A review of dental implant materials

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Implants have been gaining popularity amongst the patients and frequently are being considered as a first treatment option for missing teeth. In attempt to replace a missing tooth many biomaterials have been evolved as implants for many years in an effort to create an optimal interaction between the body and the implanted material. From a chemical point of view, dental implants may be made from metals, ceramics or polymers. The choice of material for a particular implant application will generally be a compromise to meet many different required properties. There is, however, one aspect that is always of utmost importance that how the tissue at the implant site responds to the biochemical disturbance that a foreign material presents and whether the surrounding bone is integrated with the implant material. The goal of achieving an optimal bone-implant interface has been approached by the alteration of implant surface topography, chemistry, energy and charge as well as bulk material composition. This presentation will review and summarize the biomaterials used for dental implants and the various pros and cons associated to those materials. This presentation might answer the question that "Are ceramic and polymer implants a promising alternative to titanium implants?"

Biography

Fariba Motevasselian has completed her post graduate program at Restorative and esthetic dentistry from Tehran University of Medical Sciences (TUMS), faculty of dentistry (2000-2004) and got her master degree in Conservative dentistry from University College London, Eastman Dental Institute (2011-12). She is an assistant professor at Restorative department of TUMS faculty of dentistry.