

Special Issue

Fatigue Design of Dental Implant

Message from the Guest Editor

Dental implants are widely used to restore a single missing tooth or even completely edentulous jaws. In these systems, biological and mechanical complications may exist. Being exposed to variable masticatory loads, fatigue failure is a major mechanical concern, and several materials, manufacturing processes, geometries and dimensions, assembly conditions, and surface treatments, among other influence factors, have been proposed and studied to improve the fatigue behavior of dental implants. ISO 14801 Standard was further developed to standardize fatigue testing conditions for dental implants in order to allow for a direct comparison of the performance of different design alternatives. In this sense, experimental tests are the cornerstone in this research field, sometimes combined with numerical and analytical models. Thus, in spite of the great effort made so far, fatigue design of dental implants is still a hot topic where a lot of work remains to be done to minimize this problem and guarantee long-term clinical success in dental implants.

Guest Editor

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Deadline for manuscript submissions

closed (10 October 2022)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/53338

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