

# Reshaping the anatomy of anterior teeth with direct composites

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## Introduction

Reshaping the anatomy of anterior teeth with direct composites is a transformative, minimally invasive technique that addresses both aesthetic and functional concerns. This approach is particularly valuable for closing diastemas and enhancing the smile after orthodontic treatment, where many patients remain dissatisfied with the final shape, size, or proportions of their teeth despite proper alignment. Using modern adhesive systems and a variety of innovative matrices, dentists can sculpt direct composites to precisely mimic the natural anatomy, texture, and translucency of teeth. These advancements allow for seamless integration and customized results, giving patients the confidence of a balanced, harmonious smile.



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### 1. Initial view

A young patient has undergone orthodontic alignment of the dentition.



### 2. After removal of orthodontic appliance

After removal of the orthodontic appliance and polishing of the teeth, there are residual diastemas present at the distal of both upper lateral incisors. Lateral incisors are slightly conical in shape and are not harmonious with the centrals.



To achieve an aesthetic improvement of the smile, the diastemas will be closed, and the laterals reshaped.



### 3. Scanning of upper jaw & digital wax-up

Due to the patient's young age a direct approach is preferable. The upper jaw is scanned with an intraoral scanner and a digital wax-up is created. The model with the wax-up is printed and used for the creation of a silicone key, that will serve as a guide in creating the palatal shells.



### 4. Isolation of upper teeth

The upper teeth are isolated using rubber dam and the silicone key is fitted to the palatal side of the upper anterior region.

*TIP! Ensure the stability of the silicone key by including at least one tooth to the distal on both sides of the teeth being restored.*



### 5. Creation of palatal shell

The palatal shell of the tooth 22 is created.

*TIP! Create the palatal shell by applying a thin layer of composite directly onto the silicon key and then fit the silicon key to the teeth. Double-check the correct position of the silicone key before lightcuring.*



### 6. Restoration of buccal and incisal parts

The buccal and incisal parts of the tooth 22 are restored with direct application of G-aenial A'CHORD.



### 7. Staining

Some staining was placed to mimic the natural neighbouring teeth characteristics.



### 8. Clinical situation after restoration

The clinical situation after the restoration of the laterals. The polishing was done using the polishing protocol for anterior composite restorations.

*TIP! Refer to chapter "Finishing and polishing protocol of anterior composite restorations" for the detailed polishing protocol of anterior composite restorations*



### 9. The smile

The patient's smile after the removal of the rubber dam and rehydration of the teeth. The restorations on the laterals are inconspicuous. The smile harmony is improved.