

## Lip-Generated Esthetic Treatment Planning

### 12 Steps To Creating Optimal Smile Esthetics

#### *Anatomy of a Smile*

Three Separate but Interrelated Components:

- i. Lips
- ii. Gingiva
- iii. Teeth

The Essential  
Element in  
*Smile Design*



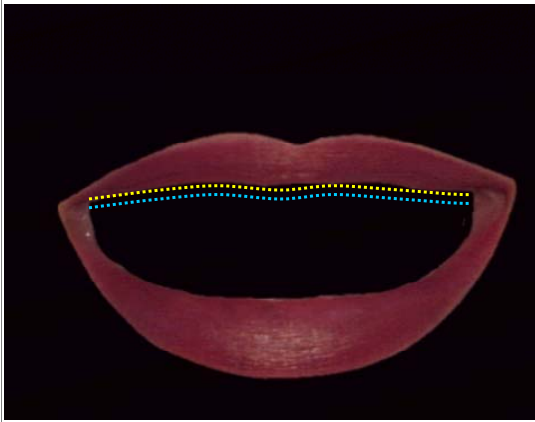
Orchestrate  
Labial  
Gingival  
Harmony

***Lip / Gingival Phase***

**Step I**

Establish gingival heights of contour parallel to the drape of upper lip --- ***Horizontal parallelism.***

NOTES



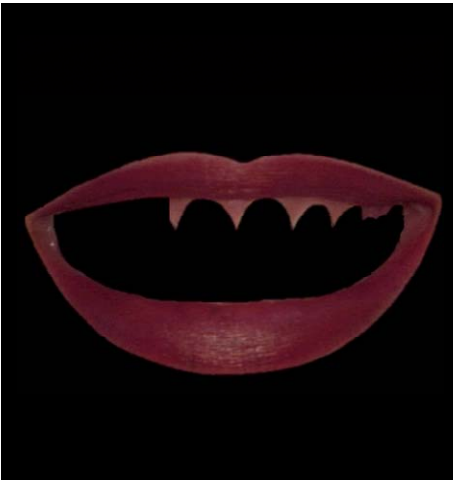
***Gingival Phase***

**Step II**

Develop midline gingival symmetry (maxillary central incisors).

- #8 + #9 Restorative Recipient Site

NOTES



**Step III**

Promote lateral radiating harmony and continuity of form – right side then left side



**Step IV**

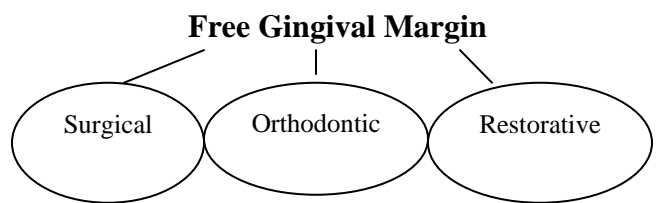
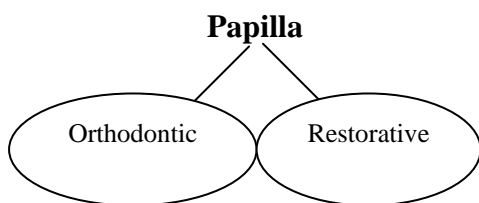
Evaluate soft-tissue profiles of each individual restorative recipient site.

***Restorative Recipient Site – Two Components***

Free  
Gingival  
Papilla -- Margin -- Papilla  
Curvature



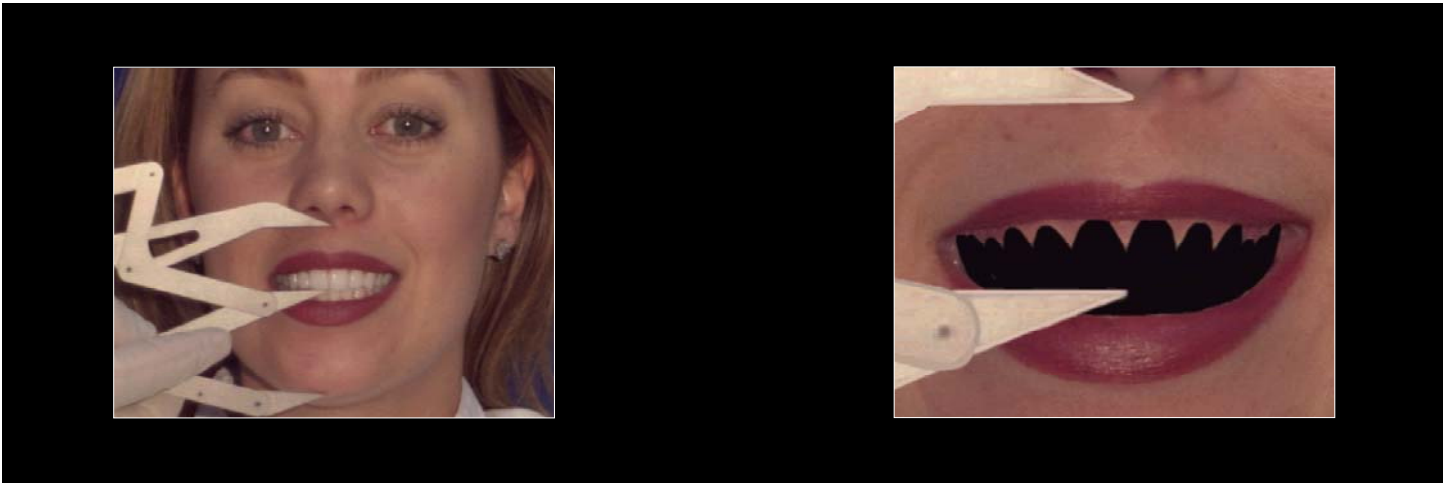
***Treatment Options***



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### Step V

Establish maxillary right central incisor (#8) edge position – 3-dimensionally (vertical, sagittal, and frontal planes)



Vertical Position Frontal Plane

**Dependent on:**

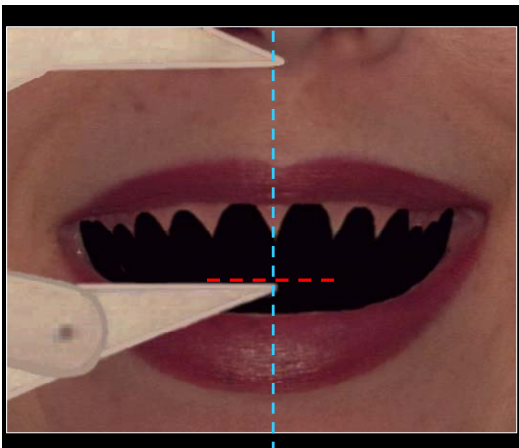
- Chin : Nose Golden Proportion
- Incisal show at rest
- < 3mm gingival display during smiling
- Intra tooth Golden Proportion
- Gingival show at widest smile
- Lip to tooth length exposed at widest smile

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### Step VI – Incisal Edge position frontal plane

Develop dental midline perpendicular to incisal edge line and coincident with facial midline.

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## *Tooth Restorative Phase*

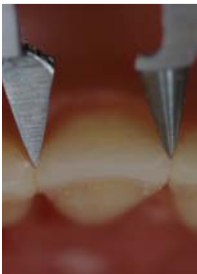
### **Step VII**

Develop **intratooth** silhouette form of maxillary right central incisor (#8) using Golden Proportion (1:1.6) as a guide.

(Esthetic Range 1:1.3 to 1:1.9)

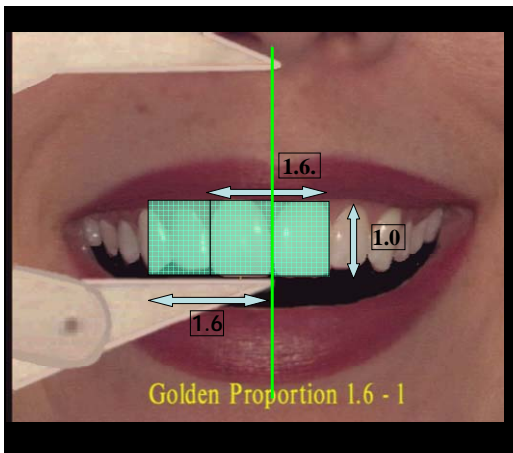
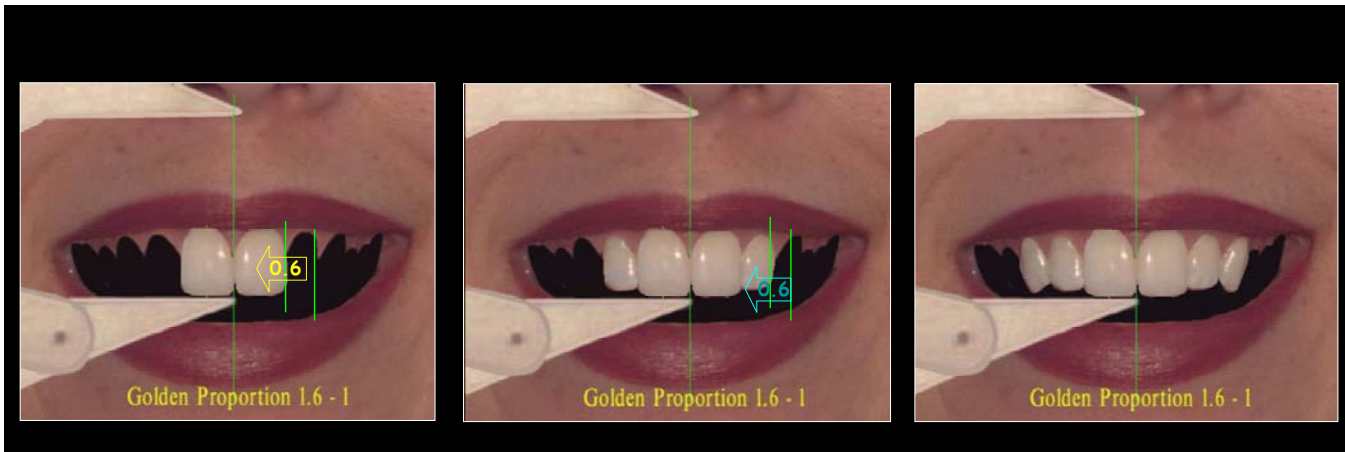


Using the dental dial caliper



### Step VIII

Develop relative intertooth width of the laterals, canines, etc. -- using the 1.6:1 ratio *Golden Proportion* as a guide.

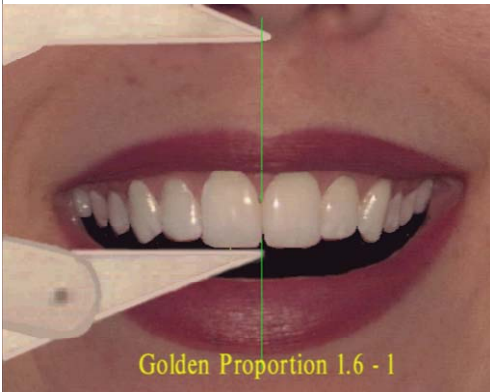


Alternative use of Golden Proportion –  
The Dimensions of the two Centrals  
are the same as that of the Lateral  
and mesial visible ½ of the Canine

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**Step IX**

Sequentially extend posterior teeth laterally into vestibule as determined by midline-to-commissure Golden Proportion – fill the vestibule bilaterally.



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**Step X**

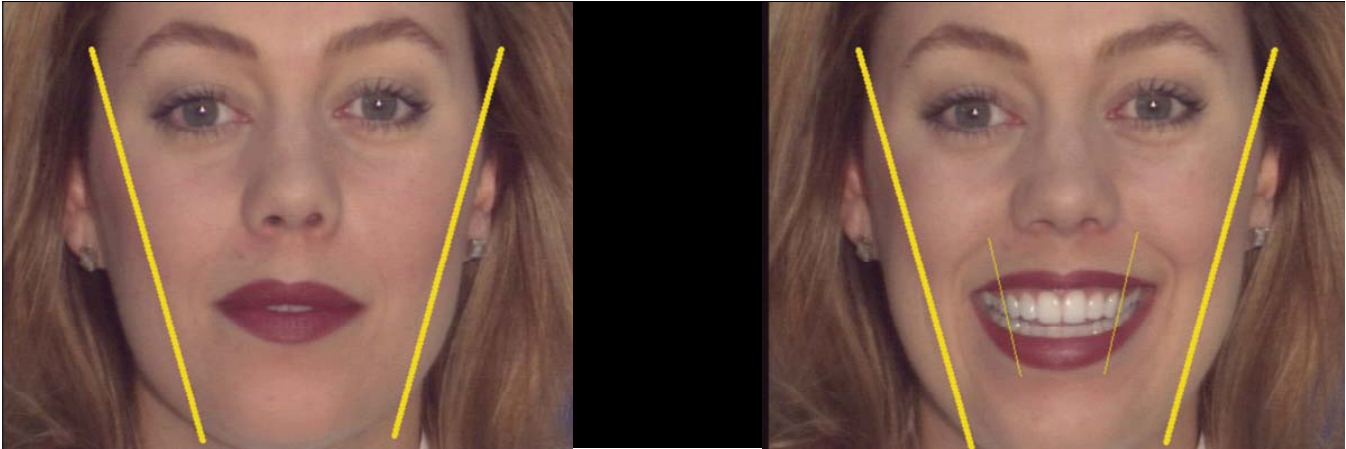
- 1) Ensure that maxillary incisal edges and cusptips are parallel to the form of the lower lip.
- 2) Ensure that mandibular incisal edge line parallels the lower lip and the maxillary incisal edges.
- 3) Develop balance within the negative space.



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**Step XI**

Parallel axial tooth inclination to specific facial form---zygomatic arch to chin---*Vertical parallelism*.





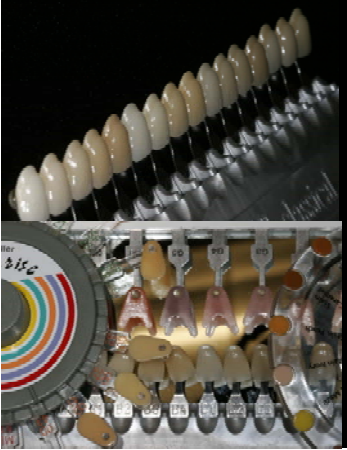
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**Step XII**

Decide on restorative tooth traits, color, shape and texture.

Shade Guide

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Texture – Degree 1 – 2 – 3



## Treatment of the “Gummy” Smile

**Two Possible Causes:**

- i. Periodontal – Altered Passive Eruption type 1-A and B
- ii. Anatomical/Skeletal – Vertical Maxillary Excess

**Diagnosis:**

- i. Evaluate relative size of central incisor – width to length ratio.
- ii. Ascertain biologic width – Distance from free gingival margin to osseus.
- iii. Evaluate gingival display below inferior border of upper lip.
- iv. Evaluate incisal edge display at rest.
- v. Evaluate vertical distance the lip moves from rest to grimace (widest smile) –is this dimension much greater than the lengths of the central incisor?

<i>Condition</i>	<i>Treatment Options</i>
<b>Altered passive eruption type 1-A</b> <i>(gingival sulcus probing exceeds normal)</i>	Gingivectomy
<b>Altered passive eruption type 1-B</b> <i>(normal probing bone at C.E.J.)</i>	Flap with osseous resection – twin stage
<b>Vertical maxillary excess – degree 1</b> (2-4 mm)	<ul style="list-style-type: none"> <li>• Orthodontics and periodontics</li> <li>• Periodontal surgery – Biphasic crown lengthening flap with osseous-resection</li> </ul>
<b>Vertical maxillary excess – degree 2</b> (4-8 mm)	<ul style="list-style-type: none"> <li>• Periodontal surgery and restorative dentistry</li> <li>• Orthognathic surgery</li> </ul>
<b>Vertical maxillary excess – degree 3</b> (>8mm)	<ul style="list-style-type: none"> <li>• Orthognathic surgery</li> <li>• Periodontal surgery</li> <li>• Restorative dentistry where necessary</li> </ul>

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**Notes:**