

人工植牙的另類思考

Going beyond current boundaries in implant maintenance: What we can learn from NASCAR pit stops By: AO Fellow Mehrdad Favagehi, DDS, MS, Academy News Editor

Patients ask how long their implants will last. Successful implants should last a lifetime. What about implant restorations? Is it our goal to create durable implant restorations that last forever as well? We manufacture super strong, monolithic zirconium implant prosthesis reinforced with titanium substructures that could easily last for a millennium. Future anthropologists will be in awe of the strength and durability of current implant prosthesis. Yet still, many dentists avoid the word “final” when describing any restoration or prosthesis. That’s because even the most durable implant restorations may need to be changed for myriad biological and mechanical reasons. Patients change as they age. Restorations should be designed to be maintained, adjusted, or replaced to accommodate changes over time. Our mission in implant dentistry is to provide patients with lifetime rehabilitation, and that doesn’t necessarily mean an implant restoration that could last a lifetime. In fact, for some patients, especially younger implant patients, an adjustable or replaceable implant restoration may be more beneficial than a durable restoration that can last 50 years. Scott D. Ganz, DMD, a pioneer of using CBCT in guided implant surgery, is known for stating that “It’s not the Scan, Its the PLAN!®” which determines success with the digital workflow. The same could be said about implant restorations. It’s not necessarily the restoration itself that needs to last a lifetime, but our rehabilitation plan that needs to serve patients throughout their life. Digital technologies are revolutionizing every aspect of implant dentistry. Going beyond the current boundaries of implant dentistry, we can employ technology to shift focus away from expensive, non-adjustable, durable implant restorations to seek less expensive restorations designed to be easily removed for repair, replacement, or routine maintenance. With a new patient scan we can update a digital twin of the original restoration and deliver a “factory-clean,” new replacement for aging restorations at regular maintenance intervals. Maintenance and serviceability have been priorities in many high-tech fields such as aeronautical engineering and the modern car industry. In Formula One or NASCAR car racing, high efficiency maintenance pit stops are widely recognized as a key to success. The average NASCAR pit stop times have shortened significantly over the years as NASCAR stock cars have been redesigned for more efficient maintenance and part replacement. For example, according to

fantasyracingcheatsheet.com, the Next Gen NASCAR stock car introduced in 2022, only has one lug nut on its tires, compared to five lug nuts on previous NASCAR vehicles. As a result, the average NASCAR pit stop in the 2023 season was a mind blowing 12.698 seconds. Maybe the “Next Gen” implant prosthesis should be designed to streamline maintenance pit stops to include repair and economical replacement of implant restorations in the aging patient. On March 8, 2024, the Academy’s revered annual President’s Reception will be held at the exciting NASCAR Hall of Fame in Charlotte, NC. As you experience simulated head-to-head NASCAR Pit Stop competitions with other attendees, please think of all that implant dentistry can learn from NASCAR. The Editor’s Editorial is intended to contribute to the dialogue on issues important to implant dentists. The views expressed in the editorial do not necessarily reflect the policy of the Academy of Osseointegration or its board of directors. To provide feedback about this edition, or contribute as a guest author, please contact me at mfavagehi@yahoo.com. We will endeavor to publish pertinent comments or views when space permits.

Acknowledging that implants (almost) never fail

By: Lambert J. Stumpel, DDS; Academy News Guest Contributor

Many years ago, it started to dawn on me that we, as a profession, at times, were not telling the truth. To ourselves and to our patients. This was and is really hurting the relationship we have with our patients, who are also our (paying) customers.

Interestingly, this misleading narrative hasn’t hindered communication among dental professionals. Colleagues seem to share an unspoken understanding of the reality, allowing them to communicate although collectively misrepresenting it. However, the same cannot be said for the patient-dentist relationship. I have tried to bring this up to those who want or had to listen to me, but this is a small group. (Maybe for a good reason). There was some progress in spreading the word, so to speak, during the last AO Annual Meeting in Phoenix. I had drinks with some friends, and one of them was Clark M. Stanford, DDS, PhD, MHA, past president and current editor of the Journal of Oral and Maxillofacial Implants (JOMI). He was so kind to capture the discussion and write a very thoughtful editorial in that journal. Now Editor Favagehi is allowing me space in the newsletter to shine another light on this subject; here we go. Please! Can we stop saying that dental implants fail, because in reality, they almost never do. Still as a profession we talk and write about failing implants. “Failed implants” yields an impressive number in PubMed searches. The implant is most of the time made from metal, as long as the metal does not break or bend the implant is similar to when it came out of the manufactures packaging. Per definition it did not

fail. What we really mean is that the bone which was holding on to this implant has stopped holding on to it, or it never did in the first place. We as professionals know that, but our patients do not. The emphasis is on the emotional impact of such communication. While the clinical outcome remains the same, disclosing the truth empowers the patient to take ownership of the problem. They are not burdened with the perception of purchasing a defective product but rather understand that **their body's response needs attention**. What happens if we tell the patient that their implant failed. In their mind they think; that is nice, you sold me the implant and it failed. I bought something that is defective, the seller should take responsibility to fix that. This will make an emotionally charged situation even more difficult. This contrasts with if we tell them what really happened. "Mr. Jones **your bone did not hold on to the implant and your body is rejecting it.**" Now this patient will own the problem; it's actually his or her bone that is responding unfavorably. Although the clinical outcome is the same, the emotional outcome is vastly different. You are not the seller of a defective product, but you are the doctor who is going to help to get the patient's bone to do a better job the next time. You can still do that for free, at a reduced fee or full charge, but you will see that the relationship you have with the patient is so much better. To plant a seed in the patient's mind at consultation I say, "Mrs. Jones, **dental implant therapy is very successful but with almost everything in life it is not 100%.**" At first, we have about a 92% success rate. You see the implant is made out of metal, it is dumb, it cannot do anything, it is our biology that has to do the job for the bone to fuse with the implant and maintain that over the years. So, what happens if your bone does not fuse with the metal, we take the implant out, wait three months and place a new implant again. At that time our biology is about 85-90% successful." In conclusion, dear colleagues, if we want to keep telling ourselves that implants fail, please do. Although I hope that editors, reviewers, and authors adopt the correct words to describe what they see happening. At least be smart and tell your patients the truth; it will make the relationship we have with our patients better and at the same time prevents us from shooting ourselves in the foot. Have fun!