

# Direct composite bonding post orthodontic treatment

**Dr Sanj Sethi**, discusses a multi-disciplinary approach to restore the tired appearance of their teeth and narrow the gaps between their upper incisors



**Sanjay Sethi** qualified from Guy's Hospital in 1994 and started the Square Mile Dental Centre in January 2000, with a dental ethos of 'Combining science with art'. He has lectured extensively on implants and cosmetic treatment both nationally and internationally and continues to teach other dentists. Between 2014-2016 he served as the president of the British Academy of Aesthetic Dentistry, and he is also an active member of the European Academy Of Aesthetic Dentistry.

This patient was a multi-disciplinary case whereby the teeth were aligned to allow for the correct occlusion and incisal relationship given the skeletal arch form.

The main issue was the size of the upper incisors were narrower than the arch form that was required to create a positive overjet.

Hence the teeth were positioned with good communication with orthodontist Dr Kaval Patel.

## Creating a natural smile

The patient's main concerns were the gaps between the upper incisors and the tired appearance of the teeth.

She was keen to have a natural smile and did not want any teeth whitening prior to the planned restorative treatment.

Given the spaces and symmetry required, freehand composite even with stents and guides would be a more complicated procedure to get absolute control of form, proportions and gingival architecture.



**Figures 1-5:** Initial presentation

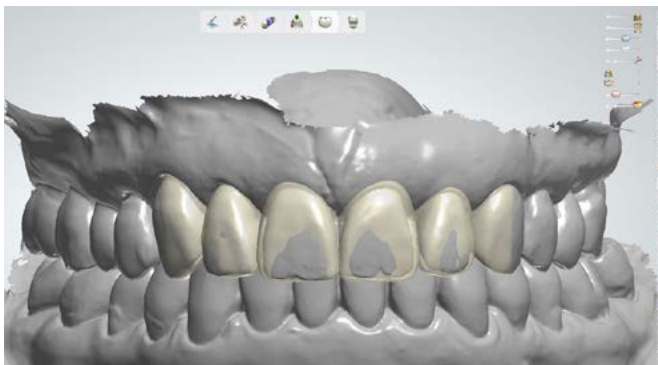
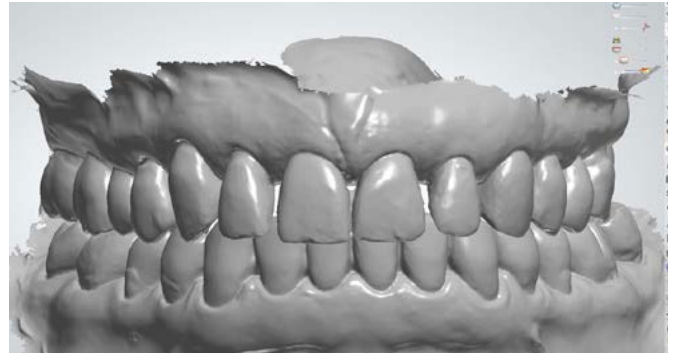


### Laboratory-made veneers

Our aim was to keep treatment as conservative as possible, as the patient's request, and create harmony and an aesthetic outcome.

The original plan was a combination of minimal to no preparation ceramic veneers as per the digital preview.

However, nearer the time of the initial appointment, the patient was very concerned at any tooth surface reduction and opted for no preparation and direct composite bonding and understood the technical issues and limitations when compared to laboratory-made prostheses.



**Figures 6-12:** Lab work to achieve the patient's smile

After discussions with the patient, it was agreed that her decision was respected and she was clear that the absolute symmetry and proportions compared to laboratory-made veneers would be extremely challenging. She understood that this may not result in the most ideal aesthetic outcome as planned on the digital preview.



The patient was happy with the final outcome and felt much more confident about her smile

**Figures 13-15:** Treatment

## Treatment

On the day of direct composite restorations, the upper canine to canine and a small buccal cervical composite on the upper right first premolar were all restored.

Each tooth was restored individually and finished after checking the dimensions with callipers prior to polishing and then moving to the next tooth.

Silicone putty indices were used for incisal edge position and Bioclear matrices (Clarke Dental) were used for the interproximal form and especially the emergence profile.

A total etch 3 step bonding system, Optibond FL Primer and bond (Kerr) was followed by a base layer of Venus Diamond Flow and nanohybrid composite. This was complemented with a facial stratified layering technique using Renamel microfill composite (Cosmodent) and composite tints (Kerr Kolor plus).

The composites were carefully finished on the day of placement and the patient was aware that the gingivae needed time to mature and adapt to the new form to create papillae.



**Figures 16-17:** Initial smile versus final presentation

### **Final result**

The final view is just one month later and no further polishing or refinement was required.

The patient was happy with the final outcome and felt much more confident about her smile.