

# CLASS 11 COSMETIC RESTORATION WITH AMALGAM REPLACEMENT



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## INTRODUCTION

In restorative dentistry, it is very difficult to replace amalgam restorations and then obtain an aesthetic and functional result. This is due to the fact that amalgam restorations produce discolourations, release different oxides and modify pulp chamber anatomy.

Today, the aesthetic demands of our patients are increasingly high and we need materials and protocols which allow us to meet their expectations.

This case report shows an aesthetic class II with replacement of amalgam achieved using Aura Easy composite from SDI.

- The tooth under examination (1.6) showed an irreversible pulpitis under the amalgam restoration.
- Initially the tooth was submitted to root canal treatment, which was completed in only one session.
- After isolation Aura Easy was used to create mesial surface of the tooth.
- The cavity obtained was then restored with Aura Easy A2 shade and polished in different steps using intercuspatal rubber dam.
- Aura Easy allowed us to realize a perfect restoration with high aesthetic properties, a mimetic colour and a perfect occlusal performance.



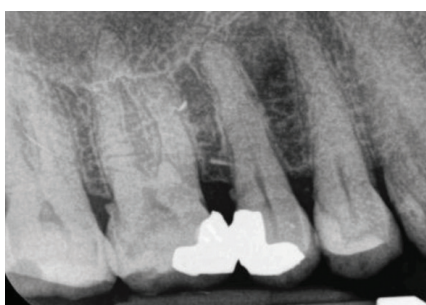
**4**  
SHADES

**SIMPLE,  
BRILLIANT  
RESTORATIONS,  
EVERY TIME!**

# CASE STUDY

A 53-year-old patient came to us complaining of compression pain in the area of the upper right first molar [1.6].

An objective examination and periapical X-ray (Carestream CS 7200 phosphor system) [fig.1] showed the presence of an inadequate amalgam restoration, undermined by underlying infiltrating caries.



**Fig 1.** Initial periapical X-ray.

Root canal treatment was performed on the tooth in question and a Class II restoration was subsequently performed using Aura Easy (SDI Limited).

## DIAGNOSIS AND TREATMENT

The tooth being examined showed signs of infiltration at the amalgam/residual wall interface [fig.2].



**Fig 2.** Initial situation.

The amalgam restoration was removed and the cavity was cleaned with a truncated cone-shaped diamond bur (Intensive 830L - 014) [fig. 3].

The pulp chamber was exposed, making it necessary to perform root canal treatment (ProTaper Next system) with obturation using the warm vertical condensation technique (Elements Free Kerr) [fig.4].

A sectional matrix (Polydentia) and a wooden wedge were inserted at the level of the mesial surface of the tooth and a matrix ring (Quickmat Polydentia) was applied to set the Class II correctly [fig.5].



**Fig 3.** Amalgam removal and cavity preparation.



**Fig 4.** Endodontic treatment and closure.



**Fig 5.** Sectional matrix and ring [Quickmat Polydentia].



**Fig 6.** Mesial wall construction.

The cavity was etched for 15 seconds with 37% orthophosphoric acid [Super Etch, SDI Limited] through active handling. The cavity was then washed for 15 seconds.

A universal adhesive [Zipbond, SDI Limited] was then applied using a microbrush by rubbing the cavity for 10 seconds and curing with Radi Plus for 10 seconds.

A thin layer of Aura Easy Flow [A2 shade, SDI Limited] was then applied to the cavity at the border with the sectional matrix and without curing the mesial wall was stratified with incremental applications of Aura easy A2. Curing resulted in a Class I cavity [fig.6].

Then Aura easy A2 was applied, redefining the dynamic occlusion areas of the tooth and restoring the mesial cusps [fig.7].

At the end of the stratification process a final curing was performed, isolating the composite with a gel layer.



Fig 7. Initial situation.



Fig 8. Amalgam removal and cavity preparation.



Fig 8. Finishing and polishing the occlusal surface.

The finishing was carried out with intercuspals rubber dams [Dentsply Sirona] and a stain [Brown 3M] was applied inside the secondary grooves [fig.8].

High-performance cosmetic result with extreme integration of the composite material with the enamel/dentine structure.

The intraoral X-ray performed at the end of the treatment shows the perfect integration of Aura easy with the dental tissue [fig.9].

## CONCLUSION

The replacement of an amalgam restoration is one of the most difficult treatments in restorative dentistry.

With the new Aura Easy composite, restorations are perfectly integrated and aesthetically performed. This composite has excellent polishing characteristics, it is easy to use and needs few steps to obtain a perfect restoration.

Aura Easy simplifies our procedures, it's consistency makes it simple to sculpt and pack.

Four colours are able to mimic the whole chromatic VITA scale, minimising our work and make our practice procedures easy.

