

Health Corner

Periodontal diseases impact your overall health in many ways. This column will regularly discuss such concerns.

Diabetes and Periodontal Disease

The link between diabetes and periodontal diseases is well established. As you know, diabetes is a risk factor and potential cause for many different diseases including cardiovascular disease, renal disease and visual impairment. What you may not know is that diabetes is one of only two risk factors for periodontitis. The other risk factor is smoking. Periodontal diseases affect the supporting structures of the teeth, including the gums, the bone and the ligament which connects the teeth to the bone. The first structure affected is the ligament, which results in loosening of the teeth, followed by loss of bone which leads to further loosening of the teeth and eventual tooth loss. This loss of support is due to a complex interaction between the bacterial plaque and the patient's mouth. The interaction leads to inflammation which causes loss of the supporting structures of the teeth. In years past it was relatively common for a patient who presented to our office with severe periodontitis to be referred to their family doctor, to be evaluated for undetected diabetes. A large number of Type II diabetics have been diagnosed in this manner. Fortunately, today more family physicians are aware of Type II diabetes.

There is also an ever growing understanding that a patient's oral health is intimately linked to their general health. For example, endocrinologists are frequently referring their patients directly to their dentists for evaluation following a diagnosis of diabetes. The link between oral health and general health has been established for several other common disease processes, including cardiovascular disease, gastrointestinal diseases and complications during pregnancy, as will be discussed in subsequent issues of *Comfort, Function, and Esthetics*. Diabetes is not only a risk factor for periodontitis, but severe periodontitis will inhibit the ability of diabetic patients to control disease through diet and/or medications. Many diabetics have experienced a "honeymoon" following the diagnosis of diabetes. This honeymoon period is a time in which a diabetic patient can control the disease process with diet and exercise alone. Part of this diet and exercise regimen must include any necessary improvements in oral health. Elimination of periodontal diseases will lead to an improvement in glycemic control. It is important for newly diagnosed diabetic patients to have an evaluation performed by a dentist to determine if periodontal disease is present. In summary, not only will periodontal diseases be worsened by the presence of diabetes and lead to tooth loss; the diabetes could potentially be more difficult to control.

A diabetic patient should inform their dentist of any new diagnosis or change in the existing diagnosis diabetes when being seen by their dentist or hygienist. It is also important that a thorough periodontal examination be performed at regular intervals, in order to avoid undetected changes in the patient's periodontal health.

Despite these concerns, well controlled diabetic patients can predictably undergo all forms of dental therapy including periodontal surgery and dental implant surgery, with little or no changes in the care provided. If you are either a newly diagnosed diabetic patient, or have a history of diabetes, we suggest that you do two things:

1. At your next visit please inform us of your diabetic status so that we can tailor your treatment in our office to your specific needs.
2. If you routinely take your blood glucose levels please take your blood glucose immediately prior to your dental appointment and inform us of this value, so that we can treat you in the safest manner possible.

Periodontal therapies are predictable and straightforward, if the problems are diagnosed and intercepted at their earliest stages. Even advanced periodontal problems may now be successfully treated through the regeneration of lost bone, saving many previously condemned teeth.



Team Spotlight

Diane, Paula and Erica have over 50 years of experience in the hygiene field. They are an integral part of our treatment team and co-therapists in patient care, whether it be through disease recognition, non-surgical periodontal therapy, or maintenance care after active treatment has been performed. Diane, Paula and Erica remain at the forefront of hygiene concepts and therapies through continuing education courses and reading of the most current literature. They are well versed in conventional therapies, tooth whitening, and progressive hygiene procedures. We are fortunate to have Diane, Paula and Erica as part of our office team.



Early diagnosis of periodontal diseases often enables us to treat your problems non-surgically, by a thorough removal of all bacterial products from beneath the gum. This therapy is as comfortable as a "good cleaning".

If you have one or more of the following signs, you may very well have the early stages of periodontal disease:

- Bleeding gums
- Bad breath
- Loose teeth
- Shifting teeth
- Pain upon brushing or flossing



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Comfort, Function, & Esthetics

Advancing Patient Care and Dental Education



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Advancing Patient Care and Dental Education • Summer 2006

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Welcome to the first issue of Comfort, Function & Esthetics

Advances in dentistry offer many exciting opportunities to save previously hopeless teeth through bone regeneration; to replace missing teeth without having to involve adjacent teeth in bridgework; to rebuild damaged bone at the time teeth are removed or in areas where teeth have been missing for quite some time; and to replace full dentures with implant supported fixed bridgework.

One of the goals of *Comfort, Function & Esthetics* is to keep you abreast of these advances. We will also let you know about exciting happenings in our office, as we continually strive to stay ahead of the curve and help lead the way in many new therapies through courses we teach in Milton, the US, and throughout the world.

We hope you enjoy *Comfort, Function & Esthetics*, and find it both interesting and informative.

Paul A. Fugazzotto, DDS Scott Lightfoot, DDS, MS



To receive our free newsletter, email your name and address to info@fugazzotto-lightfoot.com, or call us 617/696 7257.



Teeth In An Hour... Teeth Today... Immediate Implant Therapy...

What does it all mean?

Osseointegrating (Root Form) Dental implants represent one of the most significant advances to occur in dentistry in many decades. Initially introduced in the early 1980's, this type of implant therapy is highly predictable, and affords the opportunity to re-attain and maximize comfort, function and esthetics in both the short and long term, in a variety of situations.

Recently, there has been a great deal of talk in the press about "Teeth In An Hour" and "Teeth Today". Utilizing these techniques, patients are able to have implants placed and restored in the same day. Such therapy potentially represents another significant advance in implant therapy. However, it is important to realize that immediate implant restoration is not a miracle. This therapy should only be utilized in appropriate situations where it is in the best interest of the patient.

We have taught courses in our Dental Continuing Education Center about Immediate Implant Therapy for a number of years. Surgeons and restorative dentists travel from various parts of the United States and other countries, including England, Italy, Germany, Australia, Canada and Mexico, to take these courses and learn how best to utilize Immediate Implant Therapy. We were also one of the first offices in the country trained in the "Teeth In An Hour" techniques, and are one of the very few private dental offices to have a head and neck CAT scan machine on site to aid in diagnosis and treatment of such patients.

These many years of experience with Immediate Implant Therapy have underscored the absolute necessity to perform appropriate diagnosis and treatment planning for every patient on an individual basis, and to tailor the therapy to that specific patient's need.

Utilized appropriately, Immediate Implant Therapy (Teeth In An Hour, Teeth Today, etc.) is highly predictable and a great service to patients. After taking a head and neck CAT scan, we utilize computer programs to precisely plan implant placement and restoration in conjunction with your restorative dentist. A computer based surgical guide is fabricated, as are the teeth which will be placed on the implants. The implants are placed by us and the teeth are inserted by your restorative dentist at the same visit.

Even when immediate implant restoration is not possible, the use of this type of planning affords ideal implant placement. In addition, patients know in advance whether simple procedures must be carried out to regrow lost bone at the time of implant placement.

In summary, Teeth In An Hour, Teeth Today, or any other type of Immediate Implant Therapy, represents a significant advance in patient care when utilized appropriately. However, if the proper diagnosis and treatment planning are not carried out by all clinicians involved in treatment and if such therapy is not performed by clinicians well versed in this treatment approach, the patient experience will be less than ideal.

Today, many implant treatment options are available to help restore oral health, and maximize comfort, function and esthetics in both the short and long term. The key to attaining these goals is to match various treatment options to individual patients, and to carry out care in an expert manner.

Please feel free to ask us any questions you may have about Immediate Implant Therapy, or implant treatment in general.

About our ICAT machine:

Computed Axial Tomography (CAT) scan is a safe, fast, diagnostic examination which provides us unique images of the bone, the sinuses and other important structures. The ICAT machine is designed for head and neck imaging, and is much simpler and more comfortable for the patient than conventional CAT scan machines. The patient is not lying flat in an enclosed tube. Rather, you sit in an open chair while the CAT scan is taken.

ICAT imaging is utilized for:

- Visualization of the extent of the bone loss which has occurred, and the remaining quantity of bone
- Determination of bone quality and density as it relates to implant placement
- Visualization of sinus cavities to detect chronic and/or acute sinus problems
- Planning of implant placement prior to actual therapy, through the utilization of the ICAT scan with various computer softwares

The scan takes less than 60 seconds, and is as easy to sit for as conventional dental x-rays.

Computer programs are then utilized with the information gained from the CAT scan to plan ideal implant placement. This allows a much greater degree of safety with implant placement in areas where significant amounts of bone have been lost.

In addition, such planning enables us, working with your restorative dentist, to place the implants and have teeth placed upon them during the same visit in many situations.



What is a Gingival Graft?

In health, a tooth is surrounded by two types of tissues. The first is gingiva (gum), which is pink in color and thick and dense under a microscope. Gingiva forms a tight seal around the tooth and serves as a barrier against the penetration of bacteria to the underlying supporting bone. The gingiva also helps to withstand trauma from brushing, eating, etc.

The other type of soft tissue surrounding a tooth, mucosa, is found directly below the gingiva. Mucosa is red, thin and appears "loose" under a microscope. Mucosa does not seal tightly around the tooth, nor does it withstand trauma well (as shown by how easily you can "scrape" the floor of the mouth).

If recession of the gingiva occurs, the body loses a natural defense against both bacterial penetration and trauma. When only minor recession is present, some healthy gingiva often remains to protect the tooth, so that no treatment other than modifying brushing techniques is necessary.

When recession reaches the mucosa, the first line of defense against bacterial penetration is lost.

No matter how meticulously the patient tries to control the bacteria, there is a greater chance of it penetrating the tissues and affecting the underlying supporting bone around the tooth when the attached gingiva is missing.

Gum recession often results in root sensitivity to hot and cold foods, and an unsightly appearance to the gum and tooth.

A gingival graft solves these problems. A thin piece of tissue is taken from the roof of the mouth, or gently moved over from an area adjacent to the recession, to provide a stable band of attached gingiva around the tooth.

The gingival graft may be placed in such a way as to cover the exposed portion of the root. Such root coverage improves esthetics, and helps eliminate root sensitivity to temperature and sweets. While root coverage represented a compromise in the past because the covering tissues would not attach to the previously exposed root, this is no longer the case. Through the use of various proteins at the time of graft placement, we are able to enhance the attachment of the gingival graft to the previously exposed root surface.

The gingival graft procedure is highly predictable, and results in the establishment of a stable, healthy band of attached tissue around the tooth.

Frequently Asked Questions:

Patients commonly ask these questions about gingival graft/root coverage procedures

Q: How long does a gingival graft/root coverage procedure take?

A: The visit to perform the procedure is about 45-60 minutes long. The stitches are removed approximately one week later in a 5-10 minute visit. One or two 10 minute check-ups may be scheduled to follow healing of the area.

Q: Will the gingival graft/root coverage procedure hurt?

A: Only "novocaine" is necessary to perform a gingival graft/root coverage procedure. During the visit you will feel nothing once the area has been numbed. When the "novocaine" wears off, there will be some mild discomfort. Medication will be prescribed to control any discomfort you might experience. This procedure will not cause you to miss work, etc.

Q: What is the cost of a gingival graft/root coverage procedure?

A: The cost of the procedure will vary with the situation. However, we will ensure this is discussed with you thoroughly before proceeding with any treatment.

Q: How well will the gingival graft/root coverage procedure work?

A: This procedure is highly predictable. If the procedure is carried out correctly, the end result is a healthy stable band of attached gum tissue which reseals and protects the tooth and underlying bone.



Figure 1. A patient presents with severe recession and no attached gum tissue (pink) at the base of the recession. Only loose mucosa (red) is evident.



Figure 2. Following a gingival graft/root coverage procedure, a stable band of attached gum tissue (pink) is noted, and the previously exposed root surface is covered.



Figure 3. Recession is noted on a number of teeth, resulting in esthetic dissatisfaction, root sensitivity, and a loss of the covering protective attached gum.



Figure 4. Following a gingival graft/root coverage procedure, the previously exposed sensitive root surfaces are covered and a stable band of attached gum is established to protect the bone and help prevent further recession.

Continuing Education

Drs. Fugazzotto and Lightfoot have long been committed to advancing dental education both locally and abroad. We believe that sharing of such knowledge is crucial to professional development and patient well-being. In 2006, we have given or will be giving the following presentations:

1/10/2006 • Impression taking with synOcta implants: Dr. Lightfoot at our Milton Continuing Education Center.

1/17/2006 • Immediate Load Implant Therapy: Drs. Fugazzotto and Lightfoot at our Milton Continuing Education Center.

1/22/2006 • Integrating Newer Therapies Into Everyday Care: The Wisconsin Periodontal Society: Dr. Fugazzotto in Milwaukee Wisconsin

2/8/2006 • Immediate Implant Therapy Part II: Drs. Fugazzotto and Lightfoot at our Milton Continuing Education Center.

2/10/2006 • Maximizing Treatment Results with Regenerative Therapy: The Long Island Dental Study Club: Dr. Fugazzotto in New York.

2/15/2006 • Impression Taking and Temporization of Solid Abutments in Implants: Dr. Lightfoot at our Milton Continuing Education Center.

3/9-11/2006 • The Realities of Regenerative and Immediate Implant Therapy: A three day mini residency in Miami: Dr. Fugazzotto with Drs. Jaffin, Barrios and Morton from New Jersey and Florida in Miami Florida.

3/21/2006 • Improved Lower Denture Retention with Two Implants and Locator Attachments: Dr. Lightfoot at our Milton Continuing Education Center.

3/21/2006 • Predictable Regenerative and Implant Therapy in Everyday Care: The Manhattan Periodontal Study Club: Dr. Fugazzotto in New York City, NY.

3/24/2006 • Maximizing Treatment Results with Regenerative Therapy, The New Jersey Hospital Study Group, Dr. Fugazzotto in Medford, NJ.

3/28/2006 • Immediate Implant Therapy Part III (Group I): Drs. Fugazzotto and Lightfoot in our Milton Continuing Education Center.

3/29/06 • Immediate Implant Therapy Part III (Group II): Drs. Fugazzotto and Lightfoot at our Milton Continuing Education Center.

4/6/2006 • Understanding Periodontal and Implant Therapy in Clinical Practice: The New Jersey Dental Study Group: Dr. Fugazzotto in Neptune, NJ

4/25/2006 • Advanced Imaging Utilization in Immediate Implant Therapy (Group I): Drs. Fugazzotto and Lightfoot at our Milton Continuing Education Center.

4/26/2006 • Advanced Imaging Utilization in Immediate Implant Therapy (Group 2): Drs. Fugazzotto and Lightfoot at our Milton Continuing Education Center.

4/27/2006 • Treatment Options in Reconstruction of the Posterior Maxilla: The United States International Team for Implantology Symposium: Dr. Fugazzotto in Miami, FL.

5/6/2006 • Predictable Augmentation for Posterior Maxilla: Seattle Study Club Director Symposium: Dr. Fugazzotto in Seattle, WA.

5/11/2006 • The SL Active Surface: A Significant Advance in Implant Therapy: Dr. Scott Lightfoot in Cambridge, MA.

5/12/2006 • Innovations in Augmentations of the Posterior Maxilla: The International Camlog Implant Symposium: Dr. Fugazzotto in Montreux, Switzerland

5/19/2006 • Predictable Sinus Augmentation and Guided Bone Regeneration Therapy: Dr. Fugazzotto at our Milton Continuing Education Center.

5/20/2006 • The Clinical Realities of Immediate Implant Therapies: Dr. Fugazzotto, Dr. Baker, Mr. Ira Dickerman at our Milton Continuing Education Center.

7/27-7/29, 2006 • Advanced Implant and Regenerative Therapy: The Australian Annual Implant Symposium: Dr. Fugazzotto in Melbourne, Australia

11/9-11/2006 • The Realities of Regenerative and Immediate Implant Therapy: A three day mini residency: Dr. Fugazzotto with Drs. Jaffin, Barrios and Morton in Miami, FL and Las Vegas, NV

12/7-9/2006 • The Realities of Advanced Bone Grafting and Implant Placement: A Live Surgical/Hands-on Cadaver Course: Drs. Fugazzotto and Ruskin at our Milton Continuing Education Center

We also regularly bring nationally and internationally renowned speakers to Milton address the dentists we work with. The topics are varied so as to maximize the educational experience for attendees. In 2006, these speakers included:

2/17/2006 • Dr. Dean Morton from Gainesville FL: Maximizing Esthetics with Implant Therapy

3/2/2006 • Dr. Dean Vafiadis from New York City, NY: Esthetic Management of Implants and Natural Teeth in Difficult Cases.

5/23/2006 • Mr. Mike Archer from Imaging Sciences: Utilization of CAT Scan Imaging to Treatment Plan Advanced Implant Cases and Immediate Implant Therapy.

6/9-10/2006 • Prof. Anna Pattison from Los Angeles, CA: Advances in Periodontal Therapy, the Role of the Hygienist in Diagnosis and Treatment.

9/29/2006 • Dr. Urs Belzer from Geneva, Switzerland: Advances in Implant Therapy and Esthetic Treatment

10/25/2006 • Dr. Robert Levine from Philadelphia, PA: Predictable Implant Solutions in Everyday Practice.

11/8/2006 • Mr. David Schwab from Orlando, FL: Practice Management and the Patient Experience