

Effects of Bone Types on Bone Remodeling of A Dental Implant: A Review of the Literature

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Abstract

The bone quantity and quality, indicating density and strength of bone are the important factors in dental implant treatment. Bone quality frequently dictates the overall treatment plan of a patient due to changes in compatible surgical approach, appropriate wound healing time, and preferred pattern of occlusal forces on the final restoration. Furthermore, bone augmentation before implant placement in the area where the bone architecture is inadequate can affect the loading protocol. An article search was proceeded using the PubMed database with keywords “type of bone,” “bone density,” “bone quality,” “loading time,” and “bone remodeling”. Fifty-three original articles meeting the inclusion criteria were analyzed. This literature review compiles basic knowledge on the effect of quality of bone to loading time of dental implant, effects of bone density to dental implant treatment success, bone classification, factors affecting bone density in individual, definition of each loading protocol, and effects of various types of bone to remodeling process of peri-implant bone.

Keywords: bone density, bone quality, peri-implant bone, type of bone