Implant maintenance care solution

By Dr Olivier Carcuac, Sweden

Proper monitoring and maintenance are essential to ensure the durability and health of a dental implant. The long-term success of implants is fundamentally dependent upon both the patient’s maintenance of effective home care and on the dental team’s administration of professional prophylaxis procedures in the dental office.

Implant maintenance care programme

Proper monitoring and maintenance are essential to ensure the durability and health of a dental implant. Following the completion of the surgical and prosthetic procedures in implant therapy, it is imperative to inform the patient about how to carry out self-performed infection control procedures.

The long-term success of implants is fundamentally dependent upon both the patient’s maintenance of effective home care and on the dental team’s administration of professional prophylaxis procedures in the dental office.

Professional infection control procedures are necessary to achieve long-term success of our implant treatments and include the removal of hard and soft tissue deposits on implant and suprastructure components with scalers.

Great care and caution should be practiced when cleaning the dental implant and the instruments to be used should ideally be capable of removing efficiently the bacterial deposits without altering the implant surface, the implant components and the surrounding tissue.

In this context, it is imperative to highlight that deep instrumentation, such as “subgingival debridement” that normally is performed around teeth, is not recommended in non-surgical treatment of peri-implant disease. The reasons for this difference in strategy are the reduced access of the implant device with its threaded part and other obstacles to access. The risk of causing injury to the inflamed tissue when performing “blind” instrumentation must be emphasised.

Debridement of implant surfaces

Hand curettes of different materials have been proposed as instruments for removing bacterial deposits of the supra- and subgingival peri-implant areas.

Among these instruments, plastic, carbon fiber, stainless-steel and titanium curettes are included. Some studies have been performed to evaluate these different materials regarding to their cleaning efficacy and potential of alteration of the implant surface and prosthetic component, which could affect its biocompatibility, biofilm formation and therefore the implant longevity.

Hand curettes of different materials have been proposed as instruments for removing bacterial deposits of the implant surfaces.

Gentle on titanium implant surfaces

• Unlike plastic scalers, titanium scalers don’t leave contaminants on the treated implant surface.

To avoid alteration or scratching of the implant’s surface, the practitioner should use very light pressure, appropriately graded during maintenance scaling procedures.

Effects of hand instruments on the implant surface

SEM investigation of instrumented titanium implant surface shows significantly less scratching caused by titanium curettes compared to other commonly used metal curettes and sonic insert.

Benefit of the titanium implant scalers

• Efficient removal of the bacterial deposits.

The long-term success of implants requires often but not always surgery. The implant surfaces are then decontaminated with saline for 2 min. Decoagulation is performed when indicated, and flaps are adjusted and closed with single interrupted sutures.

Hu-Friedy titanium implant scalers & curettes

The new Hu-Friedy Titanium Implant Scalers are expertly designed and manufactured for implant maintenance, debridement, biofilm removal and can be used both supra- and sub-gingival.

• Improved visual acuity and enhanced contrast to the abutment surfaces with Hu-Friedy’s signature tool-coloured anodized titanium.

• Optimized sharpness with cutting edges that are finely honed and sharpened post anodization process.

• Made from the same titanium alloy as implants and abutments, the working ends are gentler on these delicate surfaces than stainless steel.

• Increased instrument value with the ability to be sharpened at any time.

The new line of Titanium Implant Scalers proposes a range of titanium curettes with different shape and profile in order to address all kind of clinical situations.

The Titanium Implant Scalers kit includes:

- A. implant surface treated with Titanium curette
- B. implant surface treated with stainless-steel curette
- C. implant surface treated with plastic curette
- D. implant surface treated with titanium curette
- E. Implant surface treated with Densonic ultrasonic scaler with universal tip

During Maintenance

When should Hu-Friedy implant scaler and curettes be used?

All subjects who present any signs of peri-implant disease should be thoroughly informed about the disorder and instructed on how to carry out self-performed infection control.

Whether the disease is mucositis or peri-implantitis, the initial phase of therapy must always include professional infection control procedures. The main objective is to remove peri-implant biofilm and calculus with scalers, without altering the implant surface, with the goal of re-establishing a healthy peri-implant mucosa.

The treatment of peri-implantitis requires often but not always surgery. The purpose of surgical therapy is to provide access for debridement and decontamination of the implant surface.

During surgical treatment of peri-implantitis

During the maintenance visit, all surfaces that can accumulate deposits and harbor bacteria are cleaned, scaled and polished thoroughly. These surfaces include the prosthetic suprastructure, the prosthetic abutment-to-implant collar connection and sometimes implant body.

Attention and care are required from the clinician during instrumentation and cleaning of these surfaces in order to prevent any damage of the delicate peri-implant biological seal.

Upon insertion of the instrument, the blade will be placed close against the abutment and then opened past the deposit. With a light pressure, a vertical, horizontal, semi-circular or oblique stroke will then be applied to remove all hard and soft bacterial deposits. After removing bacterial plaque and calculus from the abutment or implant, the surface can be polished with rubber cups to prevent additional plaque accumulation.

During non-surgical treatment of peri-implant mucositis and initial peri-implantitis

Regardless of the supra- and subgingival peri-implant diseases, the purpose of the surgical therapy is to perform a surgical treatment of peri-implantitis. A Randomized Controlled Clinical Trial [Dent Res 2019; 98, Pages 485-490].

References


Editorial note: A list of references can be obtained from the publisher.

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