

DRS. PALERMO-EDWARDS & CACCHILLO

PROBING THE PRACTICE



A newsletter brought to you by **Drs. Palermo-Edwards & Cacchillo** to share news and provide education to ensure our offices continue to “measure up”.

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A NOTE FROM THE DOCTORS

Happy 2018!

With implant treatment being one of the most common procedures that we see patients for, we wanted to have a two-part newsletter dedicated to treating the most common problems that can arise with them. We hope that this article written by Dr. Brad Purcell, is an education tool for you to utilize in your practice. As always we thank you for continuing to entrust your patients to us!

Lisa A. Palermo-Edwards • David A. Cacchillo • James M. Palermo

FREE CE CREDIT:

IMPLANT ABUTMENT SCREW LOOSENING: PART II MANAGEMENT

Loosening of the abutment screw is frustrating. Screw loosening prior to the internal connection approached 30% over the first 5 years after implant placement.¹ Previously, in Part I of this article we discussed the etiologies of screw loosening. In this part of the article we discuss how to manage loose abutment screws. There are many ways/methods that can be used to accomplish this, however I am sharing the methods I most commonly use.

SCREW LOOSENING

This discussion is primarily going to focus on single crown screw loosening. If a patient presents with an implant restoration that is loose then several things come to mind:

- 1) has the implant failed 2) is it the abutment screw 3) is it screw retained?

HAS THE IMPLANT FAILED?

When an implant restoration is loose it can be painful and have suppuration. This can lead us to think that the implant has failed. However, both also occur when the implant is integrated, but the abutment screw is loose. First, if an implant restoration is loose, DO NOT WATCH, it can lead to implant failure. All loose implant restorations need to be addressed as soon as possible.

Statistically speaking it is 10X more likely for an abutment screw to become loose, than an implant to fail once it has integrated. Therefore, when encountered with these clinical signs do not automatically send it to a surgeon assuming the implant has failed. It is likely a restorative problem.

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FREE CE CREDIT: IMPLANT ABUTMENT SCREW LOOSENING: PART II MANAGEMENT

First take a radiograph, specifically a periapical. If the implant has obviously failed, it is best to remove the restoration so that the implant can be removed. If the implant appears to be integrated, assume that it is and assume the abutment screw is loose. The next thing you need to determine is the type of abutment under the crown. Is it a one-piece abutment or a two-piece abutment? Today the majority of abutments are two-piece abutments. This means that the abutment and the screw are separate (**Figure 1**). A one-piece abutment means that the screw and the abutment are joined (**Figure 2**).

Figure 1

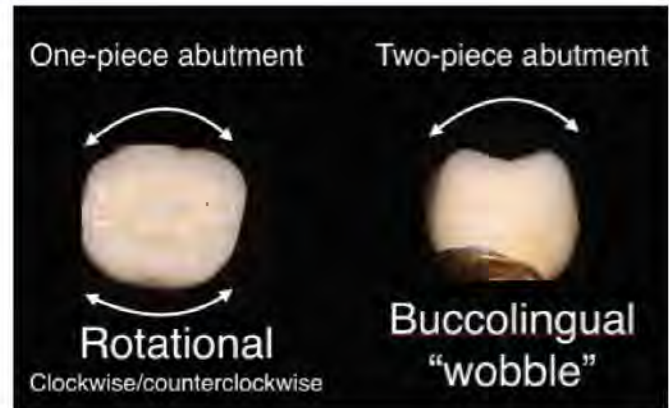


Figure 2



It also means that the abutment is non-engaging; i.e. it does not engage the "hex." How would you know the difference and why does it matter? First analyze how the crown/abutment complex

Figure 3



is moving. From an occlusal view if it is rotating clockwise and counterclockwise it is a one-piece abutment because the entire crown and abutment are rotating. If the crown/abutment complex is "wobbling" in a buccolingual direction then it is a two-piece abutment (**Figure 3**). If the abutment is a one-piece abutment; i.e. it is rotating clockwise and counterclockwise then do not look for a screw or screw head. The abutment was tightened down with a socket type of driver. This type of abutment was popularized by Straumann and is called the Solid Abutment. Other systems utilized this type of abutment as well. A one-piece abutment cannot be retightened. The entire crown/abutment complex needs to be re-restored. Open the proximal contacts and rotate the entire crown/abutment complex out to remove the abutment. If it is a Straumann implant, do not try to section the crown because the crown margin is on the implant platform and the implant will be permanently damaged. Therefore rotate the crown/abutment complex out and make a new impression to re-restore the implant; ideally, using a two-piece custom abutment.

If the crown/abutment complex "wobbles" buccal and lingual, then it is a two-piece abutment. Access the screw through the occlusal of the restoration. Obviously, if it is screw-retained, then access the screw through the access hole. Utilize a paralleled periapical radiograph to determine the mesial-distal emergence of the screw

access. From the gingival, view where the restoration emerges clinically to aide in determining the buccolingual access point. Hopefully there is Teflon, cotton, or PVS over the screw to safely access the screw without damaging it. A new abutment screw should be placed with the appropriate amount of torque and the screw access filled with Teflon and typically composite resin. Then adjust the occlusion and proximal contacts as necessary (discussed in Part I of this article).

Many scenarios can happen during accessing the screw that are outside the scope of this article. However, the first thing one needs to do is assume it is the abutment/crown complex that has the failure unless proven otherwise and then one needs to recognize which type of abutment it is. A step-wise approach needs to be performed to prevent a frustrating appointment.

References

1. Papaspyridakos P, Chen, C, Chuang S, Weber H, Gallucci G. A systematic review of biologic and technical complications with fixed implant rehabilitations for edentulous patients. IJOMI. 27(1) 2012.

Questions

1. **Abutment screw loosening in the first five years can be as high as:**
 a. 30% b. 45% c. 90%
2. **If a patient presents with a loose "implant," which should be considered?**
 a. the implant has failed
 b. the abutment screw is loose
 c. both a and b
 d. neither a or b
3. **"Watching" a loose abutment screw is acceptable. True or False?**
 a. True b. False
4. **When one-piece abutments are loose they present as a wobble. True or False?**
 a. True b. False
5. **When two-piece abutments are loose they present as a wobble. True or False?**
 a. True b. False

KEY: 1 A 2 C 3 B 4 B 5 A

MINI RESIDENCY SERIES

4TH ANNUAL IMPLANT MINI RESIDENCY SERIES

Wanting to enhance your skills, increase patient acceptance and learn the tips and tricks for restoring single, multiple, hybrid, and denture supported implants? Then this course is what you need! Here is what one of our participating doctors had to say about this course.



"I've truly enjoyed Dr.'s Palermo-Edwards, Cacchillo, and Dr. Purcell and their commitment to educating the general dentist on the fascinating world of dental implants! Adding predictable implant options and systematic treatment sequences to my practice has changed my philosophy on restoring the patient's mouth to its absolute best. From single units to implant hybrids, my 3 years in this Implant Mini Residency has raised my practice's production ceiling to incredible heights I've never achieved before!"
 — Dr. Brian Waggle

28 hours of CE. All experience levels are welcome!

Please call the office for registration information. Seats are still available!

COMMUNITY SUPPORT

NC4K REINDEER RUN

PEC was the NC4K REINDEER RUN 5K PRESENTING SPONSOR for its 3rd year in a row! You could see our dedicated staff in the 5k, at the water station, and at the finish line. We truly have been blessed to be part of such an amazing event!



PELETONIA

Dr. Cacchillo and his family rode again this year in Pelatonía. Approximately 8,000 riders participated and nearly \$25.5 million was raised for cancer research and awareness. What an impact this event has on the lives of the Columbus Metro area residents and their families!



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UPCOMING EVENTS

2018 Dental Implant Mini Residency Course:
1/19/18, 6/22/18, 7/20/18, & 8/24/18

Periodontal Seminar for the Dental Hygienist: 4/26/18

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D E N T A L

OFFICE ANNOUNCEMENTS

Starting in 2018 all course invitations and special events will be emailed to each office's main email address. **Please call the office today if you have recently made any changes to your office's email address.**



DR. PALERMO RECOGNIZED

Dr. James Palermo was recognized by The Ohio State University Division of Periodontology. He received the **2017 Periodontal Achievement Award** for his exceptional contributions of service to the College of Dentistry and of teaching the art and science of periodontics.



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