACE classification and treatment planning for the maxillary anterior teeth
4. The CLASSIC 3 STEP technique. STEP 1 (mock-up and aesthetic)
5. The CLASSIC 3 STEP technique. STEP 2 (posterior support and increase of VDO)
6. PRACTICAL COURSE: the transparent keys and the white bite
7. The CLASSIC 3 STEP technique. STEP 3 (palatal veneers)
8. Protocol for collecting photos for treatment plan

## 1. Introduction to dental wear and dentists' attitude

Dental wear is a frequently underestimated pathology that nowadays affects an increasing number of younger individuals. A controversial debate on why the conventional treatment should be avoided or at least postponed (crowns versus adhesive dentistry) will be developed. The rationale behind an additive non-invasive approach versus subtractive dentistry will be analysed. Several cases of patients affected by dental erosion will be shown and the treatment plan discussed in details, with all the possible complications and solutions.



## 1. Dental erosion, why, how, when...

Before starting any dental treatments a diagnosis on the origin of the tooth damage should be made. Even though loss of tooth structure is often multifactorial, clinicians should try to identify the cause, to explain patients how the restored dentition will be aging in the future. Differential diagnosis between erosion and parafunctional habits will be presented.



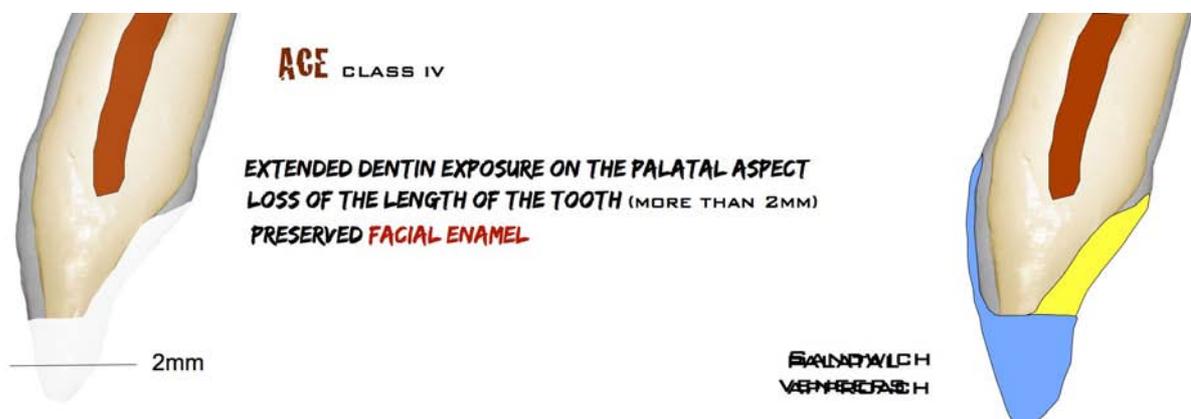
### 3. The ACE classification

#### and treatment planning for the maxillary anterior teeth.

In session a new classification is proposed to quantify the severity of the dental destruction and to guide clinicians and patients in the decision making process.

Instead of trying to precisely quantify the wear due to erosion, dr. Vailati proposes to correlate the damage at the level of the anterior maxillary teeth to the consequent possible options of treatment. Patients are grouped in six categories, and for each of them a dental treatment plan is suggested.

The classification is based on several parameters, relevant for the selection of the treatment and the assessment of the prognosis, such as the dentin exposure in the contact areas, the preservation of the incisal edges, and the pulp vitality.

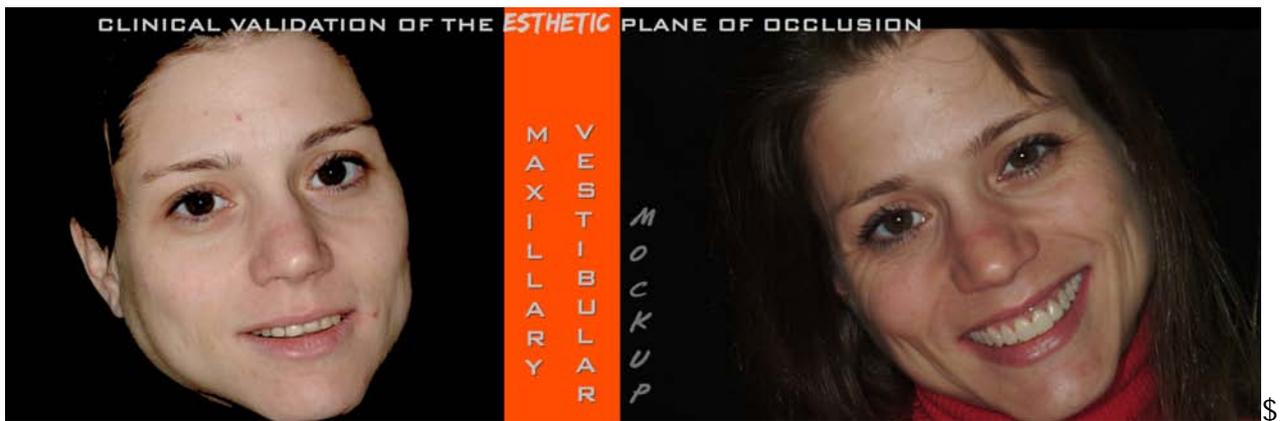


### 4. The CLASSIC 3 STEP technique:

#### STEP 1 (mock-up and aesthetic)

Despite the tendency for adhesive techniques to rather simplify the involved clinical and laboratory procedures, treatment of patients affected by severe dental erosion still remains a challenge. An innovative approach called the 3 STEP technique has been developed by the author. The 3 STEP technique is a structured approach to achieve a full-mouth adhesive rehabilitation with the most predictable result, the minimal tooth preparation, and the highest level of patient acceptance.

In this session, it will be explained in the details how to plan and execute this type of full-mouth adhesive rehabilitation following the CLASSIC approach, and the esthetic mock-up.



## 5. The CLASSIC 3 STEP technique:

### STEP 2 (posterior support and increase of VDO)

Following the CLASSIC 3 STEP, the posterior teeth are restored by means of provisional composite restorations made directly in the mouth with transparent keys. In this session, details on how decide the increase of vertical dimension of occlusion will be delivered. Special attention to the communication with the laboratory technician in the fabrication of the wax up of the posterior quadrants will be stressed.





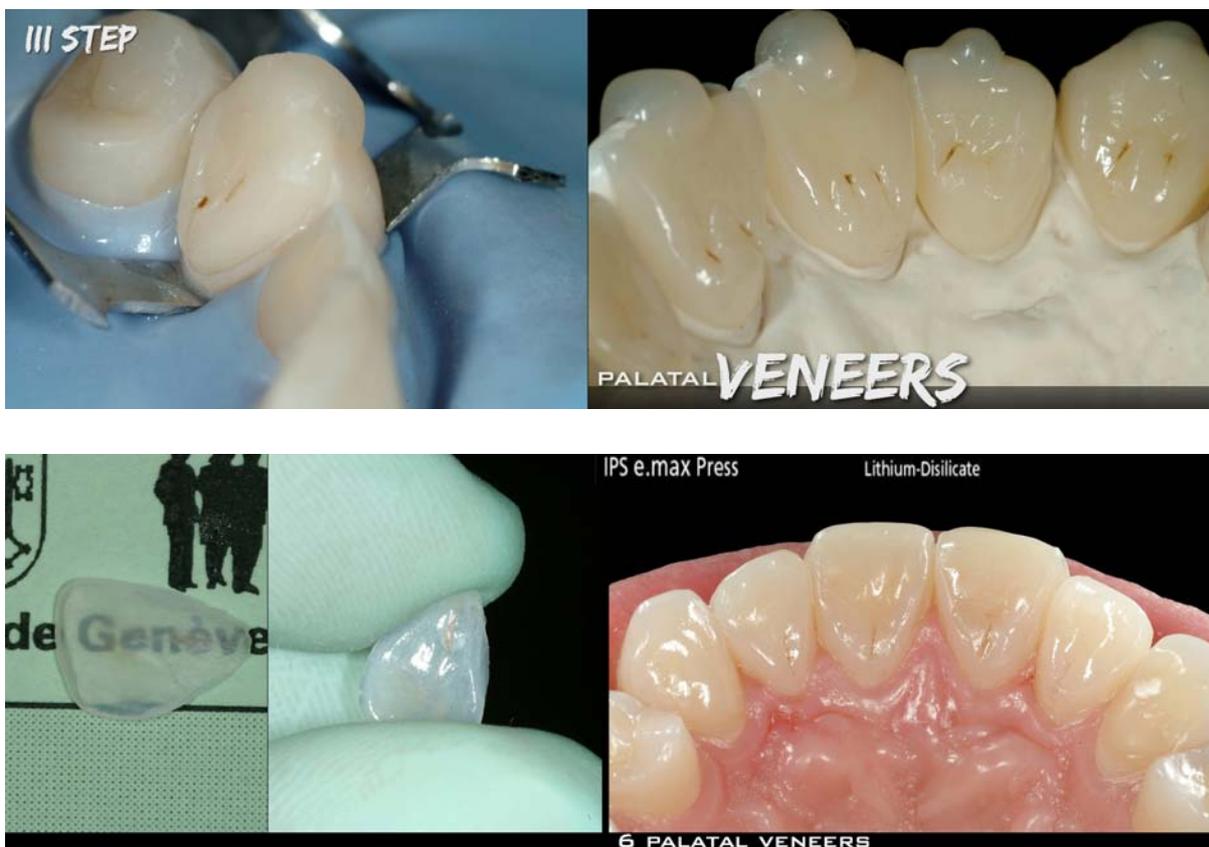
**6. PRACTICAL COURSE: the transparent keys and the white bite**  
Generally the transparent keys necessary to fabricate the provisional restorations in the II STEP are not correctly fabricated by laboratory technicians, leading to clinical complications during the II STEP, such as altered occlusion, or interproximal excesses. To avoid these latter, clinicians should be able to evaluate the posterior waxup and the transparent keys. During this session, the participants will fabricate a transparent key on a real case and with that press composite to mimick the clinical step. Example of laboratory and clinical mistakes will be shown during the practical part.



## 7. The CLASSIC 3 STEP technique:

### STEP 3 (palatal veneers)

After the increase of VDO with the posterior restorations, the patients present an anterior open bite. The 3 STEP continues with the 3 STEP where the anterior contacts are re-established by means of composite palatal veneers. In this session, clinical details on how to evaluate the patient's posterior support and occlusal comfort before passing to the next step are provided.



## 8. Protocol for collecting photos for treatment plan

Very few clinicians understand the fundamental importance of documenting their work with photos. Some of them take pictures only to communicate shade to the laboratory technicians, other to show the patient the aesthetic improvement.

Following the 3 STEP technique, there are several, crucial clinical parameters which should be photographed to help with the treatment plan. There could be the risk to take too many pictures, which take time to be seen afterwards. In this part of the course, the participants will be instructed to take only the

necessary pictures and they will be capable by looking at those to identify the critical parameters.



## Advance 3 STEP

1. 3 STEP technique REVIEW
2. The VDO increase
3. MODIFIED 3 STEP technique
4. Pedro Planas' ideas about function, the phase 3
5. Palatal veneers: the analysis of the laboratory work
6. Treatment plan based on the participants'' real cases
7. Posterior teeth
8. Bruxism

### 1.3 STEP technique REVIEW

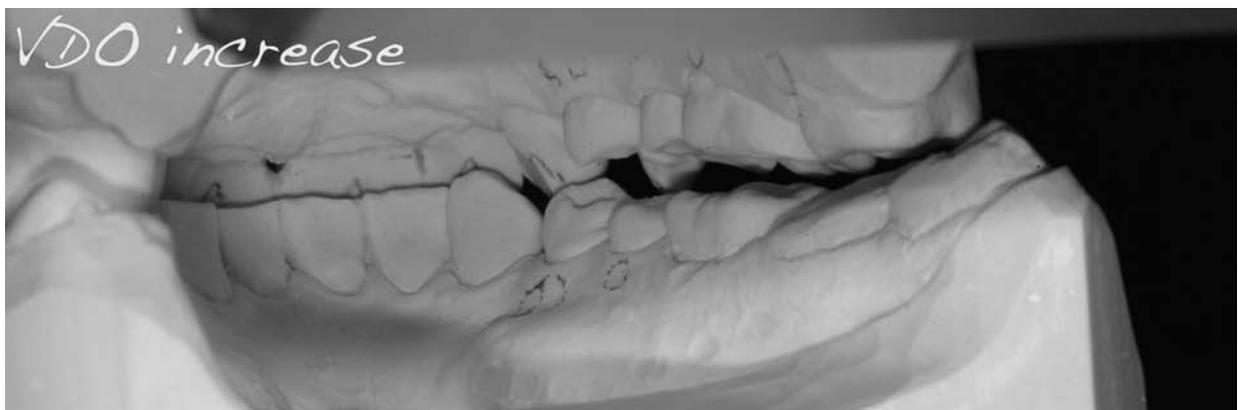
The advance course will start with a review of the CLASSIC 3 STEP. In Dr. Vailati's experience, the participants benefit from listening again the principles of the therapy, since they have reached a new level of knowledge after the first course.

Briefly the laboratory and the clinical steps will be revisited, to start the more advance course all together.



## 2. The VDO increase

The increase of vertical dimension of occlusion represents a challenge for many clinicians, not only because they have to consider more than one tooth to treat, but also because there is a generalized fear for the clinical consequences on the patient. In this part of the course, the increase of VDO will be explained with attention to the different scenarios where clinicians should be more careful with this approach.



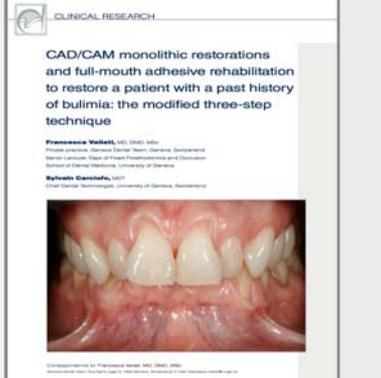
## 3. Modified 3 STEP technique

Due to a raising awareness about dental erosion, several clinicians would like to propose treatments even at the initial stages of the disease. However, when the loss of tooth structure is visible only by an attentive eye and it has not affected the esthetic of the smile, accepting a full-mouth rehabilitation is not common for the affected patients. Reduction of the cost of the therapy, simplification of the clinical steps, and NON-invasive adhesive techniques may promote patient's acceptance.

With the modified 3 STEP technique, initial cases of dental erosion could be treated, skipping some clinical and laboratory steps, to make the therapy faster and less expensive for the patients.

New materials like pressed ceramic restorations or CAD CAM composite restorations are also implemented in this new trend.

Modified



#### 4. Pedro Planas' ideas on function, the Phase 3

In modern time, esthetic has gained more space in the treatment plan than function. However, base a full-mouth rehabilitation only on esthetic requirements could be very risky. Three different phases of treatment will be discussed, based on the different parameters considered important by each clinician. Dentists are in phase 3 when they consider that the mouth's principal function is not smiling, but chewing.

A simplified approach to achieve a rehabilitation, which doesn't only looks good but also function well is derived from the clinical observations of Dr. Pedro Planas. His ideas have been fully integrated in the work of Dr. Vailati to improve the longevity of the restorations.



		
<b>PHASE 1</b>	<b>PHASE 2</b>	<b>PHASE 3</b>
<ul style="list-style-type: none"> <li>INCISAL EDGE POSITION</li> <li>FACIAL VENEERS</li> <li>MOCK-UP AND ESTHETIC</li> <li>SHADE AND SHAPE SELECTION</li> <li>TAKE SMILE PICTURES</li> </ul>	<ul style="list-style-type: none"> <li>INCREASE OF VDD</li> <li>POSTERIOR SUPPORT</li> <li>OCCLUSAL CONTACTS</li> <li>DENTAL MATERIALS CHOICE</li> <li>ARTICULATE MODELS</li> </ul>	<ul style="list-style-type: none"> <li>MANDIBULAR DEVIATION</li> <li>CURVE OF SPEE</li> <li>DEEP BITE</li> <li>LATERAL EXCURSIONS</li> <li>TAKE VIDEO</li> </ul>

## 5. Palatal veneers, the analysis of the laboratory work

This part of the course deals with the difficulties that clinicians and laboratory technicians may find in planning palatal veneers. Few lab techs know how to do these uncommon restorations and in Dr. Vailati's experience more than 80% of what the participants bring to the course should be remake. To help the clinicians to evaluate the work that they receive from the lab, 10 parameters will be considered.

The palatal veneers brought by the participants will be photographed and evaluated together by the group to decide if they are clinically acceptable.





## 6. Treatment plan based on the participants' real cases

In this session, one case of dental wear for each participant will be analysed, by looking at 10 selected clinical photos. The attention will be placed not only on the quality of the photos, but also on what they can show. Advices on how proceed on the case will be given. The participants should not provide pictures of cases already treated. The requested photos should be of the initial status.

These pictures should be sent to Dr. Vailati or the the person in charge to receive them in time to organize a presentation. Late deliver of the photos will not be taken in consideration.



## 7. Posterior teeth

The posterior teeth are always the last teeth to be considered by patients due to their less esthetic value. However, for Dr. Vailati, these teeth are the most complex to be treatment planned, since questions on dental material choice always rise.

In this session, different aspect of how to restore the posterior teeth will be evaluated especially related to the treatment choice for the anterior teeth. In dr. Vailati's experience, one of the most frequent mistakes is to select composite restorations for the posterior teeth and ceramic for the anterior ones.

With time, the posterior support is lost for the faster wear of the posterior quadrants and an excessive anterior tooth contact places at risk the ceramic restorations.



## 8. Bruxism

Clinicians are generally not very keen to start treating patients affected by parafunctional habits (e.g bruxism), since they are afraid of the mechanical failure of the restorations delivered. A common attitude is to wait that more damage occur, to be then obliged to intervene. However, this late intervention is responsible for further degradation of the original dentition with the necessity for rehabilitations more complicated and expensive. In addition when severe loss of tooth structure occurs, mechanical retention is often implemented, making necessary the removal of even more healthy tooth structure. Elective endodontic therapy becomes often a sacrifice to pay for a full-mouth conventional rehabilitation.

However, nowadays these rehabilitations are very difficult to be accepted by patients not only for the biological loss, but also for financial investment. If dentists are not prepared to repair very compromised dentitions, and patients are reluctant to restore their teeth when additional tooth structure should be removed, questions on the time of intervention should rise.

Non-invasive dentistry is becoming more popular among informed patients, who are willing to start earlier rehabilitations.

prevention

