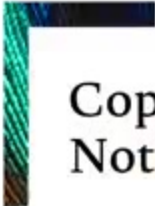


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Shining a Light on Anterior Aesthetics and Shade Selection

Dr Amit Gurbuxani

MRACDS(DPH), MDPPH, BDS_c, FADI, FICD, FPFA

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Shining a Light on Anterior Aesthetics and Shade Selection

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The background image shows two hands cupped together, palms facing each other. A vibrant rainbow light spectrum is projected across the palms, with red at the bottom, transitioning through orange, yellow, green, and blue to purple at the top. The hands are set against a dark, teal-colored background.

Shining a Light on Anterior Aesthetics and Shade Selection

Dr Amit Gurbuxani



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DENT5311

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Mina Diodarevic
Unit Coordinator

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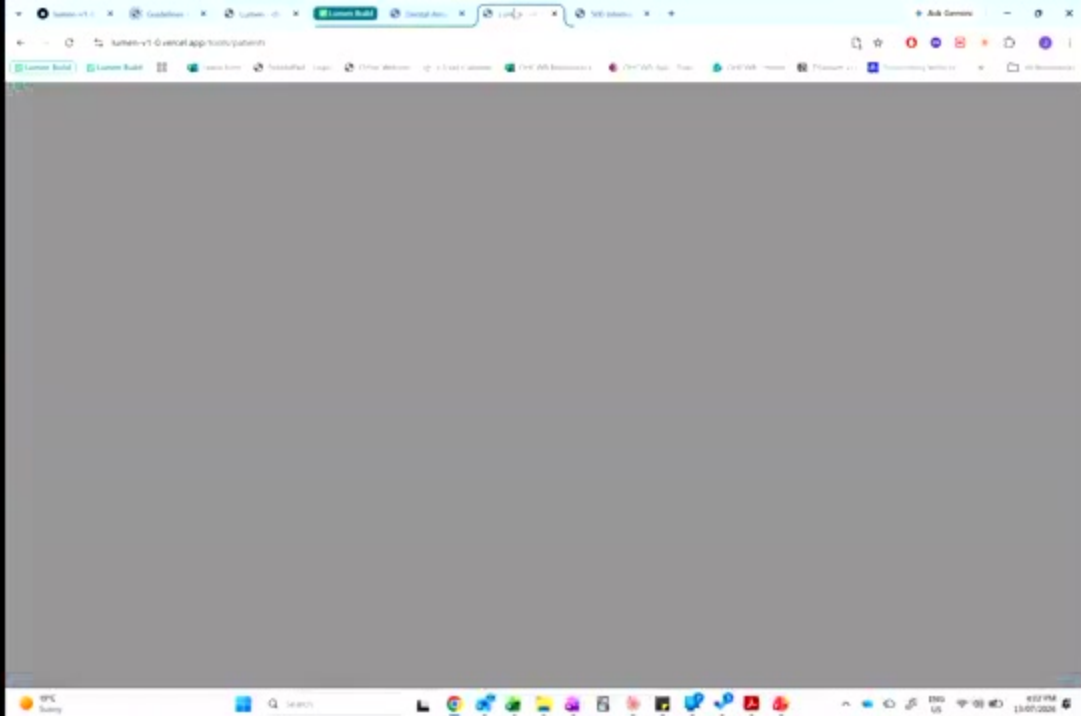
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Shining a Light on Anterior Aesthetics and Shade Selection

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MRACDS(DPH), MDP, PH, BDSc, FADI, FICD, FPFA

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The background image shows two hands cupped together, palms facing each other. They are illuminated with vibrant, multi-colored light projections, primarily in shades of blue, green, and yellow, creating a glowing effect. The background is a soft, out-of-focus teal or light blue.

Shining a Light on Anterior Aesthetics and Shade Selection

Dr Amit Gurbuxani

Table 1. Components of Smile Analysis and Esthetic Design.

Levels of Esthetics	Smile Analysis Components
Facial esthetics	total facial form and balance
Oral-facial esthetics	maxillo-mandibular relationship to the face and the dental midline to the face pertaining to the teeth, mouth, gums
Oral esthetics	labio, dento, gingival; the relationships of the lips to the arches, gingiva, and teeth
Dentogingival esthetics	the relationship of the gingiva to the teeth collectively and individually
Dental esthetics	macro and micro dental esthetics, both inter- and intra-tooth

Brachycephalic, dolichocephalic and mesocephalic: Is it appropriate to describe the face using skull patterns?

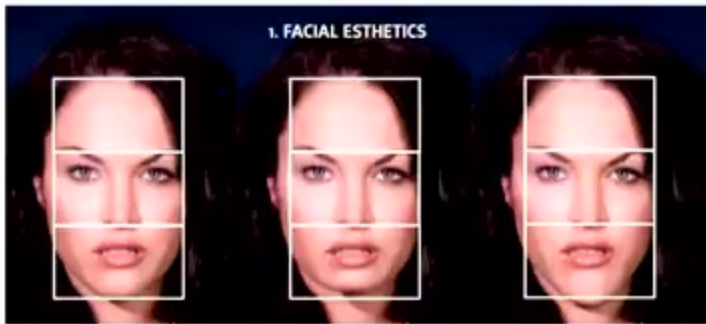


Figure 1: Three altered views of the same patient enable analysis of what can be accomplished to enhance facial and smile esthetics.

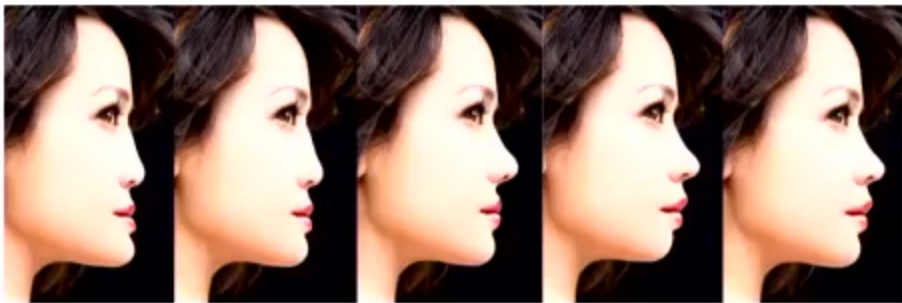
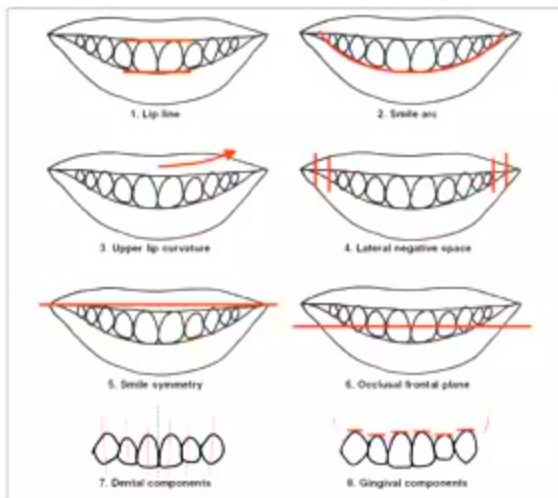


Figure 2: Sagittal views best demonstrate which specialists should be involved in treatment, whether orthodontists or maxillofacial surgeons, to best esthetically alter the facial esthetics.



OVERVIEW *The Eight Components of a Balanced Smile*
 ROY SABRI, DDS, MS
 JOURNAL OF CLINICAL ORTHODONTICS



1. Mid Line

A close-up photograph of Tom Cruise smiling. His teeth are visible, and there is a noticeable gap between the center incisors, which is the midline shift mentioned in the text. The text "FIXING THE MIDLINE SHIFT..." is overlaid in orange at the top left, and "MISSION IMPOSSIBLE!" is overlaid in orange at the bottom left.

**FIXING THE
MIDLINE SHIFT...**

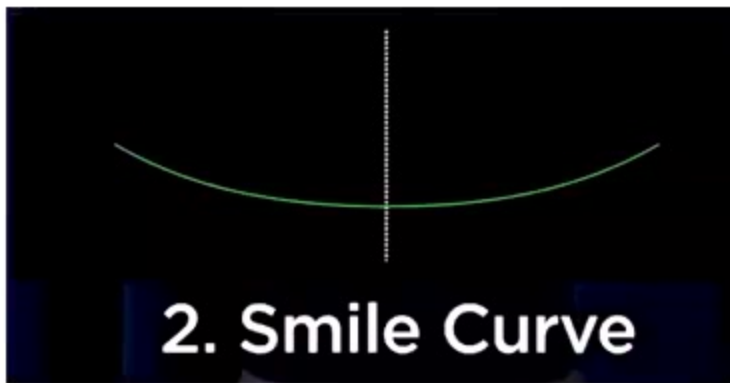
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-
- Upto 4 mm midline shift barely anyone notices.
 - Even though its one of the first things discussed in Smile evaluation.

Smile Analysis

EA McLaren. L Culp - J Cosmet Dent, 2013 – Volume 29





2. Smile Curve



Smile Curve

- **Smile line** refers to an imaginary line along the incisal edges of the maxillary anterior teeth which should mimic the curvature of the superior border of the lower lip while smiling. Another frame of reference for the smile line suggests that the centrals should appear slightly longer or, at least, not any shorter than the canines along the incisal plane. This approach is particularly useful in cases of lip symmetry or extreme lip curvature during smile formation.
- **Reverse smile line** or inverse smile line occurs when the centrals appear shorter than the canines along the incisal plane.
- **Lip line** should not be confused with the smile line. It refers to the position of the inferior border of the upper lip during smile formation and thereby determines the display of tooth or gingiva at this hard and soft tissue interface. Under ideal conditions, the gingival margin and the lip line should be congruent or there can be a 1-2 mm display of the gingival tissue. Showing 3-4 mm or more of the gingiva (gummy smile) often requires cosmetic periodontal recontouring to achieve an ideal result.



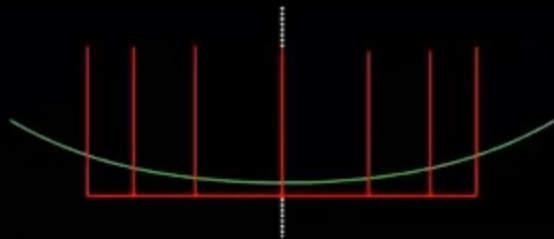
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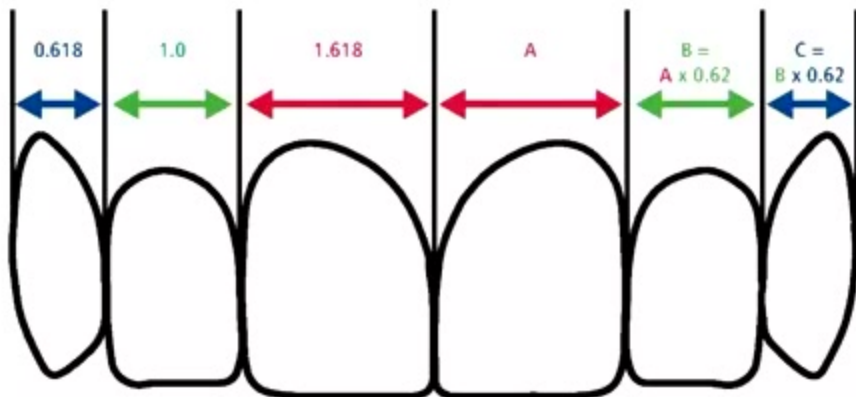
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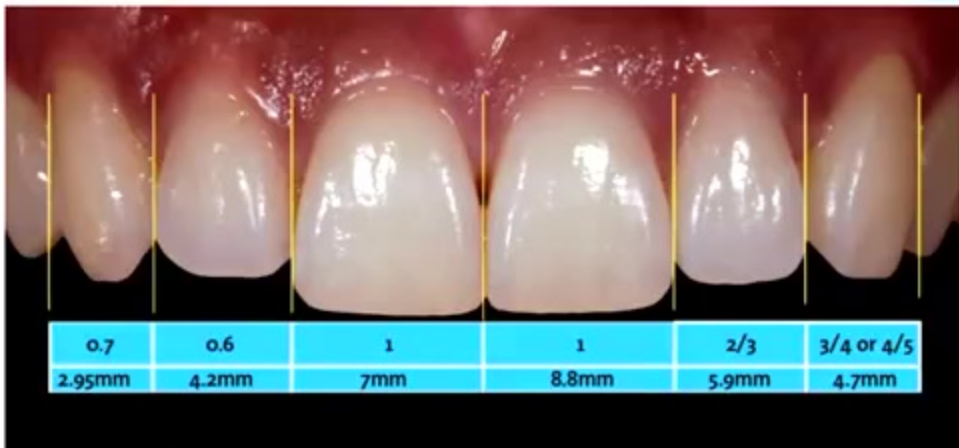


3. Interdental proportion

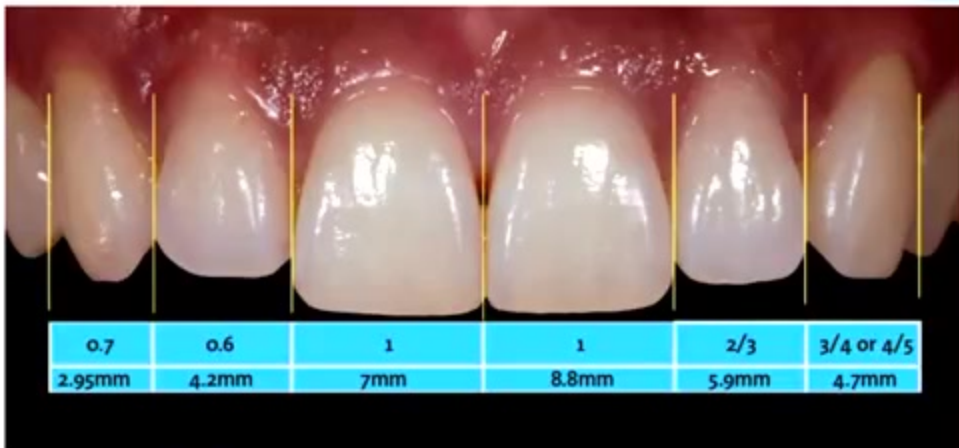
Golden proportion (Lombardi): When viewed from the facial, the width of each anterior tooth is 60% of the width of the adjacent tooth (mathematical ratio being 1.6:1:0.6)



















Correct dental proportion is related to facial morphology and is essential in creating an esthetically pleasing smile. Central dominance dictates that the centrals must be the dominant teeth in the smile and they must display pleasing proportions. They are the key to the smile.

The proportions of the centrals must be esthetically and mathematically correct. The width-to-length ratio of the centrals should be approximately 4:5



Central Incisor Proportion

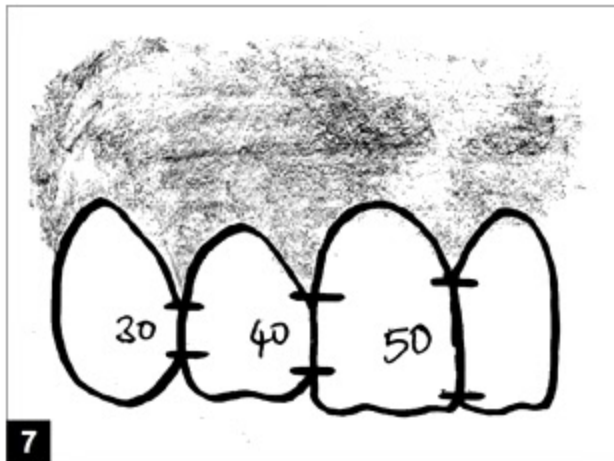
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Depending on facial form, long and dolichocephalic or square/ brachycephalic.

Interdental contact area and point

Interproximal contact area (ICA):

1. It is defined as the broad zone in which two adjacent teeth touch.
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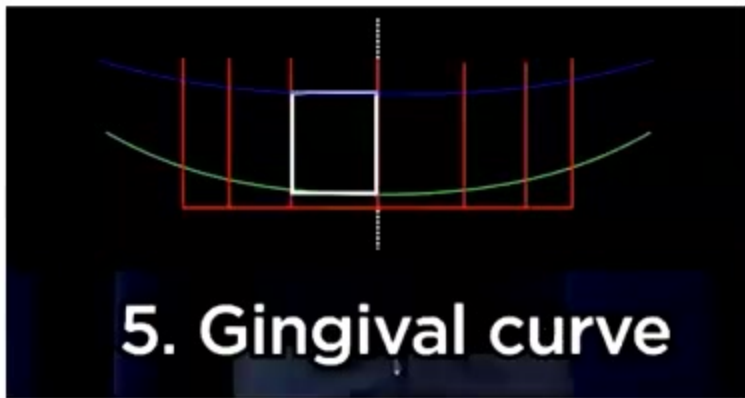
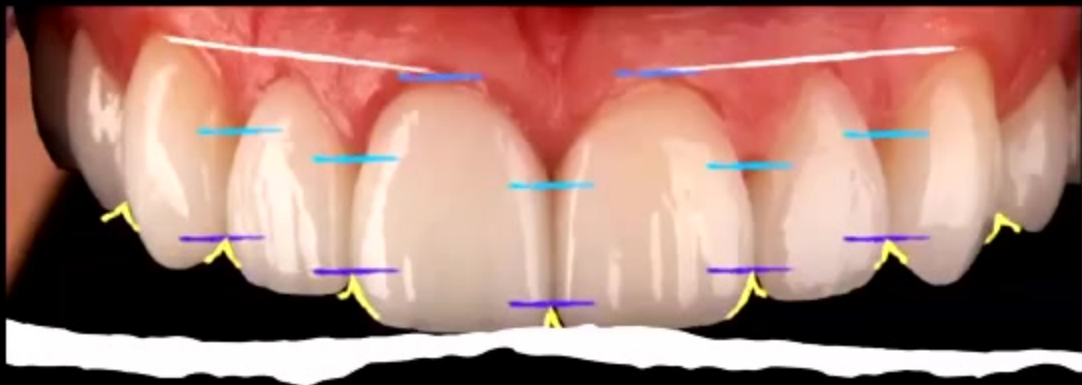


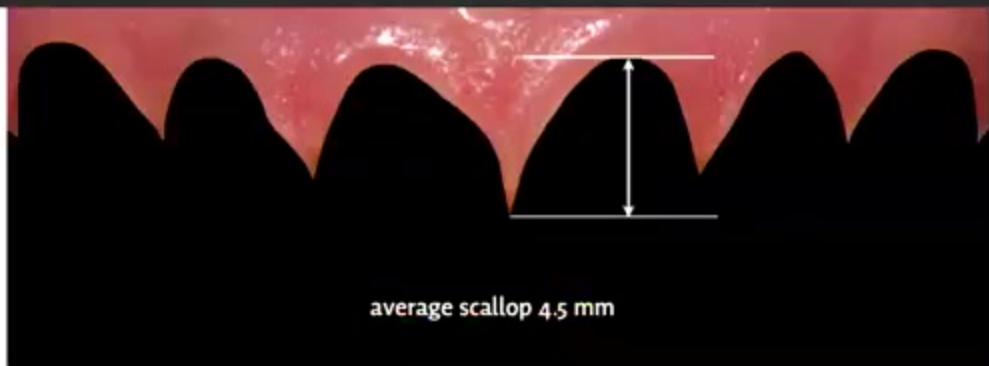


Figure 6: Gingival symmetry in relation to the centrals, laterals, and canines is essential to esthetics. Optimal esthetics is achieved when the gingival line is relatively horizontal and symmetrical on both sides of the midline, when considering the centrals and



Gingival Symmetry

- Gingival Zenith
- Embrasure space
- Papillae Curve



Papillae Curve

- The papillae curve should be between 4-5 mm



7. Twelve o'clock analysis

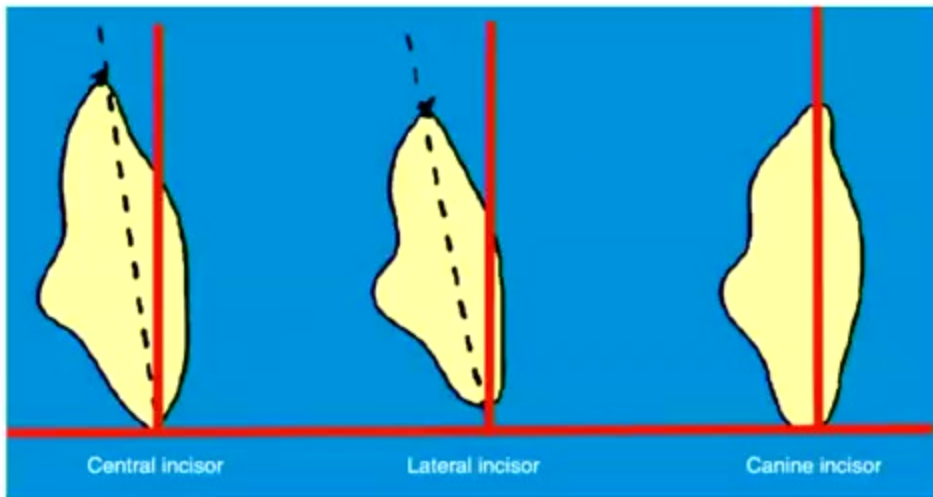
The guide for labiolingual inclination is as follows:

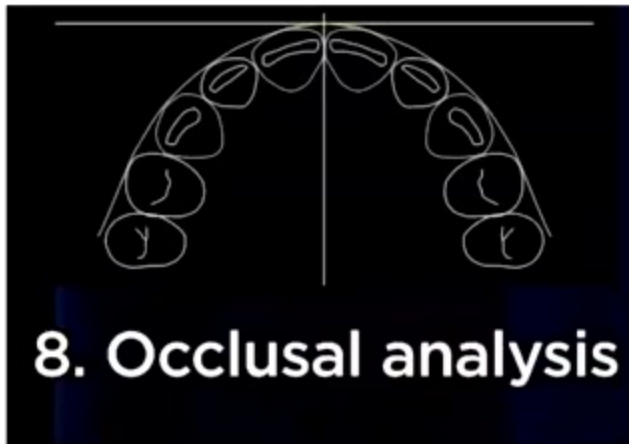
1. **Maxillary central incisor** – positioned vertically or slightly labial
2. **Maxillary lateral incisor** – cervical is tucked in, incisal edge inclined slightly labially
3. **Maxillary canine** – cervical area positioned labially, cusp tip lingually angulated

• Angle Orthod. 2011 Jan;81(1):121-129. doi: [10.1016/j.orthod.2010.08.011](#)

Effect of maxillary incisor labiolingual inclination and anteroposterior position on smiling profile esthetics

Li Gao ¹, Yan Zhang ², Dong Han ^{1,3}, Guo-Liang ⁴, Xu-Liang ⁵, Guo-Liang ⁶





SEPARATE CHAPTER ALL TOGETHER

THE RULE OF 42.2



4MM OF INCISAL
DISPLAY AT REST

- 2 MM OF GINGIVAL DISPLAY
- 2 MM DISTANCE FROM THE INCISAL EDGE TO LOWER LIP LINE

Variables and factors that may affect smile design: A mini review Tan Ming Hoe¹, Jennifer Ting¹, Lu Siew Chui¹, Tan Mei Wen¹, Mohammed Jasim Al-Juboori¹, International Journal of Contemporary Dental and Medical Reviews (2015)

Phonetics

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Clinical Implications

- The position of the upper incisal edges should be at the inner vermillion border of the lower lip or usually referred to as the wet-dry line. **This is one of the most reliable guidelines used to determine the incisal edge length.**
- The importance of the smile line now becomes apparent with the understanding that control of escaping air between the upper incisal edges and the lower lip is necessary for proper phonetics. If the upper incisal edges are not correctly determined they will not relate to the lip correctly and a strained lip position will be required for making **F** and **V** sounds.
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- If the contour of the upper cingulum is too bulky, the tongue may bump into it when making **T** and **D** sounds.



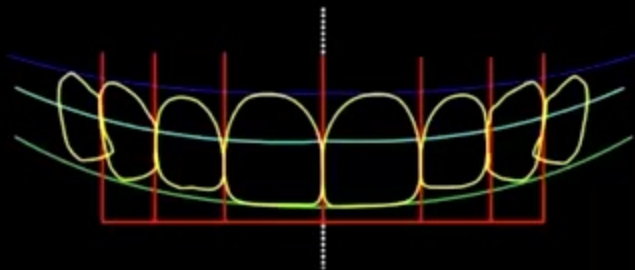
Figure 3: Drawing a line on the glabella, subnasale, and pogonion enables a fast evaluation of esthetics without the need for radiographs to determine alignment of ideal facial elements.

- **Smile Analysis**
- EA McLaren, L Culp - *J Cosmet Dent*, 2013 – Volume 29



**10. Occlusal plane
from the profile view**

10 steps of the Smile Frame





Post Ortho (2014)



1. Mid Line

A close-up photograph of Tom Cruise smiling broadly, showing his teeth. His upper front teeth exhibit a noticeable midline shift, where the center of the upper teeth does not align with the center of his face. The text 'FIXING THE MIDLINE SHIFT...' is overlaid in orange at the top left, and 'MISSION IMPOSSIBLE!' is overlaid in orange at the bottom left.

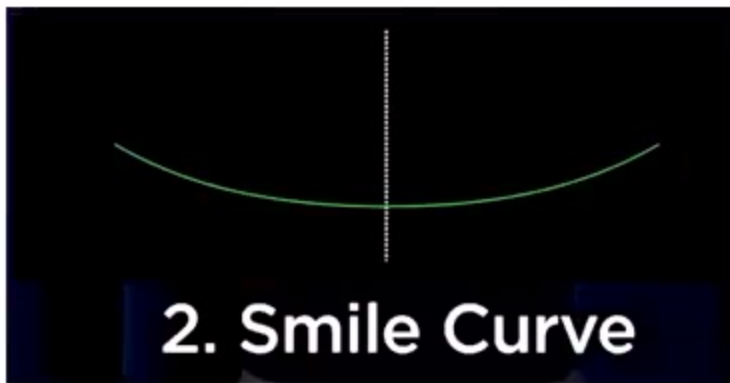
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Smile Analysis

EA McLaren, L Culp - J Cosmet Dent, 2013 – Volume 29

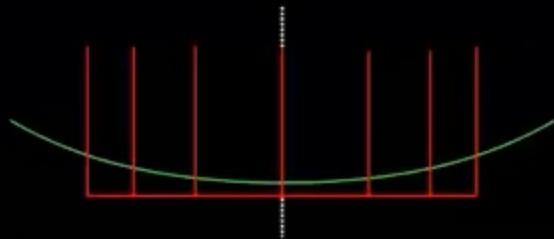


2. Smile Curve



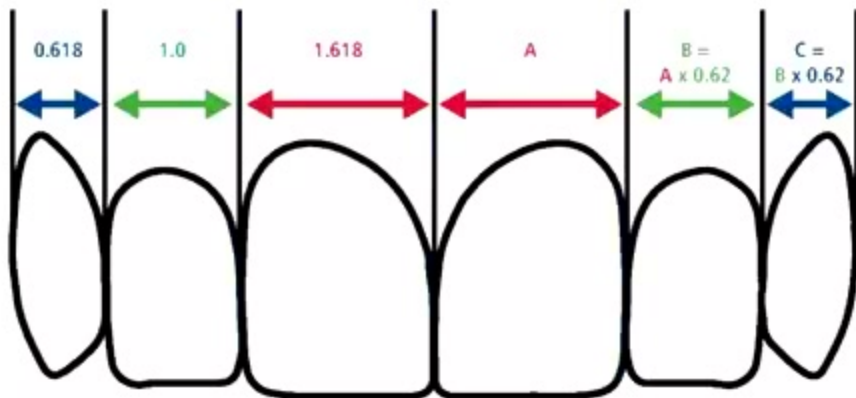
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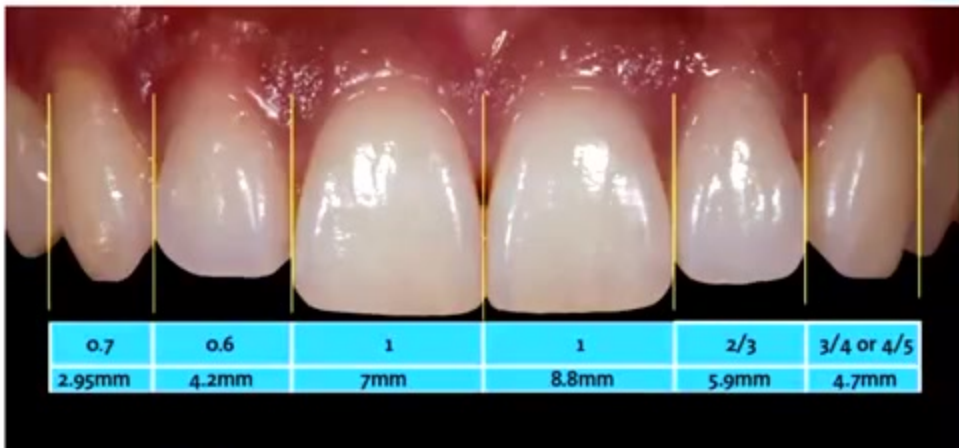
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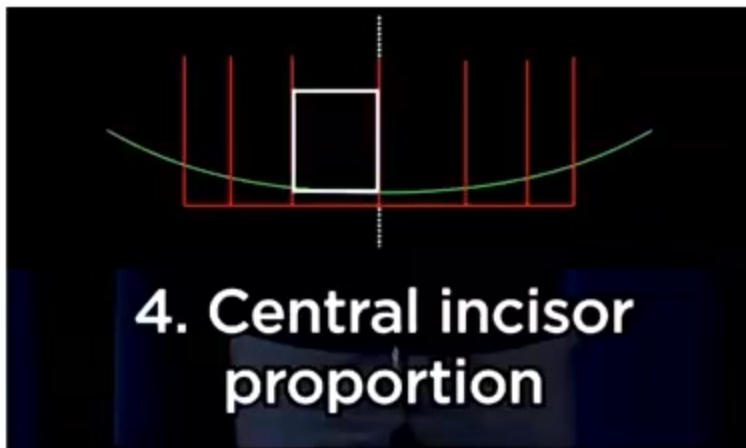


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Central Incisor Proportion

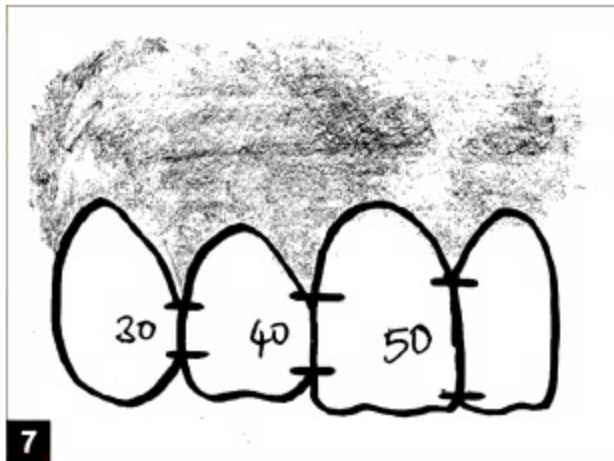
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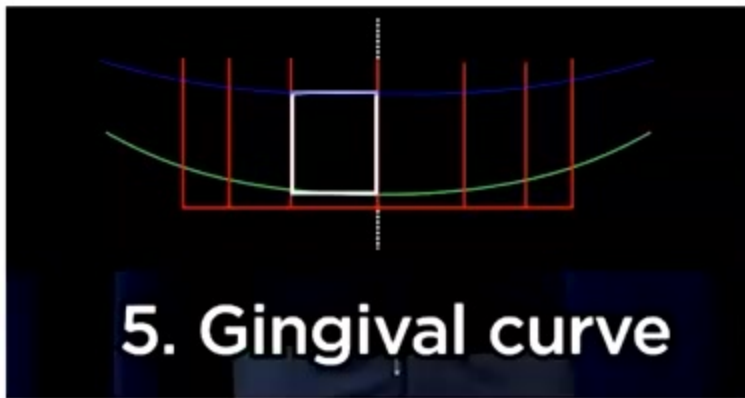
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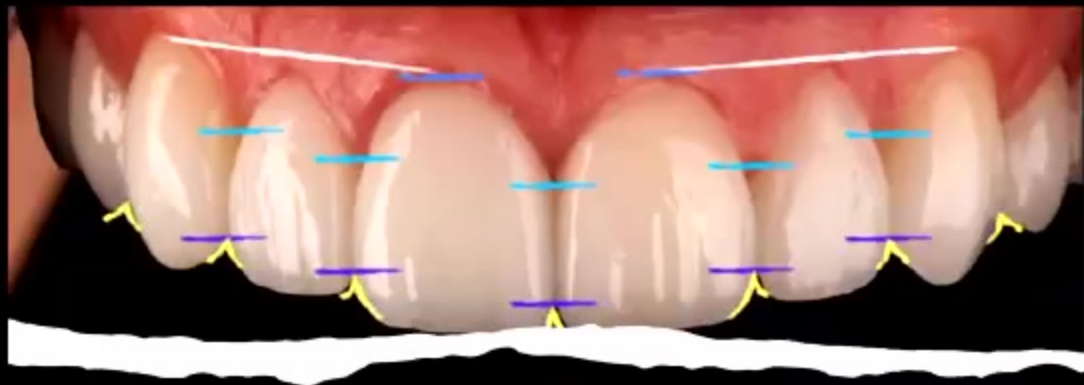
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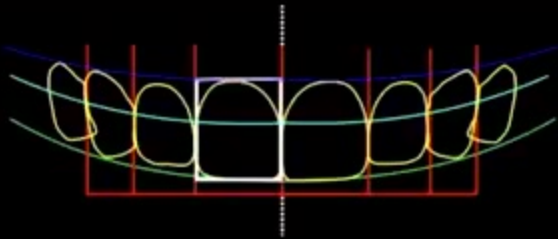




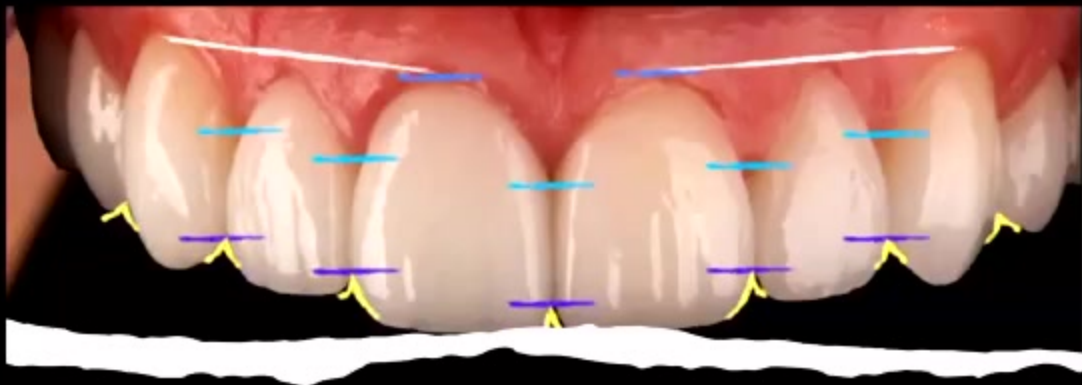


Gingival Symmetry

- Gingival Zenith
- Embrasure space
- Papillae Curve

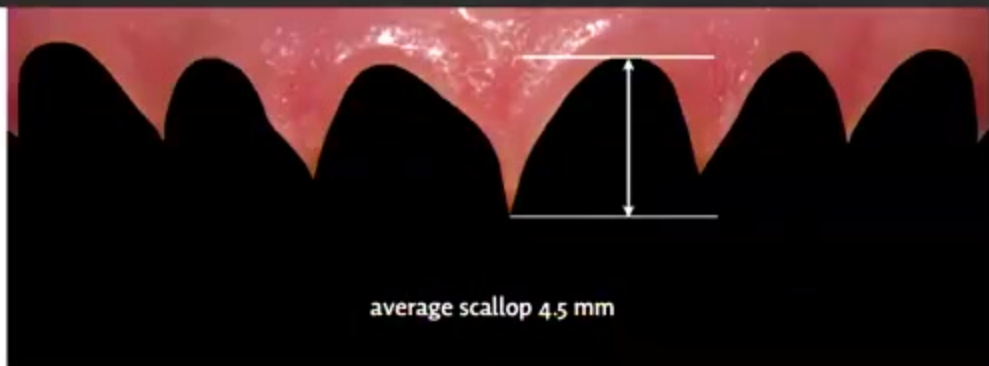


6. Papillae curve



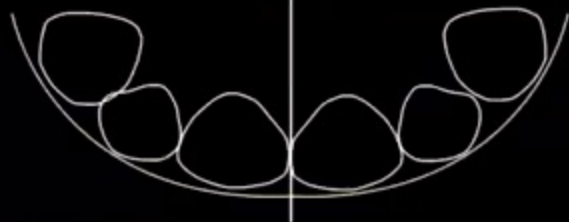
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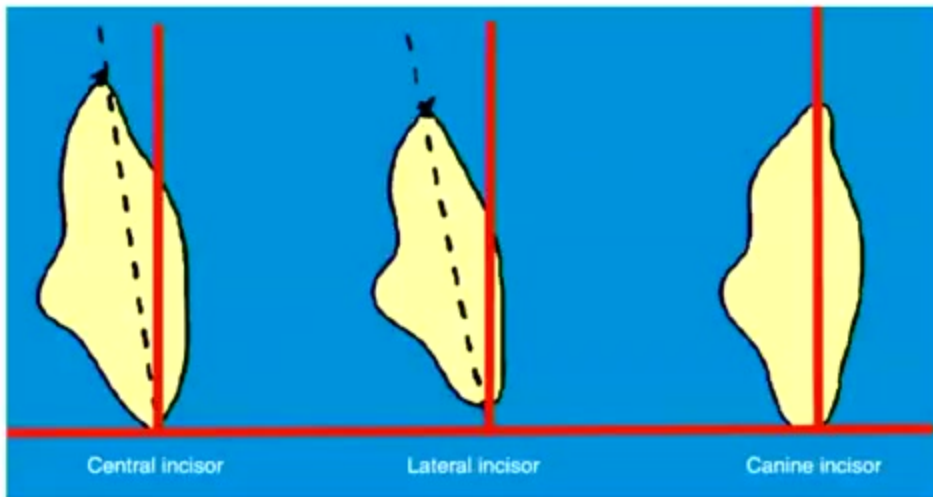


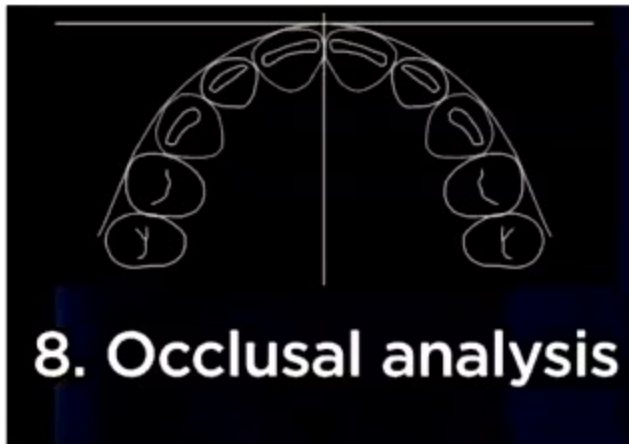
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7. Twelve o'clock analysis





SEPARATE CHAPTER ALL TOGETHER

THE RULE OF 42.2



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DISPLAY AT REST

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Variables and factors that may affect smile design: A mini review Tan Ming Hoe¹, Jennifer Ting¹, Lu Siew Chui¹, Tan Mei Wen¹, Mohammed Jasim Al-Juboori, International Journal of Contemporary Dental and Medical Reviews (2015)



**9. Buccal of the central
from the profile view**

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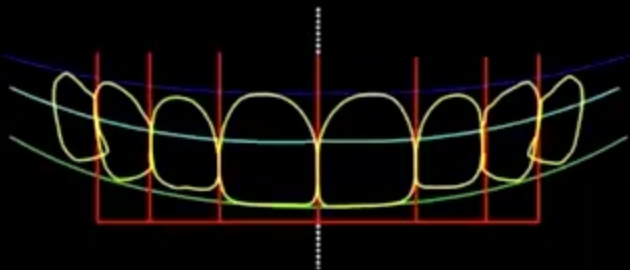
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- **Smile Analysis**
- EA McLaren, L Culp - *J Cosmet Dent*, 2013 – Volume 29

10 steps of the Smile Frame





Post Ortho (2014)



- Initial Build Up





9 years later

These principles are used as a guide rather than a rigid mathematical formula. Most authors recommend creating harmony and balance by eye via proper adjustment and evaluation rather than any formula.

- WHAT IS HUE, VALUE AND CHROMA

