

Impression Making in Dental Implantology

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Implant is defined as any object or material, such as an alloplastic substance or other tissue, which is partially or completely inserted or grafted into the body for therapeutic, diagnostic, prosthetic, or experimental purposes (GPT 9) [1]. Dental implant is defined as a prosthetic device made of alloplastic material(s) implanted into the oral tissues beneath the mucosal and/or periosteal layer and on or within the bone to provide retention and support for a fixed or removable dental prosthesis; a substance that is placed into and/or on the jaw bone to support a fixed or removable dental prosthesis (GPT 9) [1]. Dental implant commonly known as the 3rd dentition, is the choice of prosthetic treatment modality for the restoration of partially and completely edentulous patients. Implantology consists of oral rehabilitation following the scientific rationale. Despite the success of the dental implant prosthetic rehabilitation over a long period, the failures are still bound to occur. The main goal of the implant impression procedure is to obtain the exact replica of the implant analogues and the associated oral tissues i.e. both hard and soft tissues, avoiding instabilities in the prosthetic device. The most precise and the passive fit of the dental implant with the superstructure ensures long-term success of the implants as well as the final prosthesis.

The use of dental implants as a prosthetic treatment modality of choice for the replacement of the natural tooth has been quite usual in the routine clinical practices [2]. Dentistry has been through various leaps and bounds and in today's scenario, dental implants play a pivotal role in the replacement of a missing tooth/

teeth. Implants, as defined, act as a therapeutic solution as well as anchors for the final prosthesis i.e. both removable and fixed prosthesis, for better clinical outcome of the same in comparison to the conventional prosthesis [3]. Apart from the failures, the success in implantology generally influences the dental practice and motivates patient for the implant prosthetic rehabilitation [4]. A common saying, "The first impression is the last impression"; pertains the best when talking in terms of impression making in implantology. A good rather the best impression making is desirable in implantology to properly record the spatial position of the dental implant inside the patient's mouth. The best and the precise impression making in implantology is utmost needed for the final outcome of implant prosthesis with passive fit [5]. Such impression making in implantology becomes quite critical in contrast to the impression making for fixed dental prosthesis due to the absence of periodontal ligament (PDL) fibres in implant. Dental implants are completely ankylosed in the bone unlike the fixed dental prosthesis using natural tooth as an abutment associated with the resiliency factor of the PDL fibres to compensate minor discrepancies associated with the impression making. Hence, it becomes mandatory to record the spatial orientation and position of the dental implants.

The main objective of impression making in implantology involves the accurate recording of spatial implant position to obtain a proper support to definitive restoration with passive fitting. In addition to this, precise registration of the implant position as well as the gingival situation, disinfectability of impressions and com-

plete masking with dental stone, are some of the other objectives of implant impressions.

The classification of impressions in implantology [6] or the various impression techniques in implantology is summarized (Figure 1).

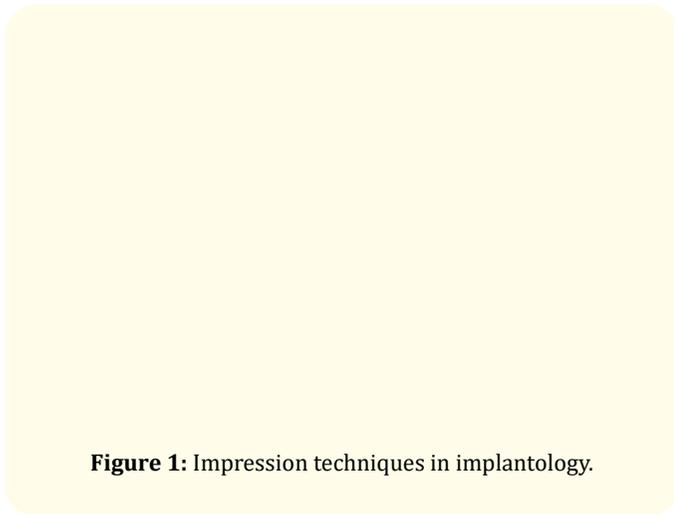


Figure 1: Impression techniques in implantology.

Conclusively, an accurate impression with the most intricate details acts as an important pre-requisite for the final implant supported prosthesis. The inaccuracies in the impression making may further lead to the failure of the dental implant prosthesis over a longer period. Understanding the armamentarium with a variety of prosthetic components of utmost importance to the clinician. Impression techniques in implantology have their respective merits and demerits and can be employed based on the clinician's preference. The important goals of impression making in implantology is to record the position, depth, axis/angulation, rotation-hex position and soft tissue contour (emergence profile). Hence, impression materials is the key for the success in the field of implant dentistry.

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