

IMPLANTS

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Determining the Completion of Growth for Implant Placement in Young Patients



By Greggory Kinzer (/spear-review/author/greggory-kinzer/) on July 27, 2015 | (/bookmarks/bookmark/38548)

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Fig. 1



Fig. 2

Most young patients that are congenitally missing teeth are 14 to 16 years of age at the completion of orthodontic treatment. At what age can you place implants? If implants are placed before growth is completed, the outcome can be catastrophic, as can be seen in this patient that had implants placed when she was 13-years old (See Figs 1, 2). The implant (<https://www.speareducation.com/spear-review/category/implants>) restorations were re-done by her general dentist when she was 25 years old so the incisal edge position is correct, but the gingival margin position is significantly more apical.

When facial growth occurs, the teeth erupt to stay in contact as the ramus elongates (See Fig. 3). This eruption causes a discrepancy between the gingival margins of the implant at the natural teeth. As can be seen, in a patient with a high lip line, this is esthetically unacceptable. For these reasons, it is important that we determine that the patient has completed growth before placing implants. So, how do you determine when growth is complete?

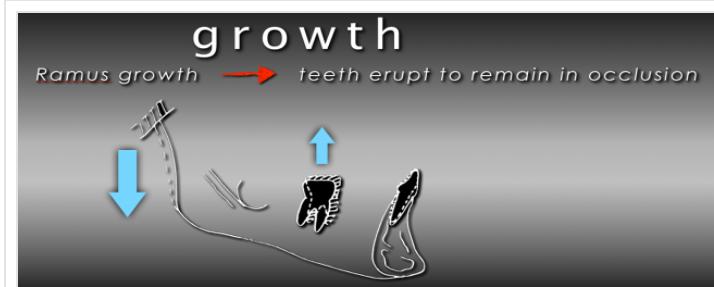


Fig. 3

Historically, a hand wrist film was used to assess the completion of growth. However this is now discovered to be inappropriate in assessing facial growth because it is not specific enough to each patient. The best method to evaluate the completion of facial growth is by superimposing [Live Chat](#) cephalometric radiographs taken 6 months to 1 year apart.¹ If these radiographs there are no changes in vertical facial height (nasion to menton), this indicates that most of the facial growth has been completed.

Typically, the age that implants can be placed is approximately 17 years of age for females and 21-22 years for males, however sequential cephalometric radiographs should be compared for verification.²

Sources

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2. Fudalej P: Determining the cessation of facial growth to facilitate implant placement. Master's Thesis. University of Washington, Department of Orthodontics. Seattle, WA 1998

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