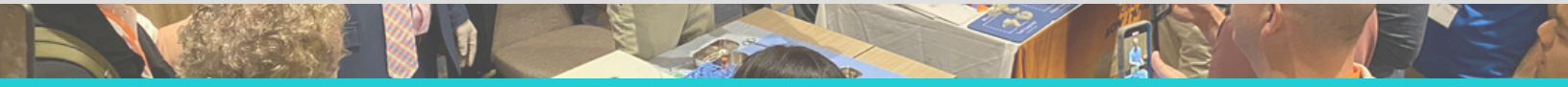
RESNIK IMPLANT INSTITUTE

NEWSLETTER

December 2025 / Vol 32

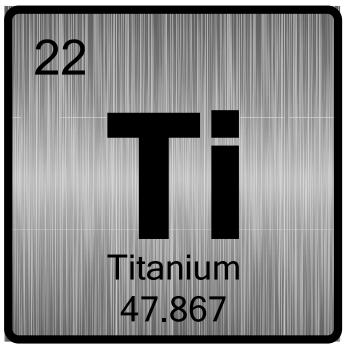


Titanium Ion Release and Particulate Debris from Dental Implants

by Randolph R. Resnik, DMD, MDS

INTRODUCTION

Titanium and its alloys are the most widely used materials in dental implantology because of their excellent biocompatibility, corrosion resistance, and long-term clinical success. For many years, titanium was considered biologically inert. However, modern research has demonstrated that titanium implants can release small amounts of ions and particulate debris under certain conditions. These processes do not negate titanium's overall safety but highlight that implants interact dynamically with the oral environment. Understanding titanium ion release is essential for properly interpreting peri-implant inflammation and avoiding mislabeling these reactions as "titanium allergy."



TITANIUM OXIDE LAYER AND CORROSION

Titanium's biocompatibility depends on a thin oxide layer that forms naturally on its surface. This oxide layer protects the implant from corrosion and limits metal dissolution. In the oral cavity, however, this protective layer is exposed to mechanical loading, fluctuating pH, saliva, bacterial biofilms, and chemical agents. Repeated disruption of the oxide layer may lead to corrosion and the release of titanium ions.

(cont'd. pg 5)

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Randolph R. Resnik, DMD MDS
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TITANIUM OXIDE LAYER AND CORROSION

Although the oxide layer can reform, repeated mechanical and chemical challenges may exceed its ability to fully stabilize. This phenomenon explains why titanium implants, while highly corrosion-resistant, are not completely immune to degradation over time.

MECHANISMS OF TITANIUM ION AND PARTICLE RELEASE

One of the primary mechanisms of titanium release is tribocorrosion, which results from the combination of mechanical wear and corrosion. Tribocorrosion occurs most commonly at the implant–abutment interface, where micromovement is present during functional loading. Even well-designed implant systems experience minor micromotion, which can generate nano- and microparticles.

Chemical factors also play a role. Acidic environments associated with inflammation or bacterial metabolism can destabilize the oxide layer. Fluoride-containing products, particularly at high concentrations, have been shown to increase corrosion under certain conditions. In addition, galvanic interactions between titanium implants and dissimilar metallic restorations may further accelerate ion release.

BIOLOGICAL RESPONSE TO TITANIUM IONS AND PARTICLES

Titanium particles released into peri-implant tissues are readily engulfed by macrophages. This process activates inflammatory pathways and leads to the release of cytokines such as tumor necrosis factor-alpha and interleukin-1 beta. These mediators promote osteoclast activity and may contribute to localized bone remodeling.

Importantly, this response represents a non-specific inflammatory or foreign body reaction rather than a true allergic response. Unlike classic allergy, no prior sensitization is required. This distinction is critical, as many inflammatory peri-implant reactions attributed to “titanium allergy” are more accurately explained by particle-induced inflammation.

SYSTEMIC DISTRIBUTION OF TITANIUM

Trace amounts of titanium ions have been detected in lymph nodes, blood, and distant organs following implant placement. These findings demonstrate that titanium is biologically active rather than inert. However, current evidence does not support clinically significant systemic toxicity from dental implant-derived titanium. The concentrations detected are extremely low, and no consistent systemic disease association has been established.

DISTINGUISHING TITANIUM ION EFFECTS FROM ALLERGY

True titanium allergy appears to be rare. Most reported adverse reactions around dental implants are not mediated by classic immune allergy mechanisms. Instead, they reflect local inflammatory responses to corrosion products and particulate debris. Diagnostic testing for titanium hypersensitivity remains limited and inconsistent, and positive test results do not necessarilyestablish causation.

(cont'd. pg 6)

Clinicians should therefore avoid routine allergy testing in asymptomatic patients and should reserve such investigations for unusual or unexplained cases after conventional causes have been excluded.

CLINICAL IMPLICATIONS

Titanium ion release should be viewed as a contributing factor rather than a primary cause of peri-implant disease. Biofilm accumulation, inadequate maintenance, prosthetic misfit, excess cement, occlusal overload, and patient-related risk factors remain the dominant causes of peri- implantitis. However, titanium particles may amplify inflammation and accelerate tissue breakdown when these factors are present.

From a practical standpoint, minimizing ion release depends on proper implant selection, stable implant–abutment connections, compatible restorative materials, and sound prosthetic design. Gentle maintenance techniques and avoidance of aggressive instrumentation also help preserve implant surfaces.

CONCLUSION: *PRACTICAL TAKEAWAYS*

The key message is that titanium dental implants remain safe, predictable, and highly successful. Titanium ion release and particulate debris are real biologic phenomena, but they are uncommon primary causes of implant failure and should not be overemphasized in routine clinical decision- making.

When peri-implant inflammation is present, clinicians should first focus on the most common and correctable causes: plaque accumulation, inadequate maintenance, residual cement, prosthetic misfit, occlusal overload, and patient-related risk factors such as smoking or a history of periodontal disease. In the vast majority of cases, addressing these factors will resolve or stabilize the condition without the need to attribute symptoms to the implant material itself.

Titanium ion release should be considered only as a secondary or contributing factor, particularly in cases that are unusual, persistent, or refractory to conventional treatment. Even in these situations, ion-related inflammation is not the same as a true titanium allergy. Routine allergy testing or implant removal is rarely indicated and should be avoided without compelling clinicaljustification.

From a practical standpoint, dentists can reduce the risk of titanium particle release by using well-designed implant systems, ensuring stable implant–abutment connections, avoiding dissimilar metal coupling when possible, and employing gentle maintenance techniques. Clear communication with patients is essential: explaining that inflammation is usually related to hygiene, biomechanics, or prosthetic factors helps prevent unnecessary concern about implant materials.

In summary, awareness of titanium ion release should support better diagnosis and treatment—not undermine confidence in dental implants. A systematic, evidence-based approach allows clinicians to manage peri-implant disease effectively while maintaining titanium implantsas the gold standard of care.

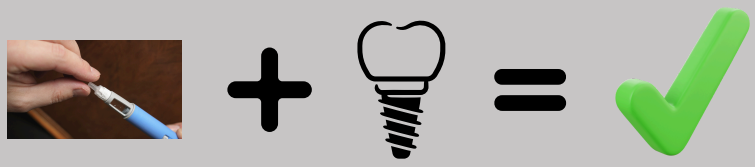
(cont'd. pg 9)

RESEARCH ARTICLE OF THE MONTH

CAN GLP-1 RECEPTOR AGONIST MEDICATIONS (such as a semiglutide) INFLUENCE DENTAL IMPLANT HEALING OR LONG-TERM SUCCESS?

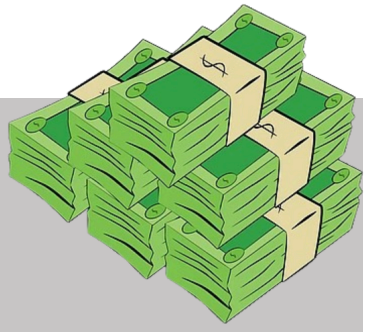
Answer:

Recent 2025 reviews suggest that GLP-1 receptor agonists may reduce periodontal inflammation and support bone remodeling in preclinical and animal studies. However, clinical evidence in dental implant patients is still limited, and these findings should not be used to predict improved implant outcomes. At present, this research is best viewed as an early indication of where implant-related biologic science may be heading, rather than a factor that changes current clinical practice.



Paras Ahmad, Nathan Estrin, Nima Farshidfar, Yufeng Zhang & Richard J. Miron. Glucagon- Like Peptide 1 Receptor Agonists (GLP-1RAs) Improve Periodontal and Peri-Implant Health in Type 2 Diabetes Mellitus. Journal of Periodontal Research, Volume 60, Issue 5, pages 450-465, May 2025. DOI: 10.1111/jre.13410.

LEGAL QUESTION OF THE MONTH



WHAT IS AN "EXCESS VERDICT" IN A MALPRACTICE LAWSUIT?

ANSWER:

In professional liability cases, jury verdicts can be unpredictable and, in some instances, may exceed the limits of a dentist's malpractice insurance policy. An "excess verdict" refers to the portion of a judgment that exceeds the maximum coverage provided by the malpractice carrier. For example, if a dentist carries a malpractice policy with a $1 million limit and a jury awards $2.5 million in damages, the remaining $1.5 million represents an excess verdict. Depending on state law, practice structure, and corporate organization, this excess amount may become the personal responsibility of the dentist, the professional entity, or both.

Dentists concerned about the risk of excess verdicts may consider increasing policy limits (e.g., to $3–5 million). In addition, when a malpractice claim carries a realistic risk of an excess verdict, it is strongly advisable for the dentist-defendant to retain independent personal counsel to ensure that their individual interests are fully protected throughout the litigation process.

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END OF YEAR SPECIAL

by Ethar ElShennawy, BDS, MSc
Radiology Research and Development Specialist

Battling the "Grainy" Scan – TheRole of mA and Signal-to-Noise Ratio

Have you ever acquired a CBCT scan for an implant plan, only to find the image looks "grainy" or "speckled"? This graininess is technically called Image Noise.

In implant dentistry, high noise masks low-contrast structures. It can make the cortical border of the Inferior Alveolar Canal (IAC) disappear or make the trabecular bone pattern look like a blur, complicating your drill depth planning. To fix this, we have to understand the Signal-to-Noise Ratio (SNR).

- **Signal:** The useful X-ray photons that pass through the patient and hit the detector.
- **Noise:** Random quantum mottle.
- **The Goal:** You want a **High SNR** (lots of signal, little noise).

The Solution: Milliamperage (mA)

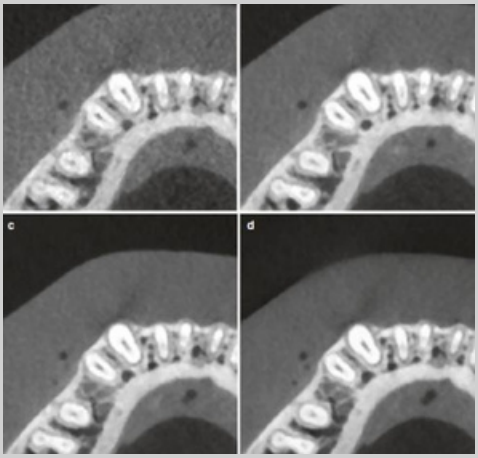
The Milliamperage (mA) setting on your CBCT machine controls the quantity of X-ray photons produced.

- **Low mA:** Fewer photons → Low Signal → High Noise (Grainy image).
- **High mA:** More photons → High Signal → Low Noise (Clear, smooth image).

Adjust your mA based on Patient Size (Body Mass).

- **For Large/Heavy Patients:** Their density attenuates more X-rays, meaning fewer photons reach the sensor. If you use standard mA, the result is a noisy, non-diagnostic scan. **You must increase the mA** to force enough signal through to the detector to get a clean image of the implant site.
- **The Trade-off:** Increasing mA improves image quality (increases SNR) but linearly increases the patient's radiation dose.

Key Takeaway: Don't use a "one-size-fits-all" setting. If you are scanning a large patient and need to see fine details (like the IAC or a thin buccal plate), **increase the mA**. The reduction in image noise will allow for safer, more precise implant planning.



Effect of increasing mA on image noise.

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MASTERING THE BUSINESS OF DENTISTRY

ROGER P. LEVIN DDS

Hello Readers,

I am very excited to provide the latest installment of "Mastering the Business of Dentistry" in the Resnik Implant Institute newsletter. I have great respect for the educational importance of the Institute, and I sincerely hope that I will be able to contribute ideas on the business of dentistry and increasing practice production that will benefit all students and alumni. My own career as CEO of Levin Group began with one question that I am still asking 40 years later – how do you increase production in a dental practice while reducing stress? Based on this critical question, I look forward to providing more practical recommendations that can be implemented quickly to benefit all your practices.

All the best,
Roger

THREE WAYS TO INCREASE IMPLANT PRODUCTION RAPIDLY

INTRODUCTION

Over the years, Levin Group has received many calls regarding how to increase production practice. Recently, the number of calls, texts, and emails has increased. New challenges such as increased competition, flat or declining insurance reimbursements, and staffing challenges (including the increased cost of compensation) have caused more dentists to seek methods for increasing production related to implants.

Here are **three** strategies that will have a quick effect and make a real difference throughout your career.

1 *REACTIVATE ALL INACTIVE PATIENTS*

An inactive patient is any patient without their next appointment. In the past, the term "inactive patient" referred to a patient that had not been in for 18 months. This is still a widely held part of the model when creating a practice valuation. However, in terms of practice management, Levin Group defines an inactive patient as any patient without their next appointment for a few important reasons.

If patients are overdue for appointments, then the practice has a loss of production, even if that patient eventually returns to a normal cycle. However, many inactive patients never return to the practice, and their families often leave with them. This can cost a practice millions of dollars of revenue. Additionally, patients without their next appointment are less committed to the practice. They tend to refer other patients less frequently and are also less likely to accept recommended treatment.

SOLUTIONS

It is imperative to have a process in the practice to reactivate all inactive patients. Think of this as trying to prevent the loss of a patient. One way to approach this is to schedule time every day to reach out to inactive patients. Start with an initial phone call and follow it with a series of texts and emails over the next few weeks. The results are amazing. You will find that the majority of these patients will make appointments and appreciate you for reaching out to them.

(cont'd. pg 12)

2 RECOMMEND ALL POTENTIAL TREATMENT NOW

Many dentists are conservative, and some are even paranoid about recommending too much treatment to a patient at once. We typically recommend addressing a patient's most urgent needs such as a fractured tooth and shying away from their wants, such as aesthetic dentistry, tooth whitening, mouthguards, night guards, orthodontic treatment, and implant treatment.

Levin Group believes that practices should perform a complete diagnosis on every patient. By completing what we call The Five Phase Exam, you will identify all periodontal, restorative, cosmetic, implant needs a patient may have. For example, some patients may need mouth guards, or orthodontic care. Others have missing teeth and would benefit from implants. Practice should take the approach of engaging patients in a conversation about diagnosis to both educate and motivate them.

Patients like to have a complete understanding of all possible dental treatment, even if they don't plan on immediately accepting it. We have seen practice production rise by 10 to 15% just by increasing the level of recommendations for treatment. In an era where patient financing is available, patients are often willing to have complete treatment given that they can access additional lines of credit through various options. In fact, this is actually a great time to be offering comprehensive treatment to patients along with interest-free loans if they need it.

SOLUTIONS

Diagnose all possible dental treatment for patients who have both need-based and elective opportunities. You should develop a conversational style of educating the patient about the findings and work toward creating a high-level of trust that results in either complete acceptance of the comprehensive treatment or phased treatment over several years. This can help to increase practice production and patients will be extremely happy. Don't forget to inform patients about financing. This will create a level of comfort and result in much higher levels of case acceptance.

3 PURSUE STRATEGIES FOR GETTING NEW PATIENTS

Remember that your patients like you, and they have families and friends that can be motivated to join your practice. However, referrals aren't top-of-mind for patients, so you must ask. When you do, you'll find that many of them are more than happy to invite other people to join the practice. Over time, this will help to increase the number of new patients coming to a practice.

Keep in mind that the average new patient has a 200% – 300% higher financial value to the practice than a current active patient. So, when new patients are not introduced into the schedule on a regular basis, overall production will go flat. This means that practice will be dependent only on active patients that have a much lower average production per current active patient and not benefit by having a certain number of new patients at 2 to 3 times the average production.

SOLUTIONS

Build a new schedule and block out the number of new patient appointments needed in order to hit an annual practice goal. Start by analyzing the average production per new patient in your practice and determine how many new patients you need per month along with your current active patients to hit your monthly goal leading to hitting your annual goal. Practice management and practice success is about knowing your numbers, understanding what they mean, and building a schedule that is in the best interest of your practice and patients. New patients are a critical factor in quickly increasing practice production.

SUMMARY

Dentistry is a business, and it should be operated accordingly with the goal of increasing production and revenue. The three recommendations above will help you to increase production quickly, which always leads to increased profitability.

ROGER P. LEVIN, DDS

Roger P. Levin, DDS is the CEO and Founder of Levin Group, a leading practice management consulting firm that has worked with over 30,000 practices to increase production. A recognized expert on dental practice management and marketing, he has written 67 books and over 4,000 articles and regularly presents seminars in the U.S. and around the world.To contact Dr. Levin or to receive his Practice Production Tip of the Day, visit www.levingroup.com or email rlevin@levingroup.com.

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CONCLUSION CONT'D

Titanium dental implants are safe, effective, and highly successful for the vast majority of patients. However, they are not completely inert. Small amounts of titanium ions and particlescan be released over time, especially at the implant–abutment connection and in inflamed environments.

These particles can stimulate local inflammation, but this process is not the same as a true titanium allergy. In most cases, peri-implant problems are caused by plaque, mechanical overload, or prosthetic issues rather than the implant material itself. Understanding titanium ion release helps clinicians better explain peri-implant inflammation, avoid unnecessary implant removal, and focus treatment on the true underlying causes.

Titanium remains the gold standard in implant dentistry, and awareness of ion release shouldimprove—not undermine—clinical decision-making.

References

1. Swalsky P, et al. The systemic and local interactions related to titanium implant corrosion and hypersensitivity reactions. Int J Implant Dent. 2024;10:78.
2. Fretwurst T, et al. Is metal particle release associated with peri-implant bone destruction? J Dent Res. 2018;97:259–265.
3. Noronha Oliveira M, et al. Can degradation products released from dental implants affectperi-implant tissues? J Periodontal Res. 2018;53:1–11.
4. Souza JCM, et al. How do titanium and Ti-6Al-4V corrode in the presence of fluorides? JDent Res. 2015;94:472–480.
5. Olmedo DG, et al. Titanium transport and accumulation after dental implants. Biomaterials.2003;24:2383–2392.
6. Müller-Heupt LK, et al. Diagnostic tests for titanium hypersensitivity in implant dentistry. Int JImplant Dent. 2022;8:28.

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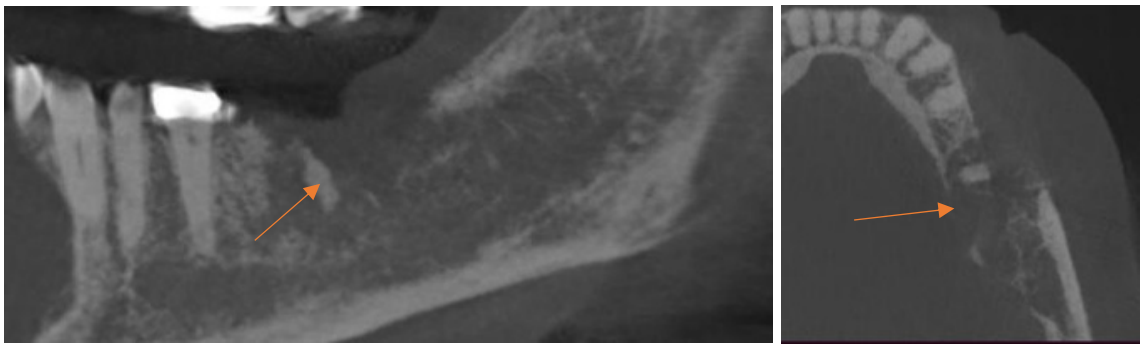

Case of the Month: Osteoradionecrosis (ORN) A patient with a history of head and neck cancer treated with radiation therapy (>60 Gy) presents with exposed bone in the posterior mandible. They are inquiring about the possibility of implant rehabilitation.

Radiographic Picture: Osteoradionecrosis often presents a complex and sometimes subtle radiographic appearance, particularly in its early stages. On a CBCT or panoramic image, you should look for the following hallmark features:

- The "Moth-Eaten" Appearance: This is the classic presentation. Look for diffuse, ill-defined areas of radiolucency interspersed with areas of radiopacity (sclerosis). It lacks a clear border, indicating an aggressive, infiltrative process.
- Cortical Destruction: Unlike localized osteomyelitis, which might show periosteal reaction (onion-skinning), ORN typically shows cortical plate destruction *without* significant periosteal reaction. The bone simply creates a "punch-out" defect.
- Sequestra Formation: You may identify "islands" of dead bone (radiopaque) floating within the radiolucent defects. These are sequestra that have separated from the vital bone.
- Pathological Fracture: In advanced cases, the destruction of the inferior border of the mandible can lead to spontaneous fractures.

Clinical Significance: For the implant surgeon, identifying the history of radiation and these radiographic signs is critical.

1. The "3 H" Environment: Irradiated bone is Hypoxic, Hypocellular, and hypovascular. This significantly impairs the bone's ability to remodel around an implant (osseointegration) and to heal after the surgical trauma of drilling.
2. Risk of Precipitating ORN: The most significant risk is not just implant failure, but that the surgical trauma itself acts as the trigger event that converts stable irradiated bone into active osteoradionecrosis.
3. Dose Dependence: The risk is dose-dependent. Generally, bone that has received >50 Gy is considered high risk.
4. Contraindications: While not always an absolute contraindication, implants in areas of active ORN are strictly contraindicated. In healed sites with high radiation history, adjunctive therapies (like Hyperbaric Oxygen) or alternative rehabilitation strategies should be strongly considered before surgery.

KEY 2026 MARKETING STRATEGIES

by Mark Romano, CEO of NOW MEDIA

Sharing the key trends and strategies for dental marketing in 2026, which emphasize personalized, patient-centric digital experiences, leveraging new technology, convenience, and value.

Key 2026 Strategies:

- Hyper-Personalization: Use AI for targeted outreach and reminders.
- Video Dominance: Prioritize short-form video (TikTok/Reels) for storytelling, team connection, and FAQs.
- Authentic Social Proof: Utilize genuine patient testimonials and user-generated content.
- Seamless Digital Experience: Ensure fast, mobile-optimized websites with easy online booking, live chat, and quick responses.
- Hyper-Local SEO: Dominate local search through content emphasizing community involvement and services.
- Tech Showcase: Highlight advanced technology (e.g., 3D imaging) and patient benefits (e.g., faster results).
- Cost Transparency: Clearly promote financing and payment options (like CareCredit) to address patient out-of-pocket costs.
- Community Focus: Actively showcase local involvement to build patient loyalty.

Areas to Ditch/Evolve:

- Replace generic, cookie-cutter content with authentic, customized approaches.
- Substitute forced, scripted testimonials with authentic transformation storytelling.
- Optimize the entire patient journey, from initial click to follow-up, to be seamless and intelligent.

Please feel free to reach out to me directly at (858) 352-8474 with any questions or to get a free marketing audit.

Happy New Year,
Mark Romano

RESNIK IMPLANT INSTITUTE

NEMER'S WORDS OF *Wisdom*

By Nemer Hussein, CDT
Lab Technician to The Stars!!

DIY Multi-Unit Abutment Handle Holder

Problem: For immediate load cases, almost all titanium abutments (chimneys) will require modification prior to PMMA prosthesis fixation (Figure # 1). When cutting the abutments, significant heat will be generated. Unfortunately, no implant companies manufacture MUA holders.

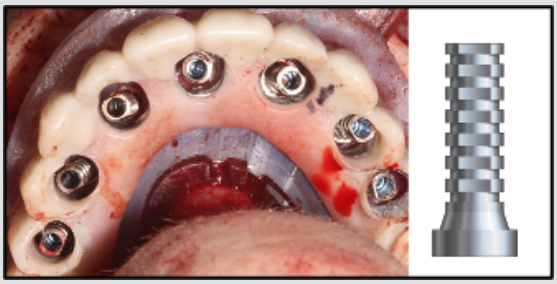

Figure 1: PMMA Prosthesis & Titanium Abutments

Solution: The following is a fast and economical technique to make a DIY holder.

Step 1: Cut the ends off of a sharpie marker and remove all ink (Figure 2)

Figure 2: Hollow Sharpie Marker

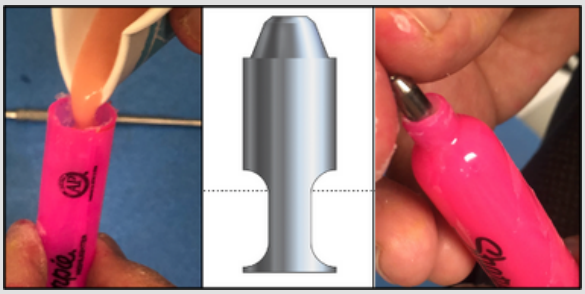

Figure 3: Fixation of MUA Analog

Step 2: Fill empty sharpie with self-cure repair acrylic, place MUA analog into top of sharpie and allow the acrylic to cure, thus securing the analog (Figure 3)

Step 3: The sharpie marker is now a MUA holder. The Titanium abutment is secured to the analog and the abutment is modified with a separating disc. (Figure 4)

Figure 4: MUA holder and Abutment Modification

See what past graduates are saying...

Dr. Resnik and his team are amazing! I took an extensive implant curriculum about 12 years ago and only placed the straight forward single or double implants since then. If you want to raise your implant game for your patients, your practice, and yourself - you don't have a choice: SIGN UP TODAY and you won't regret it! Cheers! **-- *Dr. Chad Yenchesky***

The course gives you the confidence you need to place dental implants and allows you to meet like minded colleagues and instructors. \ Dr. Resnik is a great lecturer, keeps things interesting and presence scientific research to back up his claims. Most importantly the course will provide you with cook book instructions and protocols for everything you will encounter during your implant journey, from placement, to suture line opening to dealing with infections, consent form templates, medical clearance templates...etc. \. Strongly recommend! **-- *Dr. J Chen***

This course gives you a comprehensive introduction to placing single, multi, and full arch implants mostly using guided techniques. This course if for anyone at any level. The audience is made up of beginners who have never placed an implant (like myself) to the well seasoned general dentists/ OMFS who has had years of experience placing implants. Best money I have spent to forward my career. **-- Dr. *Natalie Sigwart***

I finished the 5-course curriculum just this past year. Dr. Resnik and the faculty are hands down the best in the business. The Resnik program gives you the education, tools, and the confidence to be proficient at implant dentistry. This curriculum gives you the knowledge and the skills to take your practice to the next level! **-- *Dr Michael Buck***

After 30 years of practicing dentistry, my only regret is that I did not get involved with implant dentistry earlier in my career, specifically with the Resnik Institute. I never realized how rewarding and exciting for both me and my practice this could be. Dr. Randy Resnik and his entire staff are a major factor in this testimony! **-- *Dr. Douglas Adel***

Dr. Resnik has an amazing depth of scientific based knowledge concerning his subject. He builds a very large zone of safety. If one stays within this zone the success rate will be maximized and complications will be extremely rare. **-- *Dr. Terry Rigdon***

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