Scientific Literature

Small Diameter Implants: 4

Surface Treatment of Small Diameter Implants and the Effect on Osseointegration and Crestal Bone Retention

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Abstract

Abstract: Since the introduction of dental implants, clinicians have developed strategies to accelerate healing and compress the time to final prosthetic reconstruction. These strategies have included modifying implant macroarchitecture, microarchitecture, and surface chemistry.

While the first surface treatment utilized acid etching to increase surface area, the earliest attempt to incorporate a bone-like surface treatment employed a plasma sprayed hydroxyapatite appositional coating to improve the quality of osseointegration. Although long term results on HA coated implants have been inconclusive, additional studies using calcium phosphate materials have been conducted with more definitive outcomes.