

# Striking aesthetic restoration delights patient

**Richard Brown** describes how he treated a patient's gingival and occlusal canting with a combination of gum contouring and composite veneers

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Direct composite restorations offer a quick, cost-effective and aesthetic treatment for many patients.

The material is hard wearing, easy to maintain and reversible due to minimal tooth preparation.

The restorations may also provide an alternative option for patients preferring to avoid orthodontic alignment and, as shown in this case, help to redesign and improve a smile.

A 36-year-old gentleman came to see me at Clifton Dental Surgery in Bristol with concerns about the appearance of his upper anterior teeth.

He had never been happy with his 'sloping' smile, his diminutive, worn teeth and their uneven colour (Figures 1 and 2).

The patient presented with occlusal canting affecting the position of the upper canine tips and gingival canting caused by altered passive eruption from the UL1 to UL4 (Figure 3).

He also had incisal edge wear and mottling on his teeth (Figures 4 and 5).

## Restorative options

During a one-hour consultation, we explored the option of orthodontic treatment followed by composite edge-bonding to the upper dentition.

We also discussed porcelain veneers, composite bonding only and treatment with and without a gingivectomy.

At the same appointment, photographs, an orthopantomogram (OPG) X-ray, radiographs and an Itero intraoral scan were taken as part of a full examination looking at tooth and periodontal health.

The patient opted for composite veneers and a gingivectomy to balance the crown lengths, preferring a quick, reversible treatment plan with no adjustment or extensive preparation needed to the natural teeth.

The process and limitations of the chosen treatment plan were explained to the patient.

This included the pros and cons of using composite veneers to improve his smile versus orthodontic alignment.

The longevity and maintenance of the composite restorations were also discussed.

Regular flossing, hygienist visits and occasional repolishing were advised to help keep the teeth healthy and looking their best.

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**Figures 1 and 2:** The patient had never been happy with his 'sloping' smile, his diminutive, worn teeth and their uneven colour



**Figure 3:** The patient presented with occlusal and gingival canting

## Gum contouring

At the next appointment, the gingivectomy was carried out under local anaesthetic, from the UR1 to the UL3 using an electrosurgery unit.

Following the gum contouring, bone sounding revealed measurements of more than 3mm in all regions except the UL3, which had no space and therefore would have a high chance of relapse.

Should this occur, crown lengthening surgery involving removal of bone or adaptation of the composite would be discussed with the patient.

The UR1 to UL2 all had good width retained.

After the gingivectomy, one month of healing took place and at the review appointment, the patient's gums were healing well (Figures 6 and 7).

## Strong and durable restorations

The composite veneers were placed about seven to eight weeks after gingival healing.

The patient wanted the whitest of smiles and opted for the Kulzer Venus Pearl Bleach Extra Light (BXL) shade.

The tooth shape was also discussed and finalised with the patient.

The patient was fitted with a latex-free lip and cheek retractor and the teeth were etched in sequence with 35% phosphoric acid etch gel to roughen the enamel surface and then washed.

A total-etch dental adhesive was applied to each tooth and light-cured in accordance with the manufacturer's instructions.





**Figures 4 and 5:** There was also incisal edge wear and mottling on his teeth



**Figures 6 and 7:** One month after the gingivectomy, the patient's gums were healing well



**Figure 8:** Kulzer Venus Pearl Bleach Extra Light (BXL) shade was placed using a freehand technique



**Figure 9:** The finishing and polishing protocol was completed with the Kulzer Venus Supra pre-polishers and high gloss polishers

Eight teeth were bonded, from the UR4 to UL4. Two layers of Kulzer Venus Diamond Flow Baseline were added to the surface of each tooth to function as a stress breaker.

The material is highly opaque and white in colour.

Venus Pearl BXL shade was then placed using a freehand technique on top of the opaque flowable composite using a contouring instrument and a flexible spatula designed for aesthetic modelling (Figure 8).

The newly bonded teeth were protected with

PTFE tape to ensure clear contacts.

Small, serrated strips were also used to ensure no bond or excess composite remained between the teeth.

The contact points were then flossed and checked.

The opacity of Venus Diamond Flow and Venus Pearl BXL helped to achieve a very white look and to mask out the natural underlying mottled appearance of the teeth.

The strength and chip resistance of the material provided the reassurance of a durable result.

The patient had pronounced chipping on his natural teeth, so a strong material was key.

### Long-lasting lustre

Once cured, the composite was cut back with an air rotor handpiece.

Secondary anatomy was defined using coarse, medium, fine, and then extra-fine Sof-Lex discs.

The finishing and polishing protocol was completed with the Kulzer Venus Supra pre-polishers and high gloss polishers for a predictable and long-lasting lustre (Figure 9).

This is particularly important with very white shades as they can take on a matte effect over time.

A night guard was fabricated to protect the patient's new smile from bruxism and chipping and for use as an upper whitening tray to maintain the new teeth shade.

### Quick, aesthetic result

A successful, aesthetic, medium to long-term result was achieved using a minimally invasive approach.

We avoided having to prepare the teeth to place porcelain veneers, which arguably would have been longer lasting.

However, the lack of invasive alteration to the tooth surface means that the patient continues to have all treatment options open to him. ▶

**The striking result has been noticed by the patient's family and friends, many of whom have been referred to me for treatment**





**Figures 10 and 11:** The composite veneers and gingivectomy worked synergistically to improve his smile



**Figure 12:** The patient was delighted with the outcome

The challenges with this case were associated with concealing the irregularity of the underlying teeth and masking the junction between tooth structure and restorative material when adding length.

It took a little while for the patient to become accustomed to the new shape and colour of his teeth, although he was comfortable with their appearance

at the review appointment.

He was happy to have corrected the occlusal and gingival canting and understood the benefits of the gingivectomy.

He also recognised how the composite veneers and gum contouring worked synergistically to improve his smile (Figures 10 and 11).

The patient was delighted with the outcome

and the time frame of his transformation (Figure 12).

Following the initial consultation, treatment was completed during two visits over two months.

The high polish, extremely bright colour and strong, striking result has been noticed by the patient's family and friends, many of whom have been referred to me for treatment. **D**

## Venus® Pearl

"...delivers consistently superior results..."



**“** The material chosen for the edge bonding was Kulzer Venus Pearl B1 shade. Venus Pearl delivers consistently superior results, particularly when building up incisal edges where strength is important.

It is easy to handle – not too fluid and not too viscous – and does not slump. The composite also polishes to a very high lustre to achieve an outstanding aesthetic effect.

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