

# Case Study

## About the Case

The patient had a post-orthodontic anterior diastema mesial to the right lateral incisor.



**Initial situation:**

The patient presented with an anterior diastema.

## Challenge:

Close the diastema and increase the size of the lateral incisor while maintaining proper contour and esthetics.

### Step 1

#### Isolation.

Isolation with a rubber dam pushed the gingiva apically to provide access to the cervical area so a proper anatomical contour and emergence profile could be created



### **Step 2**

#### **Placement of mylar strip.**

A mylar strip was used to protect the adjacent tooth from etching. The mesial proximal, facial and lingual areas were etched with 3M™ Scotchbond™ Universal Etchant.



### **Step 3**

#### **Application of adhesive.**

To prevent contact of the adhesive with the adjacent tooth, a second mylar strip was placed. Adhesive was applied, scrubbed for 20 seconds, gently air dried for 5 seconds, and light cured with an LED curing light for 10 seconds.



#### **Step 4**

##### **Placement of restorative.**

3M™ Filtek™ Supreme Ultra Universal Restorative, shade XWE, was placed in two increments, each light cured for 10 seconds.



#### **Step 5**

##### **Placement of second increment.**

The first increment was placed over the facial aspect of tooth and feathered toward the middle to improve blending. The second increment was placed to fill the diastema's palatal aspect. A mylar strip helped close the diastema completely.



### **Step 6**

#### **Establishing length.**

To begin the contouring and polishing process, the proper length was established with a 3M™ Sof-Lex™ XT Contouring Disc. Then an incisal-facial line angle was formed. Finally, the mesio-facial line angle, and the incisal, facial and palatal embrasures, were defined.



### **Step 7**

#### **Surface characterization.**

Once contoured, the surface characterization of the adjacent teeth was copied onto the restoration using a fine diamond (not shown).



### **Step 8**

#### **Pre-polishing.**

Finishing and polishing was completed in two steps. First, a 3M™ Sof-Lex™ Pre-Polishing Spiral was used to remove scratches and prepare the composite for final polish.



### **Step 9**

#### **Polishing.**

Next, a 3M™ Sof-Lex™ Diamond Polishing Spiral was used to impart a smooth, high-gloss polish. Lastly, the proximal surface was polished with 3M™ Sof-Lex™ Finishing and Polishing Strips.



### **Step 10**

#### **Finishing.**

Upon finishing the restoration, the patient was very satisfied with the ideal contour, surface smoothness and life-like luster.



Before



After

The patient returned one week later for a final post-operative appointment and was very satisfied with the final restoration.