



Periodontal Implant Center

Jacob D. Hager, DDS, MS

8203 S. Walker

Oklahoma City, OK 73139

Periodontal News



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Jacob Hager, DDS, MS ♦ Board Certified by the American Board of Periodontology

All of us at the Periodontal Implant Center would like to say *Thank You* to the dental offices across Oklahoma who continue to trust their patients to our care. We understand how difficult it is to convince patients to follow through with a periodontal referral and that sincere confidence in our office is required by you for patients to make that decision.

As always, we remain committed to providing your patients with consistently superior treatment as well as providing your office with the highest level of communication regarding your patients' care.

We hope that we continue to exceed your expectations in meeting the periodontal needs of your patients.



Medical Update – Cardiac Risks for Your Perio Patients

As evidence from research continues to point towards a direct link between inflammatory periodontal disease and cardiovascular disease (CVD), it is becoming increasingly important that dental clinicians inform their moderate to severe periodontal patients of how their oral condition may likely increase the risk for future heart attack and stroke if not well controlled.

In recent years, the immune system, once believed to be only a vital defense against infection and a promoter of healing, is now recognized as a significant active participant in both atherosclerotic CVD and periodontitis, as well as many other diseases (hypertension, diabetes mellitus, arthritis, psoriasis inflammatory bowel disease).

There are currently two plausible

biologically supported mechanisms by which periodontal disease can affect the progression of CVD:

- 1) Periodontally induced increase in systemic inflammation
- 2) Bacterial seeding into the blood stream from inflamed periodontal tissues.

Although there are many shared risk factors for periodontal disease and CVD (smoking, diabetes, obesity, hyperlipidemia, depression/anxiety, hypertension, and family history) some research has pointed to a causal relationship between the two disease states after adjusting for these shared risk factors.

In a recent consensus paper, the American Academy of Periodontology has made certain recommendations for patients with periodontitis regarding their cardiovascular status. In short, these recommendations include:

- All patients with moderate to severe periodontal disease be informed of their possible increased risk for CVD
- Any periodontal patient with other risk factors of CVD should be recommended for medical consultation if they have not done so in the last 12 months

As dental clinicians, we should strive to assist in the overall health of our patients when possible. Equipping our periodontal patients with information regarding the impact of their disease on the rest of their body is a simple way of fulfilling this duty.

Please contact our office if you would like a copy of the AAP consensus report or examples of the latest information that is available for distribution to your patients which outlines the relationship between inflammatory periodontal disease and CVD.

Enhancing Smile Esthetics with Anterior Crown Lengthening

Of all the procedures offered in our office, esthetic crown lengthening is one of the most rewarding – for both me as the treating clinician and the patient. Just like a new set of veneers, there can be an immediate and dramatic esthetic improvement following anterior crown lengthening, often very life changing for the patient.

Unfortunately, very few patients are referred to our office for this particular procedure. Why is this? Most patients with excess gingival display due to altered passive eruption (gingiva covering enamel) are unaware that any improvement can be made to their smile. They assume their gummy smile is due to having short teeth and resign to the fact that nothing can be done to change it. How would they know that their gum tissue is actually covering a portion of the enamel that should be exposed?

These patients have to be told by their dentist that treatment options exist. Often times, a visual example of a before-and-after picture explaining a crown lengthening procedure is all that is needed for patients to pursue this elective treatment. In spite of being informed, some patients may elect not to pursue treatment. Nevertheless, it is important that patients with excess gingival display be educated that treatment options exist and let them decide for themselves whether the procedure is worthwhile to them.

Identifying Potential Candidates for Treatment:

- Any patient with a complaint of excess gingival display
- Any patient with significant asymmetry in the gum position across the maxillary anterior teeth
- Any patient with short clinical crowns, excess gingival display, and CEJ's that cannot be detected in the gingival sulcus
- Any patient treatment planned for anterior prosthetics (crowns or veneers) with gingival asymmetry, excess gingival display, or poor height to width ratio of their anterior teeth
- Any patient with excess gingiva contributing to difficulties with plaque control

Other causes of excess gingival display exist and require treatment apart from anterior crown lengthening. Patients may have a skeletally long maxilla (*requiring orthognathic surgery*), extrusion of their maxillary dento-alveolar segment (*requiring*



35 year old female referred to our clinic for tissue grafting in the mandibular arch. Patient had never been told there was any way to address her gummy and asymmetrical smile.



45 year old female that had never been previously told there was any way to address the short appearance of her teeth or excess gingival display.



18 year old post-orthodontic male. This patient was a severe mouth breather who likely had poor plaque control during orthodontic treatment. Treatment options were pursued by his mother to address the compromised esthetics of his smile in preparation for senior pictures. Prior to this time, crown lengthening had not been recommended by any dental clinicians.

orthognathic surgery or orthodontic intrusion), or a short or hypermobile upper lip (*limited treatment options exist*).

Certainly, careful examination is required to determine the exact cause of any excess gingival display and the correct treatment. The same care should be taken in informing patients when these treatments would have significant benefits for improving the esthetics of their smile.

Please contact us if you would like before-and-after examples of anterior crown lengthening cases treated in our clinic for use as patient education material in your office.

Biofilms – Implications for Periodontal Therapy

The word biofilm describes a surface-bound community of bacteria growing inside a secreted slime-like matrix. The term was first used to describe how different bacteria exist together in a natural environment as early as 1978 and is a major contrast to the older thought of individual bacteria existing independently of one another.

Recent research and advanced microscopy has shown that bacterial growth in the oral cavity occurs almost exclusively as a matrix-enclosed biofilm. This carries extreme importance since biofilms, or groups of organized bacteria, do not behave the same as a single bacterium. Contrarily, bacterial communities are profoundly resistant to both host defenses and antibiotics and can actually change their DNA or gene expression to resist being killed.

Many antibiotics that prove useful in a laboratory setting against bacteria growing in a test tube will have no effect on an organized biofilm involving the very same microbe. For this reason, antibiotics fail to have a great impact on periodontal infections – most antibiotics cannot penetrate the targeted biofilm or the bacterial community develops some means to inactivate the drug.

Mechanical disruption remains the primary means to treat periodontal infections that are mediated by microbial biofilms.

Ultrasonic instruments offer some likely advantages over traditional curettes in their ability to help dislodge the sticky biofilms from root surfaces and tissue walls of a periodontal pocket. Ultrasonic water spray works beyond the actual tip of the instrument and can also lyse / rupture bacteria that it directly comes into contact with.

Just as orthopedic surgeons utilized direct debridement to remove resistant bacteria from an osteomyelitis lesion, dentists and dental hygienists must be aware that biofilm disruption is an extremely important goal of any periodontal procedure. Especially in deeper pockets and any site that exhibits visible inflammation or bleeding on probing, routine disruption of organized biofilms needs to be a focus of the treatment.

This becomes most important at recall maintenance visits for periodontal patients. Root planning or use of ultrasonics should not be limited to sites where hard deposits (calculus / tartar) are felt to be present. Rather, any site displaying signs of inflammation or progressive attachment loss should be treated with a thorough decontamination / biofilm removal from the subgingival root surface. Care should be taken to instrument the entire root surface with small overlapping strokes as though painting the entire root surface.

Reorganization of a subgingival biofilm can be expected in as little as 60 to 90 days – reinforcing the need for regular maintenance care.

Periodontitis - An archetypical biofilm disease. JADA, Vol. 140, August 2009, pg 978 – 986.



Our office continues to offer CT scanning for your diagnostic needs.

Patient cost per scan is \$125



**Implant Planning
TMJ Evaluation
Impactions
Endo Diagnosis
Ortho Planning**

Free Lunch CE

Call or email us to set up a short continuing education course for you and your staff over the lunch hour. Food is on us and signed CE cards will be provided. Pick your topic:

- 1) General Periodontal Care – When to refer and how to get the most out of a relationship with a periodontal office.
- 2) Esthetic Periodontal Procedures and Soft Tissue Grafting – What Patients are Candidates?
- 3) Dental Implants - General Principles and Case Planning.
- 4) Implants in the Esthetic Zone – A Simplified Approach to Custom Abutments.
- 5) Topic of your choice.

To reserve a date, ask for Amanda at 405-636-1411, or email at okperioimplantcenter@yahoo.com

Easy Custom Abutments

Do you hesitate at the thought of restoring anterior esthetic implant cases? Unsure about implant level impressions and developing soft tissue contours that will match the adjacent teeth?

Rest easy. For maxillary anterior cases, we often take implant level impressions at the time of surgery and have a double set of matching custom abutments and a tissue supporting provisional restoration fabricated prior to returning the patient to your office. This process results in a working master cast that can be forwarded to your porcelain lab after a final shade has been selected. *Often, there is no impression to take in your office.*

Call to schedule an in-office presentation to review case logistics.

