

## Case Report

### The use of the digital smile design concept as an auxiliary tool in periodontal plastic surgery

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#### ABSTRACT

Periodontal surgery associated with prior waxing, mock-up, and the use of digital tools to design the smile is the current trend of reverse planning in periodontal plastic surgery. The objective of this study is to report a surgical resolution of the gummy smile using a prior esthetic design with the use of digital tools. A digital smile design and mock-up were used for performing gingival recontouring surgery. The relationship between the facial and dental measures and the incisal plane with the horizontal facial plane of reference were evaluated. The relative dental height x width was measured, and the dental contour drawing was inserted. Complementary lines are drawn such as the gingival zenith, joining lines of the gingival and incisal battlements. The periodontal esthetic was improved according to the established design digital smile pattern. These results demonstrate the importance of surgical techniques and are well accepted by patients and are easy to perform for the professional. When properly planned, they provide the desired expectations. Periodontal Surgical procedures associated with the design digital smile facilitate the communication between the patient and the professional. It is, therefore, essential to demonstrate the reverse planning of the smile and periodontal parameters with approval by the patient to solve the esthetic problem.

**Key Words:** Dentist's practice patterns, gingiva, periodontics

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#### INTRODUCTION

Smile is considered essential for facial esthetics because the most important expressions of human beings are manifested through it.<sup>[1]</sup> It is a result of the exposure of teeth and gums during the contraction of the muscle groups of the middle and lower thirds of the face and its harmony is not only determined by the shape, position and color of the teeth, but also the visible perception of the gingival tissue.<sup>[2,3]</sup>

Digital smile design (DSD) is based on the use of high-quality digital tools, with a possible static and dynamic practice, promoting a more effective and customized treatment plan. Digital planning amplifies the diagnostic view and improves documentation and communication, both interdisciplinary as well as between the professional and patient, providing the development of a treatment plan that includes a smile

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