

## Gummy smile, dermatologist or dentist?



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**Key words:** Botox; excessive gingival exposure; gummy smile.

### SURGICAL CHALLENGE

Excessive gingival exposure, or gummy smile, is defined as the exposure of >2-3 mm of gingiva while smiling.<sup>1</sup> The excessive gingival exposure is caused by a combination of factors, most commonly inadequate crown exposure or hyperfunctional upper lip elevator muscles.<sup>2</sup> Therefore, it is crucial for the dermatologist and treating dentist to determine the etiology of gummy smile and which treatment is indicated to best address the causative factor.

### SOLUTION

A simple task that can be performed by dermatologists is to assess the width and height of the central incisors. A rule of thumb is that the ideal width of the central incisors is 75%-85% of the height. The typical height of the central incisors is 9.5-11 mm, depending on the sex of the patient. If a patient has excessive gum exposure and short incisors, the patient should be referred to a periodontist to achieve an aesthetically acceptable smile. Treating a patient with gummy smile associated with inadequate crown exposure with botulinum toxin injections is inappropriate (Figs 1 and 2). When all of the previously mentioned factors have been addressed and the dermatologist believes that the gummy smile is caused by hyperfunctional upper lip elevator muscles, then botulinum toxin injections are the appropriate treatment. The dermatologist must be able to recognize inadequate crown exposure and how it is best treated.

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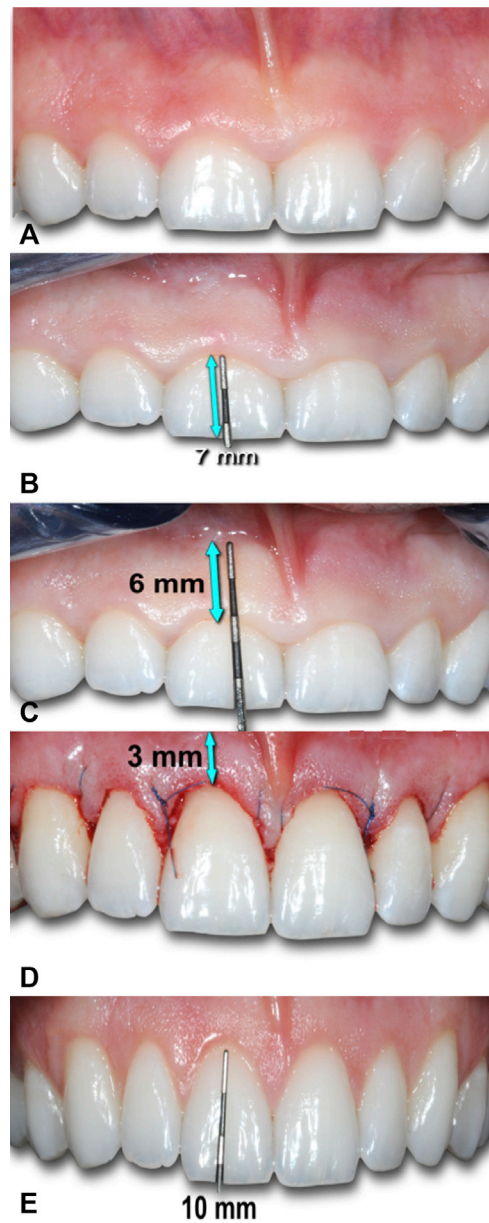
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**Fig 1.** Excessive gum exposure associated with short incisors. **A** and **B**, The central incisors are 7 mm in height. **C**, The height of the gingiva when smiling is 6 mm. **D** and **E**, After gum excision by a periodontist (**D**) and 3 months of healing (**E**), the height of the central incisors is 10 mm.



**Fig 2.** Comparison between gummy smile associated with short incisors (**A** and **B**) and hyperfunctional upper lip elevator muscles (**C** and **D**). **A**, Patient with short incisors; 3 months after gum surgery (**B**), the central incisor height corrected to 10 mm. **C**, Patient with excessive gingival exposure due to hyperfunctional upper lip elevator muscles; exposure 2 weeks after treatment with botulinum toxin injections (**D**).

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