

CONSIDERATIONS ON SENSITIVITY DURING TOOTH WHITENING:

how to minimize or avoid according to
each patient's profile

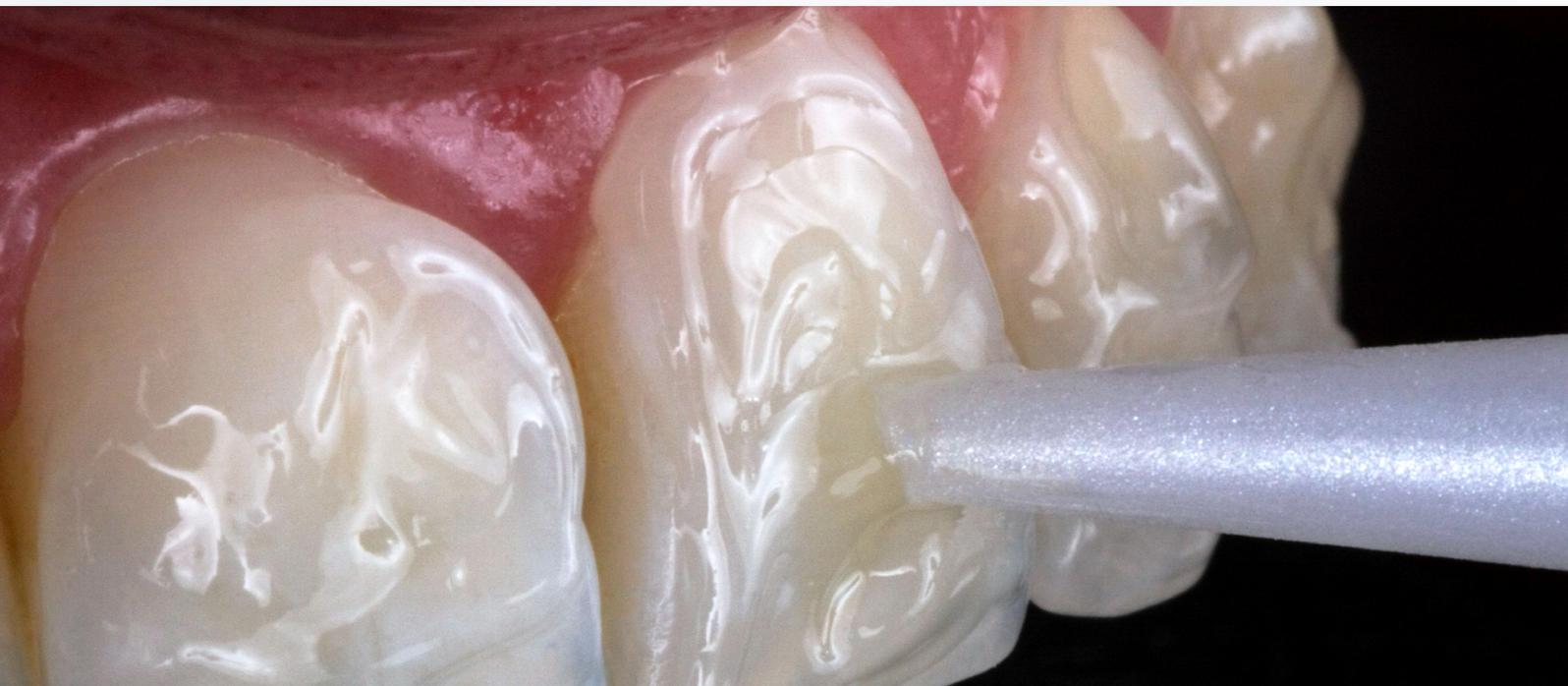
Learn more about the subject and the
whitening techniques indicated according to
the patient's level of sensitivity.



Does your patient want to have their teeth whitened but feels unsure about having tooth sensitivity? If the answer is yes, we emphasize that there are suitable whitening techniques for them, as well as for other types of profiles. In this e-book, we will discuss each one of them. So, first, let's talk a little more about tooth sensitivity.

Dental professionals are aware that tooth sensitivity occurs when the protective enamel of the tooth becomes thinner, or through the occurrence of gum recession, exposing the dentin and thus reducing the protection that the enamel and gum provide to the tooth and root.

However, a point that needs to be clarified is that the patient's sensitivity is not necessarily related to the whitening product: it often comes from a predisposition of the individual. So, for the patient's well-being and also for the best clinical routine of the dentist, we highlight that there are ways to avoid this discomfort. This is also the subject of this eBook.



FIRST, LET'S DISCUSS THE TYPES OF SENSITIVITY. THESE ARE THE 3 MAIN TYPES:

- **Mild and transient sensitivity during the whitening treatment, generated by thermal stimuli caused by the temporary increase in permeability of the dental structure.**

This type of sensitivity is easily tolerated and usually occurs immediately after the whitening session or after removing the tray. It completely disappears, or is significantly reduced, in a period of 30 minutes to 2 hours after hydration and initial remineralization. This type of reaction can occur in some of the appointments. If it is uncomfortable for the patient, the professional can reduce the contraction and/or exposure time of the whitening gel or use Desensibilize KF 0.2% (tray) or Desensibilize KF 2% (office) for 10 minutes. In most patients with this profile, there is no such need, but if necessary, we have these resources. In most of these cases, there is no need to change the whitening treatment protocol.



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- **Pulsatile sensitivity right after treatment not caused by stimuli:**

Symptoms of low or mild hyperemia, usually associated with high concentrations of peroxide (hydrogen and carbamide), but which cease after 12 to 24 hours. Patients who experience this reaction usually have thinner enamel and may show clinical signs of biocorrosion and acidic diet (they

leave enamel more permeable). It is recommended that the dentist use lower concentrations and reduce risk factors prior to whitening (for this reason we highly recommend a rigorous clinical evaluation prior to whitening). A single dose of anti-inflammatory may be prescribed for remission of symptoms (urgent measure) and we strongly suggest changing the protocol / therapy strategy (reducing gel concentration and modulating time of use). After this change in protocol, treatment can continue.

• **Previous dentin hypersensitivity:**

In this case, the patient has a previous condition of hypersensitivity (exaggerated sensitivity of the vital dentin), which requires treatment regardless of whether teeth whitening is performed or not. If this condition is not detected before the whitening treatment, it can be exacerbated during treatment and the cause of a pre-existing condition is attributed to whitening.

It is worth mentioning that the main risk factors for the incidence of previous dentin hypersensitivity are:

- **Parafunction**
- **Previous orthodontic treatment**
- **Acidic diet**
- **Amateur and professional athletes**
- **People with gastric disorders**
- **Enamel cracks**

HOW TO IDENTIFY THE TYPE OF SENSITIVITY

Simple questions about sensitivity on the patient's daily routine (when brushing their teeth or eating something) help the dentist identify the patient's profile of sensitivity quickly and accurately. The following questionnaire is an example of what you can use:

Pregunta		
¿Sensibilidad al agua helada o caliente?	No ()	Sí ()
¿Sensibilidad cuando se cepilla los dientes?	No ()	Sí ()
¿Sensibilidad con algún alimento o bebida?	No ()	Sí ()
¿Cuándo realiza profilaxis dental sus dientes quedan sensibles?	No ()	Sí ()
¿Sus dientes duelen en alguna circunstancia?	No ()	Sí ()

Special attention to sensitivity prior to whitening

In some cases, before the whitening session, it is necessary to perform some procedures with specific products, if the patient has unfavorable clinical signs in terms of sensitivity. These are the signs:

- Enamel cracks
- Vulnerable cervical enamel
- Incisal enamel wear
(visualizing the dentin color)
- Signs of biocorrosion
- Gingival recession
- Presence of NCCL (non-carious cervical lesions)

In the beginning of this e-book, we mentioned the existence of procedures to minimize this discomfort. And here goes the good news: to treat these conditions, FGM offers some desensitizing agents with neural blocker, obliterators/reminerizing which can be associated to Lasertherapy.



Check the protocols for use of each product:

[Desensibilize KF 0.2% e 2%](#)
[Duofluorid XII](#)

The NCCL require restorations (and intervention in its multifactorial etiology), which may be carried out with composite associated to adhesive or glass ionomer restorative material.



The most important aspect of identifying how favorable a profile is, regarding sensitivity, is that the professional can use a technique suitable to that profile, providing the patient with more comfort.

The most recommended whitening gels are the ones with Potassium Nitrate and Sodium Fluoride (Whiteness Perfect and White Class) and Calcium (at-home White Class and in-office Whiteness HP Blue and HP Automixx). In addition, the use of exogenous light sources during the whitening session should be avoided, since current literature does not prove an advantage in the whitening therapy and an association with a higher risk of sensitivity.



Getting to know the patient's profile is essential to indicate the best technique

If your patient can wear the whitening tray with discipline, you may indicate at-home whitening or the combined technique (in which a part of the treatment is done in the office and part of it is done at home, with the whitening tray). **Check out the recommendations for the patient for (supervised) At-Home Whitening with customized tray:**



1. Check if the patient prefers to wear the tray during the days from 3 to 4 hours (carbamide peroxide 10% and 16%).
2. For patients with sensitivity 10% carbamide peroxide (3 to 4 hours/day) or use it every other day, as an alternative.

3. For patients with sensitivity who prefer to wear the tray for a short time (“daily wearing”): 22% Carbamide Peroxide for 60 min or 6% to 10% Hydrogen Peroxide (30 to 90 minutes a day according to the concentration).

For the combined technique, follow these recommendations:

1. Patients with mild sensitivity:

a. In-office session with Whiteness HP Blue or HP Automixx for 40 and 50 minutes respectively (previous use of Desensibilize KF 2% for 10 minutes) and whitening tray with Whiteness Perfect 10% (3 to 4 hours/day) or White Class 4 to 6% according to the standard protocol. Desensibilize KF 0.2% may be used in case of mild discomfort.

2. Patients with no sensitivity:

a. In-office session with Whiteness HP, HP Maxx, HP Blue or HP Automixx (following the respective technique) + tray with Whiteness Perfect (16% or 22%) or White Class (7,5% or 10%) according to preference.

b. Daily Hydrogen Peroxide and overnight wearing with 10% Carbamide Peroxide => anxious patients or who need faster results.

Obs. In both techniques, in case of mild discomfort, you may use Desensibilize KF 0.2% and/or whitening gels with lower concentrations.



Talk to your patient to fully understand their expectations about whitening as well as to identify their profile. This will help you choose the best technique.

a. Anxious patients (want it to be quick): combined technique and/or gels with higher concentration. Obs. Collaborative patients and patients with no sensitivity:

b. Regular (want results without worrying about how fast it comes):

Diverse techniques recommended according to the profile of sensitivity and cooperation.

c. "Patient" (understand that for achieving the expected results, the progress might be slow):

Patients with sensitivity need lower concentrations and for shorter periods of time. They will need to be patient as the progress in their treatment will be slower.

Patients with grayish teeth: (have a slower response to treatment).



1. With sensitivity follow the protocol above

2. With no sensitivity follow the "regular" or "quicker" protocol according to the patient's profile.

Obs. Both profiles need to be **COLLABORATIVE** to succeed.

DIFFERENT TECHNIQUES FOR YOU TO HANDLE ALL PROFILES

The Whiteness line is complete: whitening gels for different techniques which meet all profiles – with or without sensitivity.

The table below shows sensitivity profiles, with the technique recommended.

Sensitivity profile	Technique Recommended
Null or low	Whiteness Perfect 10 or 16% (3 to 4h/day), Whiteness Perfect 22% (1h/day) White Class 7,5 to 10% (30 to 60 min/day) In-office and Combined Technique
Medium	Whiteness Perfect 10% to 16% (3 to 4h/day) White Class 7,5% (1h/day) Combined Technique (use Desensibilize KF 0,2% for 10 min in the tray or Desensibilize KF 2% for 10 min in-office technique)
High	Treat the sensitivity first and then: Whiteness Perfect 10% (3 to 4h/day). Please note: Use Desensibilize KF 0,2% in the tray for 10 min prior to treatment. You can also perform the treatment every other day.

Please note: The wearing / application time and concentrations may be adapted according to the patient's response to the treatment and also according to the desired duration of treatment.

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