

Recent Trends in Dental Implants

Denis Zofou*

Biotechnology Unit, University of Buea. PO Box 63 Buea, South West Region, Cameroon

*Corresponding author: Denis Zofou, Biotechnology Unit, University of Buea. PO Box 63 Buea, South West Region, Cameroon; Tel: 237-7718 3510; E-mail: zofden@yahoo.com

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Introduction

Dental implants are artificial structures that a dental surgeon inserts into a person's jawbone. A person may need an implant if they have lost one or more teeth.

There are two types of dental implant: endosteal and subperiosteal.

Endosteal implants are the most common type. A surgeon embeds them in the jawbone, and each can hold one or more artificial teeth.

A surgeon affixes a subperiosteal implant on top of the jawbone. Dental surgeons choose this option for people who do not have much height to their jawbone.

The benefit of using implants is that they don't rely on neighboring teeth for support and they are permanent and stable. Implants are a good solution to tooth loss because they look and feel like natural teeth.

Implant material is made from different types of metallic and bone-like ceramic materials that are compatible with body tissue. There are different types of dental implants: the first is placed directly into the jaw bone, like natural tooth roots; the second is used when the jaw structure is limited, therefore, a custom-made metal framework fits directly on the existing bone.

Diagnosis / Prognosis

- Diagnosis: Generalized advanced periodontal attachment loss, caries, heavily restored teeth, poor esthetics and function. Good potential bone quantity and quality availability for six or more implants in both arches i.e. very good bone in the mandible and fairly good bone in the maxilla. Existing pre extraction bone and gingival tissue loss with anticipated significant further recession after extractions and extraction socket healing.
- Prognosis for the Natural Teeth: generally poor.
- Prognosis for the Implants: Implant prognosis was anticipated to be excellent in the mandibular anterior area and fairly good in the anterior maxilla. The prognosis was arrived based on factors such as no systemic risk factors other than a history of aggressive periodontitis and less than ideal patient home care compliance.

Dental Implants Failing to Osseointegrate with the Jawbone

Osseointegration between the titanium implant and jawbone is by far the most important part of the dental implants procedure. If this

step fails, the implant will not be strong enough to support occlusal forces in the mouth causing it to eventually fail.

Surgical area: Infection

One of the most common reasons for dental implant failure occurs as a result of an infection at the dental implant site. Some of the reasons for these infections are from poor oral hygiene after the implant surgery, bacteria that is present during the implant surgery or from dental cement used to secure crowns getting trapped under the gum tissue.

Implant: Rejection

In rare cases, the patient's body may reject having a foreign object implanted into their jawbone, similar to rejection that can occur in organ transplants. The body may also reject a dental implant if a patient has an allergic reaction to titanium.

Risk

Some people are not eligible for dental implant surgery. It is not safe for dental surgeons to operate on people with:

- acute illness
- uncontrollable metabolic disease
- bone or soft tissue disease or infection

Potential Complications of Implant Surgery

People who undergo this procedure may experience complications during or afterward. The issues may include:

- nerve damage, resulting in altered sensation in the surgical area
- an opening of the incision following surgery
- movement of the implant
- exposure of the implant above the gumline
- infection of the implant

People who experience movement or exposure of the implant may need to undergo additional procedures to improve the health of the bone and gums or remove or replace the implant.