



IMPLANT MAINTENANCE CARE

| Frequently Asked Questions

Q: What is an implant care protocol?

A: A protocol is a set of guidelines, a system or a set of procedures designed to assist clinicians in dental procedures. Specifically, this protocol will provide evidence-based rationale and recommendations to approach dental implant care. Implacare™ scalers and Colorvue probes are the clinician's answer to maintaining dental implants for long term success. A study published in Volume II, Number 1, 1996 of *The International Journal of Oral and Maxillofacial Implants* compared the effects of various implant scalers on titanium abutments. Research has shown that scaling with Implacare causes the least alteration to implant surfaces.

If an implant surface is altered, this makes it more susceptible to plaque and bacteria buildup (versus a smooth surface). Research has demonstrated an increased relationship between surface and peri-implant environmental alterations and the development of peri-implant mucositis and peri-implantitis.¹ Hu-Friedy is committed to providing safe and efficacious products for the long term oral health of dental implants for patients who have invested in their oral health and smile.

Q: What are the differences in implant maintenance materials (resin, titanium, etc)?

A: Currently, plastic and titanium instruments dominate the implant maintenance market. Power driven choices are also available:

- Plastic (resin) dental implant instruments include any of the following: unfilled resin (e.g: Implacare) or filled resin scalers. They may be available as replaceable tip designs (e.g: Implacare) or a one-piece solid construction. Unfilled resin does not have any fillers for reinforcement of shape or stiffness. Filled resin uses fillers—such as silica, graphite, glass—for shape reinforcement and stiffness.
- Titanium instruments use a titanium alloy and perform similarly to stainless steel instruments.²
- In the power driven selections, there are graphite piezo scaling tips and magneto resin implant sheathed power scalers.

Q: Do dental implants accumulate plaque? Calculus?

A: Yes, any natural and prosthetic structures in the mouth can be a reservoir for plaque and calculus. This includes dental implants and associated prosthetic structures.³

Q: Do clinicians need to scale dental implants?

A: Debridement of dental plaque and calculus is part of the implant care appointment. Research supports the complete deposit removal of all dentition—natural and implants.³ Non-metal and unfilled instruments have been proven to produce the least amount of surface alteration.³⁻⁴ The use of Implacare scalers is a safe and effective choice for the debridement of dental implants. Based on the patient's needs, selective polishing may be executed with non-abrasive pastes.³⁻⁵

Q: Do clinicians need to probe dental implants? Is it safe?

A: Under appropriate clinical conditions, research supports the use of gentle, yet thorough probing with implants, while being careful to not interrupt the biological seal.^{3,6} Use of non-metal assessment instruments, such as Colorvue probes, is advantageous to reduce alterations to the abutment environment.

Q: What areas are clinicians probing during assessment?

A: Clinicians are assessing the peri-implant crevice, which is comparable to the sulcus or pocket of a natural tooth. The clinician must have a gentle touch, being careful not to alter the biological seal. Attached and keratinized tissue health is also evaluated for presence and health.^{3,6}

One-stage dental implants should have stable, healed tissue prior to probing.

Ultimately dental hygienists will probe once the final restoration is seated. If gingival surgery was performed in conjunction with the seating of the final restoration, then probing should be delayed until tissue is completely healed (approximately 6 weeks).⁷

Q: What areas are clinicians scaling during implant debridement?

A: Clinicians are scaling surfaces that can accumulate deposits and harbor bacteria. This includes the peri-implant space above and below the gumline. The clinician must have a gentle touch, being careful not to interrupt the biological seal.³ The dental hygienist should scale with short working strokes and light pressure to prevent trauma to the delicate peri-implant sulcus. Upon insertion of the instrument, the blade should be closed against the abutment and then opened past the deposit. The deposit should be engaged apically with the stroke extending coronally. A horizontal, oblique, vertical or semi-circular stroke should be used, depending on the location of the deposit.⁸

How the best perform



- Q:** What happens during the debridement maintenance appointment?
- A:** The debridement appointment will include: review of health history, intraoral assessment and examination, radiographs (when indicated), debridement of soft and hard deposits, selective polishing, flossing, and sodium fluoride treatments if teeth are present when indicated.^{3, 5, 8}
- Prosthetic assessment
 - Osseous assessment
 - Mobility of the implant or prosthetic components
 - Probing
 - Assessment of peri-implant and gingival tissues
 - Radiographic evaluation of implant and prosthetic structures
 - Presence of exudate/supuration
 - Oral hygiene evaluation (presence of plaque and calculus)⁹

- Q:** Are certain instruments needed for different implant styles?
- A:** Instruments should be chosen based on the best design features to access the implant abutment and prosthetic components. Your choice should focus on the patients' needs, biotype of tissue (thick or thin tissue), implant location, prosthesis characteristics and needs to achieve desirable clinical outcomes. For instance, if a longer shank is needed to debride a posterior implant and crown, the Im placare 4R/4L would be an appropriate choice.

- Q:** Do dental implants get infected?
- A:** Yes, bacteria can collect on implant surfaces, and this can lead to peri-implant mucositis and/or peri-implantitis. Peri-implant mucositis is a reversible inflammatory reaction within the soft tissues that surround a dental implant, but with no bone loss. Peri-implantitis is an inflammatory condition around dental implants often associated with the loss of surrounding bone. Implants can be considered to be ailing or failing. Ailing implants refer to those that exhibit bone loss with pocketing. This pocketing is historically stable upon assessment at maintenance appointments, and does not progress. Failing implants refer to those that exhibit bone loss with unstable pocketing. This condition is associated with continuing changes in bone architecture, purulence, and bleeding on probing.^{7, 10-12}

CLINICAL CARE CONSIDERATIONS

- Q:** What are you using to treat your patients' dental implant care needs?
- A:** Research supports the use of instruments that do not alter the abutment surface or leave residue in the peri-implant environment. Dental implants should be assessed and evaluated as part of the recall appointment. Colorvue probes and Im placare scalers are made of unfilled resin, and studies have shown that scaling with unfilled resin will maintain the smoothest implant surfaces.

If an implant surface is altered, this makes it more susceptible to plaque and bacteria buildup (versus a smooth surface). Research has demonstrated the relationship between surface and peri-implant environmental alterations and the development of peri-implant mucositis and peri-implantitis.¹

- Q:** How would your practice benefit from implant maintenance products that are safe and efficacious around all types of implants?
- A:** Research has shown that scaling with Im placare, designed with the optimal rigidity, will cause the least amount of surface alteration. It is possible that this roughened surface may be more conducive to the formation and retention of bacterial plaque, and perhaps in this way result in an adverse biologic response caused by plaque-induced inflammation.^{12, 13}
- Colorvue is safe to use around all dental implants and abutments and features a flexible, rounded tip for greater patient comfort.

- Q:** How would a scaler that will not scratch or alter margins of complex restorations affect your clinical outcomes?
- A:** Because Im placare does not contain fillers or metal, it will not chip or leave any residue on delicate ceramic or porcelain restorations.
- Q:** Do you have any patients (with natural dentition) sensitive to scaling?
- A:** Im placare, Hu-Friedy's Implant scaler, is made of unfilled resin. Patients who are sensitive to metallic scalers can be scaled with Im placare to achieve optimal results while experiencing comfort throughout the experience.
- Q:** What instruments are you using with your patients with cosmetic/esthetic restorations (veneers, crowns)?
- A:** Im placare and Colorvue are a safe and effective choice for patients with dental implants as well as cosmetic and esthetic restorations. Protect your patient's oral health investment and choose instruments which will reduce alterations to dental implants and aesthetic restorations.

REFERENCES

1. Bollen CM, Papaioanno W, Van Eldere J, et al. The influence of abutment surface roughness on plaque accumulation and peri-implant mucositis. *Clin Oral Implants Res* 7:201-111, 1996.
2. Louropoulou A, Slot DE, Van der Weijden F. Titanium surface alterations following the use of different mechanical instruments: a systematic review. *Clin. Oral Imp. Res* 2011.
3. Sison SG. Implant Maintenance and the Dental Hygienist. *Access Special Supplement*. May/June 2003: 1-13.
4. Yukna RA. Optimizing clinical success with implants: Maintenance and care. *Compendium Supplement* 1993; 15:554-560.
5. Koutsonikos A, Federico J, Yukna R. Implant maintenance. *Journal of Practical Hygiene* 1996:11-15.
6. Atassi, F. Periimplant Probing: Positives and Negatives. *Implant Dent* 2002; 11: 356-362.
7. Misch CE, Perel ML, Wang HL, Sammartino G, Galindo-Moreno P, Trisi P, Steigmann M, Rebaudi A, Palti A, Pikos MA, Schwartz-Arad D, Choukroun J, Gutierrez-Perez JL, Marenzi G, Valavanis DK. Implant Success, Survival, and Failure: The International Congress of Oral Implantologists (ICOI) Pisa Consensus Conference. *Implant Dent*. 2008;17:5-15.
8. Terracciano-Mortilla L: Hygiene and soft tissue management: The hygienist's perspective. In: Babbush CA (ed.): *Dental Implants: The Art and Science*. Philadelphia: W.B. Saunders, 2001, pp. 423-443.
9. <http://www.dentalcompare.com/featuredarticle.asp?articleid=145>
10. Meffert R: Maintenance and treatment of the ailing and failing implants. *Journal of the Indiana Dental Association* 1994;73(3):22-24.
11. Jovanovic SA: Peri-implant tissue response to pathological insults. *Advances in Dental Research* 1999; 13:82-86.
12. Huband ML: Problems associated with implant maintenance. *Virginia Dental Journal* 1996; 73(2):8-11.
13. Dmyliyk, Fox, Moriarty. The Effects of Scaling Titanium Implant Surfaces with Metal and Plastic Instruments on Cell Attachment. *J Periodontol* 1990; 61:491-496

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