

Porcelain veneers

What is a veneer?

A veneer is a purely aesthetic restoration that covers the buccal surface (facing the outside of the mouth) of a tooth and is made of either a composite or porcelain material. More than ever, veneers are the subject of great interest due to the considerable demand from patients who want teeth that are whiter, perfectly aligned and flawless in color, shape and position.

Why a porcelain veneer?

Not all teeth are suitable for direct composite restorations, and these cases should instead be treated with porcelain veneers. Porcelain veneers combine the principles of tissular economy and adhesion to dental tissues to a very high level of aesthetic integration. If a tooth is considerably altered, the composite will not be able to entirely mask the defects; a porcelain veneer will be able to provide a perfect integration that is both aesthetic and functional in terms of color and shape. The excellent clinical performance (both aesthetic and mechanical) of the cemented porcelain veneers has made them the preferred choice in terms of stability and longevity. This dentistry practice is less invasive; it is often conservative in terms of pulpal vitality and more sparing of natural dental tissues. Moreover, by avoiding the use of metal alloys, it is not only biocompatible but the resemblance to natural teeth is a significant asset.

The treatment plan

Any aesthetic treatment must, first and foremost, be part of a global approach by respecting certain imperatives, including biomechanical, biological, functional and, of course, aesthetics. It is fundamental to establish a treatment plan that is adapted to the individual patient. The plan must take into account the following parameters: **the etiology of the coloration, the location of the coloration on the tooth, the occlusion, the oral hygiene, the age of the patient, the gingival health and the position and alignment of the teeth.** Apart from the foregoing, the plan must take into account the preservation of the existing tissues, the aesthetic expectations and the critical evaluation of all the alternative therapeutic solutions. The dentist must make a choice bearing in mind that the possibility of a clinical revision surgery is of paramount importance. He/she must envisage not only the present but the future as well, since definitive treatments do not exist in dentistry. This is why the dentist must consider from the outset what the next intervention will be in the event that a problem occurs on one or several teeth (all-porcelain crown or porcelain-fused-to-metal crown). Once those imperatives have been defined, the dilemma of choosing between the all-composite and the porcelain veneer no longer exists: The two materials are not in conflict and, quite the contrary, may be utilized in harmony in the same patient.

Indications	Contraindications	Advantages	Disadvantages
<ul style="list-style-type: none"> Multiple colored teeth (tetracycline) General defects of the enamel (decalcification) Closing of diastemata (Fig. 1) Malposition and/or rotation of the teeth Abrasion of the incisal tips of the teeth Failure of the composites 	<ul style="list-style-type: none"> Lack of enamel or dental structure Extreme wear of the teeth Extreme dental crowding Parafunctional buccal habits (e.g., bruxism) A patient who wishes to have a reversible treatment 	<ul style="list-style-type: none"> Highly aesthetic results Strength of the cemented porcelain Resistance to stains Resistance to wear Maintenance of healthy gums 	<ul style="list-style-type: none"> High cost Time-consuming (requires two appointments) Preparation of the tooth Fragility of the uncemented porcelain Possibility of wear of the opposite teeth



The surgical procedure

- **The first appointment** (preparation of the teeth, impression and temporary restorations):

Prior to proceeding with the preparation of the teeth, it may be necessary to perform a cleaning or change old restorations. The dentist must also make the choice of color for the new veneer, taking into account, if possible, the color of the natural teeth and the preferences of the patient. After this is the preparation of the teeth. Generally speaking, the removal of a 0.5 mm layer of dental substance is sufficient. An impression of the teeth is then taken, following which the dentist fabricates temporary restorations on the modified teeth. These transitional restorations are important and must be carefully conceived. Not only do they protect the teeth and the gum, but they also play an important role in providing a preview of the permanent restorations by allowing the dentist and the patient to assess the therapeutic and aesthetic elements of the project.

- **The second appointment** (fitting of the porcelain veneers, final cementing, finishing):

After removing the temporary restorations, the dentist proceeds with the final fitting of the porcelain veneers in order to verify their adaptation and their color. If no modification is required, the veneers are cemented using clear resin cement.

Short-term considerations (30 days following the installation)

It is particularly important to use caution during the first 72 hours following the cementing of the veneer as the resin that binds the porcelain to the teeth continues to set during that time. The patient must follow a soft diet, avoid extreme temperature variations in the mouth and refrain from consuming any food or beverage (wine, coffee, etc.) susceptible of causing a discoloration or coloration of the teeth.

Following this three-day period, the patient resumes a normal diet; however, the patient must avoid crunching hard candies, biting into crusty bread or nibbling meat on bones. The patient must undertake normal regular dental hygiene care (toothbrush and dental floss).

Two to four weeks following the installation, a follow-up appointment is required in order to verify the condition of the restorations and allow the patient to provide feedback. Minor adjustments may be made if necessary.

Long-term considerations

Oral hygiene must be optimal in order to avoid any accumulation of plaque at the veneer/tooth junction. Ideally, subsequent appointments must be made with the dentist every three to six months in order to ensure the longevity and aesthetics of the veneers. The life span of the veneers is estimated at five to ten years and, as is the case with any dental restoration, there is a potential for failure of the treatment.

Potential failures

- **Fracture**

It is possible for fissures to occur in the porcelain prior to or during the cementing. These fissures may become more pronounced and appear as cracks once the veneer is installed. It is also possible that a clean break of the porcelain may occur during the installation when the veneer is being cemented.

- **Failure of the cementing**

Complete bonding failure of the veneer is a rare occurrence. If it does occur, the dentist must start over. In the event that this problem occurs more than once, it is suggested that the veneer be replaced with a porcelain crown. When only one piece of the porcelain is broken, the dentist may try to put the pieces back together or fill in the gap with resin compound.

- **Marginal infiltration**

It is possible that an infiltration of fluid from the oral cavity occurs at the periphery of the veneer at the porcelain/tooth junction, creating certain problems such as unsightly coloration, staining or repeated cementing failure.

- **Color**

Generally speaking, the color of the veneer remains stable during the first three years after installation. It is possible that the color may deteriorate with the passage of time. The infiltration of liquids at the periphery of the veneer may cause stains. As well, the color of the resin cement between the porcelain and the tooth may be altered, thus affecting the appearance of the veneer.

Informed consent

Your prognosis is: Good Average Unfavorable

Informed consent is the result of a discussion between the patient and the dentist. This document is provided for information purposes and may be completed or modified during discussions with your dentist. Some dentists may provide adequate information without giving this document to the patient.

Explanations

Informed consent at the time of making a porcelain facing

I understand the advantages and the disadvantages associated with a porcelain veneer. The entire surgical procedure has been explained to me as well as certain considerations relating to diet, hygiene and subsequent appointments, which must be taken into account in both the short and long term. I also understand that failures of the treatment remain possible and that a porcelain veneer does not constitute an end in and of itself.

I have discussed all of the foregoing with my dentist and he/she has answered all of my questions. I hereby consent to the treatment.

Patient's signature

Date

Dentist's signature

Date