

New Aura in Aesthetic Dentistry



The Philosophy behind the Aura Composite: Aesthetic layering

To understand the philosophy of developing such a material, it is important to truly understand what actually determines the colour of a tooth. The colour is determined by several factors 95% of the colour is determined by the dentine and only 5% by the enamel so not surprisingly the main determinant of the colour of a composite restoration will be related to the shade of the bulk of the material forming the restoration, often referred to as the dentine shades. The outer enamel shades as in "mother nature" are translucent. Many of the systems currently available are arguably over complicated with too many different shade combinations. Combining multiple shades whether by multiple layering of different shades or kneading more than one shade together is very difficult to do and in any case becomes impractical in a normal working situation. The practitioner may have liked to produce a "Van Gogh" aesthetic masterpiece but usually only has the time to craft a rapidly produced restoration.

Dentine and Enamel Shades

The Aura system for reasons of simplicity has only 8 dentine shades (Db, DC1, DC2, DC3, DC4, DC5, DC6, DC7) and 3 enamel shades (E1, E2, E3). One might reasonably expect there to be 24 different combinations but thankfully only 10 are of clinical interest. Practitioners are more than experienced in observing the lighter and whiter teeth of the younger patient with translucent incisal edges and the yellower and darker shades of the older patient. Consequently when choosing shades for teeth for a directly produced restoration it is often less of a discussion of chroma, hues and opalescence but a decision taken almost subliminally. Good lighting is essential for choosing shades and a need to look at colours both under natural and artificial conditions, goes without saying but the use of gadgets such as spectro-photometers really have little place when preparing direct composite restorations. Therefore, with a single word answer, is Aura revolutionary in redefining the goal posts for aesthetic dentistry? "NO!" "...unequivocally... nor does it claim to be..."

Shade selection

Selecting the shade of the restoration should be undertaken prior to the placement of the restoration. It is best to do a trial mock up and cure this onto the tooth prior to commencing the restoration. There are multiple options for choosing the shades and a few trial mock ups are the best. It is best to show the patient the options for the layering and involve the patient in the decision for the final shade. As the layering technique involves a build up from darkest to lightest shade, using multiple shades will bring the restoration to life. However if the restoration is too thin for a large build up the multipurpose MC shade can be selected.

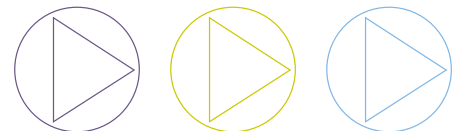


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Benefits of Aura

Then what are the benefits of the Aura system over much of the competition? Though multiple layers of different colours can be used to mimic nature as near as possible for the most part, it will be used in simple 2 layer combinations. Furthermore, whilst the majority of dentists are using single shade composites for restorations, they will layer them in a few increments because of curing considerations, and so it should not be very difficult to alter behaviour and place the dentine shades for the deeper layers and the enamel shades for the outermost layers, especially if there are enhanced aesthetic results and happier patients!

Turn over for Case Study



Diagnosis and Treatment Plan

Young female patient with damage to incisal edges due to grinding. Her teeth were first whitened before restoring with a resin composite (Aura, SDI Ltd.). A Michigan bite splint was then made for the patient to prevent further fracturing of the incisal edges of patient's teeth.



Fig 1. Before whitening.



Fig 2. After tooth whitening showing rough incisal edges.



Fig 3. Aura DB and E1 were used to restore incisal edges. A flat plastic was used to contour and shape.



Fig 4a. Restorations were polished using discs.



Fig 4b. Restorations were polished using discs.



Fig 5. Restored teeth.

References

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