

Narrow implants

The possibility of placing implants can sometimes be limited due to physical conditions, e.g. where the horizontal space is limited by adjacent teeth and roots, or in situations with a narrow alveolar ridge. By using a narrow implant the need for bone augmentation or orthodontic tooth movement can be avoided. In situations with limited horizontal space a narrow diameter implant may be the only option to replace a missing tooth.

Several studies evaluating the clinical outcome of narrow implants (<3.5 mm in diameter) in general, used for different indications, have been published. Narrow implants supporting single tooth replacements have shown favourable clinical results¹⁻⁸ in the long-term perspective^{3, 5, 6, 8, 9}. Moreover, studies evaluating fixed partial dentures have shown good clinical results both after short-¹⁰ and long-term follow-up periods^{5, 6, 8, 11-14}. Narrow implants have also been used to support full arch reconstructions, and satisfactory results have been shown for fixed bridges⁸ and overdentures in the mandible^{8, 15} and in the maxilla⁸. In general, no difference in the clinical outcome between standard diameter implants and narrow implants has been observed^{4, 5, 16-19}. In two extensive reviews, it was concluded that survival rates for narrow implants are comparable with that of standard diameter implants when used in appropriate indications^{20, 21}.

The narrowest implants from DENTSPLY Implants are OsseoSpeed 3.0 S and XiVE 3.0, both with a diameter of 3.0 mm*. Published data indicates that treatment with OsseoSpeed 3.0 S²²⁻²⁸ and XiVE 3.0²⁹⁻³¹ implants is safe and predictable in sites with limited physical space in anterior regions. Prospective clinical studies evaluating early and immediate provisionalization** of these 3.0 mm implants report on maintained marginal bone levels and high implant survival rates from loading to 1-year^{23, 30}, 3-year^{27, 29} and 5-year follow-up²⁸.

* * The intended use for OsseoSpeed 3.0 S is limited to replacement of maxillary lateral incisors and mandibular incisors. The XiVE 3.0 is indicated for single-tooth restoration of maxillary lateral incisors and mandibular incisors and splinted single-tooth restoration for mandibular incisors.

**XiVE 3.0 is not indicated for immediate provisionalization in the US.

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