Documentation on short implants
79181-USX-1109
Date of issue: March 2011

Short implants

Implant placement in the posterior regions can be limited due to physical conditions, e.g. limited vertical bone height due to the expansion of the maxillary sinus or the proximity to the inferior alveolar nerve. Another complicating factor in posterior regions is the general exposure to greater loads than in anterior regions.

Historically, clinical studies have reported on low survival rates for short implants (≤10 mm). These studies describe implants with machined surfaces, mostly placed in posterior regions with higher loads and softer bone compared with more anterior regions [1–11]. More recent clinical studies on short implants with rougher surfaces report survival rates similar to implants in general [12–22]. There are several review articles discussing the impact of implant length on the clinical outcome [10, 11, 23–25]. Two extensive reviews concluded that the survival rates for short implants were found to be comparable with those obtained for longer implants placed under similar conditions, when using appropriate surgical technique and implants with a rough surface [11, 26].
Results from several clinical studies on Astra Tech implants show that the survival rates for shorter implants are similar to longer implants [14, 27–30] and that there is no correlation between implant length and marginal bone level change [14].

The Astra Tech short implant, OsseoSpeed™ 4.0 S, 6 mm, has been developed to allow for implant placement in clinical situations where there is limited vertical bone height. It has a length of 6 mm and the same features and surface as the OsseoSpeed™ implants.
Results from a clinical study comparing OsseoSpeed™ implants with a length of 6 mm to that of 11 mm long implants in the posterior region indicate that treatment with short implants have equally good results on maintaining marginal bone levels compared to standard length implants [31].

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