DECIDING WHO SHOULD PLACE IMPLANTS

An Interview with Dr. Stuart J. Froum

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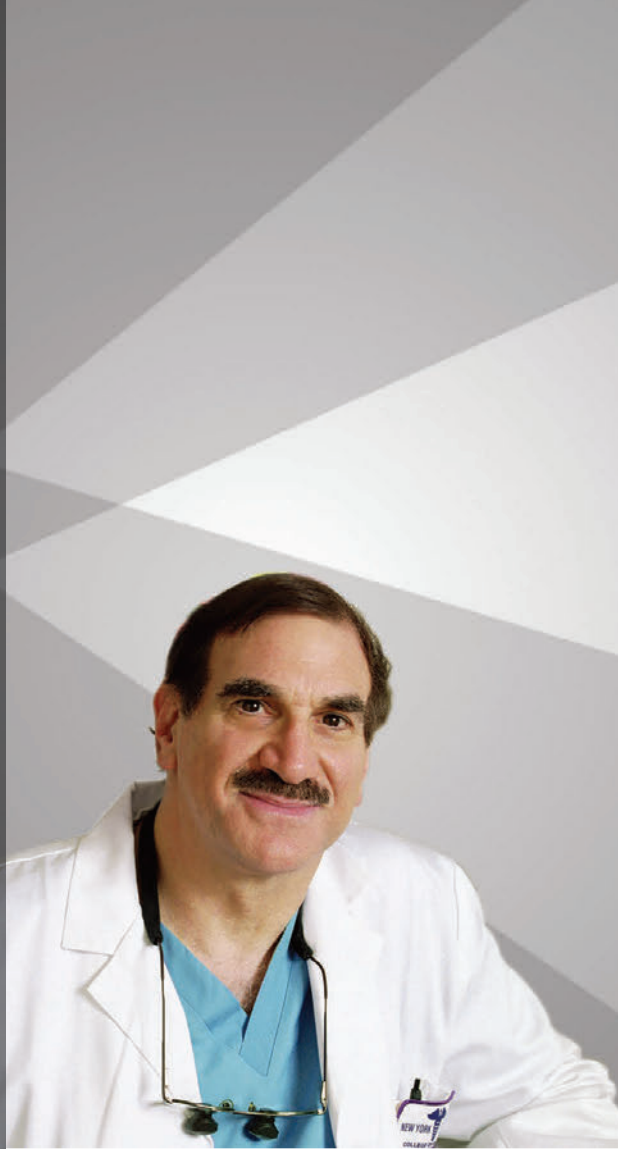

Dr. Froum is a clinical professor and the director of clinical research at the department of periodontics and implant dentistry at New York University Dental Center. He is also the president of the American Academy of Periodontology. The Brooklyn-born doctor and implant expert keeps an active, thriving practice in Manhattan.

Surgical outcomes are very difficult to predict. How do you approach this topic with a patient?

Froum: It's true that implant placement outcomes are difficult to predict. Therefore, risk assessment, careful treatment planning, an evaluation of local conditions (i.e., the quality and quantity of bone, soft tissue condition, biotype, condition of adjacent tooth or implant) and many other factors can increase the predictability of a successful implant. I use the word success instead of survival because a surviving implant is one that integrates but may not be up to the patient's aesthetic requirements. Therefore, it would not be considered a success.

One key factor affecting implant success is the patient's health and healing capacity. Poorly controlled diabetes, autoimmune diseases and bone deficiencies like osteoporosis all may compromise healing. All of these factors can be evaluated by taking a thorough medical and dental history, clinical examination, computerized axial tomographic (CAT) or cone beam (CB) scan evaluation in addition to a waxed-up model of the patient's dentation replacing the missing tooth or teeth. Ideal placement of the implant then can be planned, but much depends on the experience of the operator in recognizing less than ideal conditions. The surgeon must also have knowledge in performing procedures (such as bone or gum grafts) prior to or at the time of implant placement to compensate for deficiencies. An experienced clinician analyzes all the factors that can affect success or failure, and he or she explains the predictability of a successful outcome to the patient.

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The American Association of Oral and Maxillofacial Surgeons (AAOMS) recently published an ad campaign with the tagline, "Oral and maxillofacial surgeons: The experts in face, mouth and jaw surgery." This quote regarding implants is from their website: "Dental implant surgery is, of course, surgery, and is best done by a trained surgeon. Your oral and maxillofacial surgeon has the specialized education and training in the complexities of the bone, skin, muscles and nerves involved, to ensure you get the best possible results." How do you respond to this as a periodontist?

Froum: There is no doubt that oral and maxillofacial surgeons are skilled dental professionals. However, regarding the quote from their website, I would say the same is true of a periodontist's training. Periodontists are just as qualified to perform dental implant surgeries, and we specialize in these delicate procedures. In fact, when it comes to bone or bone-substitute grafting, soft tissue augmentation, guided bone regeneration and maintaining the existing alveolar bone, a periodontist may be the best trained specialist. Periodontists are experts in root coverage and replacing deficient bands of keratinized tissue via various forms of soft tissue grafting. Periodontists also save teeth with regenerative procedures using bone grafts, biologics and membranes to regrow bone and soft tissue. No group of dental specialists is better trained, or performs more of these procedures.

Should implantology be a recognized specialty by the ADA?

Froum: Since implantology — the placement or restoration of implants — is part of the scope of practice of every dentist, and because there is no standardized training for these procedures, certifying a dentist as an implantologist or implant specialist would be difficult. Many dentists go for a weekend course or a mini-course for several weekends and then place implants in single and multiple edentulous areas. It is the robust periodontal training program in which three years are devoted to studying anatomy, risk evaluation, principles of healing and the factors affecting proper implant placement that provide periodontal students with a high level of competency. This means periodontists can diagnose when and where implants have high or low predictabilities of success. Periodontists are trained in the prevention and treatment of implant complications. The latter, according to research, occurs with about 50 percent of implants placed within 10 years of restoration. Periodontists are also trained to manage complications that occur during implant placement. In other words, a periodontist truly is an implantologist since he or she has the most robust, specialized training in placing and maintaining implants.

Should the placement of implants be performed only by dentists who have completed some standardized curriculum regarding surgical placement?

Froum: Anyone who places an implant should be trained to competency. Placing an implant is more than inserting a screw. There is a person on the other end of that screw. Here's another perspective to consider. How many general physicians perform hip or knee replacement surgery or heart transplants after taking an abbreviated training course? These are highly specialized and very delicate procedures that require a comprehensive understanding. People's lives and health are at the heart of this, and we owe it to our patients and their well-being to ensure that we're well-versed in any procedures we perform.

Some specialists did not receive extensive implant training during their specialty programs. What do you consider an acceptable path for them to be proficient in placing implants?

Froum: If a specialist feels that he or she did not receive adequate training placing implants during their program, they should not place implants. Periodontal specialty programs train post-graduate students to competency in placing implants. They learn to plan treatments, assess risks, to read CT and CB scans, and about the biology related to implant placement and osseointegration, management of soft and hard tissue, and proper methods of implant placement and maintenance, including the prevention and treatment of complications both during and after implant placement. If a post-graduate student is not trained in all of the above, the patient is at risk when an implant is placed and the success rate is usually low. At New York University Department of Periodontology and Implant Dentistry, we have a two year, full-time course devoted to implant placement and restoration. This is the type of post-graduate course that specialists could take if they wanted to expand their implant training. The periodontal students in our department receive all of this training during their three-year certification course.

Every day, general dentists perform procedures that are also done by specialists. Doing versus referring can be a fuzzy line. What criteria would you use when it comes to placing implants?

Froum: As a periodontist, I know that collaboration among the dental team is crucial to successful patient outcomes. We must work together to help our patients who have lost teeth restore aesthetics and function. I believe

that general dentists should be adequately trained in a recognized post-graduate program and have the same skills, knowledge, and experience as a specialist who received high-level training before he or she places an implant in another person. If the general dentist lacks this level of knowledge or experience, I strongly encourage that individual to refer the patient to a specialist who has the skills to obtain proper placement and avoid complications.

What avoidable implant complications have you seen most often in your practice?

Froum: Implant malposition, peri-implantitis and unaesthetic implant restorations are the three most common implant complications that I see both in my practice and at New York University Dental Center where I teach. These can often be avoided when the operator possesses the proper knowledge and skill in placing dental implants, combined with regular maintenance and monitoring.

Is there a set of guidelines in place to categorize the difficulty of an implant case (similar to ASA)?

Froum: I think the simplest classification (although not exactly corresponding to the ASA categories) was reported in an article titled, "Optimizing Esthetics for Implant Restorations in the Anterior Maxilla: Anatomic and Surgical Considerations."[1] This was taken from the classification of the Swiss Society of Oral Implantology (1999). I am also partial to the straightforward, advanced or complex (SAC) classification of implant sites with and without bone deficiencies. Parameters are included, and they differentiate the three categories. However, in formulating these three categories, the authors assumed that the operator possesses skills in implant placement. If the clinician is not trained to competency, even simple cases would be considered complex. This is why I feel so strongly that any dental professional that wishes to place implants obtains the same training as a periodontist does in the three-year specialty program. ■

1. Daniel Buser, William Martin and Urs Belser. International Journal of Oral Maxillofacial Implants. 2004. 43-61.

What are your opinions on who is qualified to place implants? Comment after this article on Dentaltown.com.