



Overall Porcelain Veneers have significant advantages to Composite Veneers despite their increased cost.

### CARE OF YOUR VENEERS

**Daily cleaning** - Flossing and using interdental brushes is mandatory. These aids clean the crevices and keep the plaque out of the minute dents, voids and ledges that may be around your veneers. If the gum gets red, swells, bleeds and/or feels sore, floss and brush more - not less. If the problem does not go away, make an appointment with your dentist. Occasionally there may be a residue of plastic cement that needs to be filed down or polished.

**Removing Stains** - Surface stains can be removed with a more abrasive cleaner. Use one or more of the following: a) smokers toothpaste, b) smokers toothpaste rubbed into the stain with a cotton bud or something similar, c) dry powdered baking soda used as a toothpaste, d) an ink rubber (from stationary suppliers) rubbed onto the stain (sounds crazy, but it works,) Sharpen rubber to a thin edge to get between the teeth if necessary.

**Eating Habits** - Avoid impact and high stress (i.e. absolutely no biting finger nails or cutting string or tape with your front teeth). Do not bite on ice and take extreme care gnawing meat off bones. Cut stone fruit up - sudden impact with a stone can break a veneer. If in doubt - don't bite it.

**Grinding your teeth** - If you grind your teeth it is advisable that you invest in a night guard, as it is nearly inevitable that you will sustain some type of damage to your veneers because of the grinding action of your teeth, and this can be very expensive. Although this is an additional expense it is definitely recommended.

This document has been produced for the international dental profession.  
The English (US) dictionary has been used as the basis for the text.

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# Care of Veneers - Porcelain and Composite Resin

A veneer is a thin “shell” of material that is placed over your natural tooth to correct the size, colour, shape or appearance in some way.

These are often made for cosmetic reasons and usually on anterior, or front teeth, because they greatly improve the appearance of the “smile”.

There are two completely different materials that veneers are made of, Porcelain and Composite. Below there is an explanation of how they are made and the advantages and disadvantages of both.

### COMPOSITE RESIN VENEERS

There are two types of Composite Resin Veneers – Direct and Indirect.

**DIRECT COMPOSITE VENEERS** - Those that are directly formed in the mouth (i.e. they are not sent to a laboratory for construction). The material is a soft, putty-like consistency which is placed onto a tooth which has been primed and bonded. The putty is shaped to look like the front of the tooth and forms a thin coating, approximately the thickness of a fingernail, over the front of the tooth. This changes the colour, shape or texture of the tooth underneath. It is then light cured so it hardens to a rock-like consistency.

#### Advantages

The main advantage of Direct Composite Resin Veneers over Composite Veneers is the fact that they are less expensive and they can be completed in one appointment. This can be an advantage for patients that are in a hurry or find it difficult to get time to go to the dentist or for those who cannot afford porcelain.

#### Disadvantages

It does not usually polish to the same degree as porcelain. Those that do are called microfills but these are a little more prone to chipping and breaking on the edges. If they do break, it is because the stress you have exerted on it (through biting something hard etc) exceeds the strength of the material. It is not because the dentist has done a poor job, but until harder microfills can be developed, there will usually be a fee to repair any breakage.

There are stronger “direct” resins, which are more suitable for covering incisal or biting edges (the high stress areas), but they can only be polished to a satin finish rather than a high gloss and therefore don't match the appearance of your other teeth as well. This can also make them more susceptible to staining from food, drinks and lipstick.

Composite resin restorations are susceptible to staining around the edges or “margins”. This is because when they are made, the dentist needs to feather off at the edges next to the gum and in between the teeth and these edges gradually lose bond strength to the tooth and start ‘leaking’. There are also limits to how far the dentist can polish back and it is impossible to get into the gaps between the teeth with the polishing apparatus. The dentist cannot get a high polish on the resin in between the teeth if it has been cut back for contouring purposes.

**INDIRECT COMPOSITE VENEERS** - A mould of your tooth is made by the dentist and a replica is made of your tooth outside your mouth and reproduced in another material, under laboratory conditions. This veneer is then set or cured under compressed nitrogen and heat for a better cure. The dentist “glues” it over your tooth with special cement. These veneers are more expensive than Direct Composite Veneers and can cost as much as porcelain.

### PORCELAIN VENEERS

**INDIRECT** - These are formed by a laboratory technician and are made by melting porcelain powders in a high temperature furnace. In order for the technician to have a tooth shape to work on, moulds of your teeth have to be made and sent to the laboratory. The technician fabricates

a replica model of your teeth, and constructs the veneers on this. The veneers are thin, (approximately fingernail thickness), translucent and look just like tooth structure. These veneers are also “etched” i.e prepared with a special acid which creates microscopic pores into which the “bonding resin” or glue, engages and locks the veneer securely to your primed and bonded tooth.

#### Advantages

**Firstly**, porcelain is fired in a vacuum furnace, which means there is no air bubbles in the porcelain after it cools and hardens. This is in distinct contrast to composite veneers which often contain microscopic voids and air bubbles which are not immediately apparent, but which fill up with stains (coffee, tea, red wine and some foods) and eventually show up as small black dots or fine lines.

**Secondly**, porcelain veneers have a high surface glaze or gloss, which cannot be removed with tooth brushing and will not stain as easily as composite veneers. Porcelain also has a higher strength (but is not guaranteed against occasional breakage).

**Thirdly**, the surface texture of porcelain can be made to mimic that of enamel, which has very slight ridges, lumps and bumps across the surface of the tooth. Unfortunately, the polishing procedure for composite resins generally results in a fairly flat surface texture and so does not look as natural.

**Lastly**, porcelain does not need polishing in the gap between the teeth because it has a glazed surface. It doesn't stain and keeps on looking good longer than any other material. It is easily cemented in, and because of this there are generally no stains visible on any part of the porcelain veneer.

#### Disadvantages

A small percentage of porcelain veneers will come unstuck and some will break. If you are contemplating having resin or porcelain veneers you should be prepared to accept an occasional replacement or repair.

The biocompatibility of porcelain is fairly well established, whereas composite resins have a complex mixture of chemicals, which generally do not cause problems, but on occasions there have been reports of sensitivity or allergy to the acrylate resins in certain individuals. This is a minor point, and you would have to be very unlucky to have a problem with composite resin, as it is used very widely for fillings.

Porcelain veneers, by virtue of their nature, are very brittle and very stiff, whereas composite tends to flex somewhat more. Porcelain in this regard tends to mimic the original, natural tooth enamel, which is also brittle, stiff and glass-like. It has been postulated that this stiffness can account for a reduction in sensitivity when biting on veneers. There have been reports of post-operative biting sensitivity with some composite resin veneers and this is possibly due to the flexibility putting localized pressure on the tooth structure. The porcelain, being stiffer, tends to spread the biting point load pressures over a wider area, and the pressure on the tooth structure remains below the critical level to cause pain. This area is not yet definitively understood, but it is of some interest, especially if you have to have your veneers replaced because of biting sensitivity.

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