

June 2003

Dear

Thank you for your **increased communications**, especially with the triplicate referral form. Thanks also for responses to the Referral Survey last November: “You should know my patient found his cost with you ‘out of network’ was lower than his cost would have been with another periodontist ‘in network’.” “Your results with basic perio and basic tissue grafting are the best.” **Please give feedback. If you have different thoughts when you get a letter, say so. Communicate!!!!!!**

**In this newsletter I will focus on histologic width, crown lengthening around natural teeth, the implant microgap, and the new scalloped implant.**

The relationship between these subjects was summarized in the 2000 **position paper by the Academy of Periodontology**: “A minimum width of periimplant mucosa appears to be required to allow a stable epithelial-connective tissue attachment to form. Such a width is analogous to a biological width (height) around natural teeth.”

For over 40 years dentists have understood the concept of **biologic width around teeth**. Biologic width is the soft tissue dimension of about 1mm for connective tissue attachment, plus about 1mm for epithelial attachment. In order to have gingival health there needs to be at least a 2mm space available on the root surface coronal to bone for soft tissue attachment. Accordingly, in **crown lengthening due to caries, fracture, resorption, or lack of clinical crown length for retention**, ostectomy is done so the bone is more than 2mm from the restorative margin, otherwise the patient will likely experience chronic inflammation, a deepened periodontal pocket, bone loss, and/or gingival hyperplasia. Similarly, in **crown lengthening to achieve an esthetic tooth height to width ratio or to reduce gingival display**, the bone must be over 2mm apical to the facial gingival margin after the gingivectomy, or tissue will rebound post-surgically. Ostectomy is indicated rather than gingivectomy if there is a lack of biologic width.

Removing supporting bone from a tooth (and often from the adjacent teeth) is a negative procedure, so I utilize **several modifications** where possible. If the apical portion of **missing tooth structure is not too deep into the tooth, the surface can be smoothed or ramped** and the restorative margin placed coronally, removing less bone. Resorptive defects or perforations can often be restored with **Geristore hybrid ionomer composite (Den-Mat)**, permitting less ostectomy, because bone and tissue tolerate Geristore in close proximity. A crown margin can be placed coronally in the Geristore.

*Alternatives to crown lengthening should be considered. **Orthodontic supraeruption** may be a better method than ostectomy, if root length and time permit. **An implant** may be a good alternative. Rather than remove surrounding bone it may be more conservative to extract the tooth and place an immediate implant.*

*I try to place **the implant microgap** (between implant and abutment) 1 or 2mm above bone. When one can do this, it is expected to have significantly less **bone loss the first year after implant placement**. The routine loss of bone to approximately 2mm from the microgap is **thought to be related to the need for biologic width** of attachment of the junctional epithelium and connective tissue. Implant researchers and manufacturers, especially Nobel Biocare/Steri-Oss, have developed a number of **innovations that address this issue**. **Internal retention** is mechanically superior, eliminates the 1mm external hex, and places the microgap more coronally. A 1½mm **polished collar** places improved roughened surfaces more apically, allowing implant placement more coronally. Where it is possible **immediate placement** and restoration preserves surrounding tissues and permits more coronal placement. A **single stage implant** (no separate abutment, no microgap) should be available from Nobel Biocare within a year.*

*Bone loss due to microgap placement at or under bone is especially serious in the anterior esthetic zone. Papillary preservation is dependent upon underlying bone preservation. Because the facial implant margin must be 2mm apical to the facial gingival margin, the proximal margins of flat top implants are often below bone. This is not OK! A solution to this problem is the new **scalloped implant**, whose contour approximates the convex proximal bone topography in the anterior areas. Interproximal bone and overlying tissue is preserved. Scalloped implants will be available from Nobel Biocare this September.*

*I recommend the \$67 subscription (10 issues/year) to **Practical Procedures and Aesthetic Dentistry** (“Sections” on Operative Dentistry, Prosthodontics, Endodontics, Periodontology/Implantology, Biomaterials/Research, Laboratory Technology, and Advanced Technology). Subscribe at 1-800-899-5350 or [www.montagemedia.com](http://www.montagemedia.com).*

*Call me if you wish to make reservations for **four, Thursday evening, 2-hour sessions with Nobel Biocare representative Shaun Clay and me** (Sept 18, Oct 9, Oct 30, and Nov 13). The subjects are: (1) restorative products that make implant dentistry similar to crown and bridge; (2) esthetic implant cases; (3) staff marketing/training; and (4) overdentures. The class is limited to 10 dentists and accompanying assistant or hygienist. These basic sessions can help implants become a delightful service for your patients.*

*Sincerely,*

*Gerald S. Summerhays DDS, MS*