FOCUS ON HEALTH

The Comprehensive Oral Health Evaluation

by Steve Ratcliff, DDS, Director of Academic Affairs

You may have seen recent television programs, articles and advertisements promoting cosmetic smile makeovers. While these may have inspired you to seek the services of a highly trained dentist, they also may have made you a little concerned about the “extreme” to which your dentist may advise you to go. It’s important to remember the best dentists will always be interested in your personal concerns and preferences.

The Pankey-trained dentist, who subscribes to the principles and practices of optimal care, understands your desire for the best dental services that are appropriate for your circumstances and objectives, and this dentist is dedicated to helping you achieve your goals.

This dentist will be concerned first with getting to know you as a unique individual in order to meet your expectations. This dentist will be concerned next with a co-discovery examination, which will allow both of you to determine the aspects of your oral health and appearance that can be improved.

The comprehensive oral health evaluation is always an important process for the new patient in a practice. Your dentist may recommend that you have periodic comprehensive evaluations over the course of your life, depending on the frequency of your contact with your dentist and changes observed in your oral condition. Your dentist will know when this is appropriate for your individual circumstances.

Oral Health Link

HEART DISEASE
Continued from page 1

The entire comprehensive evaluation process may take place over multiple visits. Certainly, if you have immediate concerns or an urgent need, your dentist will address those issues prior to leading you through the entire evaluation.

Beginning Conversation

Most often, the comprehensive evaluation begins with discussing your dental history and learning about your past experiences with dentistry. Your dentist gains valuable insight as you talk about your past experiences and express what you want for yourself, how you see your present level of oral health, and your expectations of the dentist and office staff. Hearing your concerns and opinions will help the dental team provide the level of service you expect or even raise your expectations. It will assist them in helping you achieve your desired results.

Complete Examination

The next step is a complete clinical examination. This is accomplished with your help and input. Comprehensive clinical examinations are more thorough than the “ cursory check-up” you may have come to expect.

In order to reach a complete understanding of your present state of health, your dentist must gather data about your masticatory (chewing) muscles, temporomandibular (jaw) joints, and occlusion (bite). Your dentist also must gather information about how these three components work together in your mouth.

Evaluating the health of the periodontium (gums) and surrounding soft tissues is part of the process. Your dentist will be looking for signs of disease, oral cancer, and injury during this part of the exam. A complete assessment of the health of each individual tooth, as well as the condition of any existing restorations (such as fillings, crowns and bonding) or prostheses (such as dentures), is an integral part of the process.

An esthetic evaluation is apt to be included. If you have expressed concern about the way your teeth look, you will have the opportunity to “tour” the mouth together, discussing each point of concern.

Throughout this exam, your dentist will be asking you what you are feeling, wondering, and thinking. You, after all, know better than anyone what you feel in your own mouth.

Along with the process of examining your mouth with you, your dentist will suggest appropriate x-rays. These may include films of your teeth, entire jaw system, and if necessary, specific films of your jaw joints.

Diagnostic impressions of your upper and lower teeth will be made using an elastic material. These impressions are a “negative” of the mouth into which plaster or dental stone is placed to make an accurate copy of the mouth. The resultant “casts” will be mounted on an articulator, which is an instrument that simulates the movements of your lower jaw relative to your upper teeth.

Scientists also theorize that the bacteria that cause periodontal disease activate white blood cells in the body to induce systemic immune and inflammatory responses that may contribute to heart disease and stroke.

Ongoing and future studies will focus on identifying the specific biological factors involved and transferring this knowledge to prevent disease.

Additional information may be found at:

www.americanheart.org
A final step in gathering data is a complete set of close-up photographs of your teeth and face.

During this entire process, you and your dentist will be conversing about each portion of the examination and what you are discovering. Your dentist will be actively listening for your questions, concerns, and opinions — and will take time to address them. You will be a collaborative member of your oral health team.

**Period of Planning**

Before advising you on treatment, your dentist will take time, in solitude, to study all of the gathered information and form a thoughtful plan that addresses your concerns and any health problems uncovered by the comprehensive evaluation. Your dentist may invest substantial time in this phase of the process, as well as tremendous care, knowledge and advanced technical training.

**Follow-up Conversation**

You will be invited to schedule a subsequent appointment to discuss the findings and how to best proceed with treatment that meets your goals and objectives.

**Courage and Encouragement**

It is important to emphasize that the essence of this experience is understanding your unique aspirations and expectations and learning how best to work with and for you. For those who are discriminating about their health care, this comprehensive, relationship-based approach is both reassuring and satisfying.

Choosing a Pankey-trained dentist, as you have, allows you the opportunity to work with a doctor who is constantly pursuing excellence in all facets of dental practice. If you want to explore the possibilities of improving the beauty of your smile as well as maintain a high level of health and functional comfort, don't be shy about bringing up your “what if...” thoughts and “I've always wished...” heartfelt feelings.

You deserve optimal health, and the best dentists will strive to help you have it. If you need time to “work on” your feelings and decisions regarding your oral health, your dentist understands. Your dentist is happy to answer your questions, discuss concerns, and help you overcome obstacles you may face in developing and pursuing your goals.

---

**Oral Health Link**

**HALITOSIS**

Frequently dentists are asked about the causes and treatment for halitosis (bad breath). If you tell your dentist about your concerns and then experience a comprehensive evaluation, it is very likely that some discussion will follow that addresses your concerns.

Most commonly, oral odors are created by food you’ve eaten or periodontal (gum) disease. Other causes can be sinus infections, chronic gastroesophageal reflux, anorexia, bulimia, and diabetes. Smoking and alcohol cause odors as well.

Foods such as garlic and onion contain large molecules that are responsible for their odor. These large molecules must be excreted fully before the odor is gone. Unfortunately, they are removed from your body by way of your lungs. It can take as long as 24 hours before the odor is gone. Regardless of how carefully and thoroughly you brush, floss, and use mouthwash, the odor does not go away; it is only masked. It will return until all the molecules are expended through your lungs.

Sinus infections are characterized by pain, fullness in the sinus area, and a thick mucus-like discharge. A bacterial infection can cause a foul odor. Once the infection is treated, the odor will go away.

Diabetics often have a breath odor that is caused by

Continued on page 5
Small Changes...Big Difference
by Gary DeWood, DDS, Clinical Director

Do you like raspberries? I do. Have you noticed how those little seeds get in your teeth and change how your bite feels? I mess around with my tongue, a toothpick, my toothbrush, sometimes my finger until they’re gone and I can bite my teeth together normally again. It just feels so good. I’ve noticed the same reaction in patients when I return harmony between their jaw joints and their bite.

The human jaw joint (the temporo-mandibular joint or “TMJ”) is unique in your body. It rotates, it slides, and it does both at the same time. It does all this on one side or on both sides simultaneously.

Small changes in the way teeth interact are accounted for in the movement of your jaws by muscle memory. You learn to work around things because the differences are very small and change very slowly (unlike the raspberry seeds that cause change quickly). These changes are caused by many things including fillings, grinding, clenching, gum disease, habits, and injuries, to name a few.

Because these changes occur over a span of years, the differences never feel abnormal to you. Sometimes they only become evident when a tooth hurts, becomes loose, or breaks. You’re surprised! Everything was fine, why did this happen all of a sudden ... on Sunday ... or the day before we were leaving for vacation!?

Dentists such as yours, who study at the Pankey Institute, have spent substantial time looking at and looking for the earliest signs of these changes. That begins at your first visit. A comprehensive oral health evaluation includes study of the relationship between your teeth and your jaw joints, and the relationship between your upper teeth and your lower teeth.

You may be completely unaware of overworked muscles (they’re usually tender when pushed on or squeezed), cracked teeth (they usually don’t hurt until the crack gets way inside), or a shift in your jaw as your teeth come together (you’ve trained yourself to make the teeth hit where most of them touch each other). When you become aware of a problem the solution may be quite different from what would be appropriate had it been discovered earlier.

If you have suffered significant dental problems, you don’t need me to tell you about the problems. The signs are pretty easy for you to see (and feel).
Your dentist is looking for the signs that foretell the problems. Raspberry seeds are quite small unless they are lodged on the chewing surface of a tooth. They feel absolutely boulder-like then. You can imagine that, for you to remain unaware of changes that are occurring in your bite, they must be pretty small. You’re right. The problem is that they add up, and as they add up, they feel normal to you. That’s why you’re surprised.

Casts, or models, of your teeth, when appropriately studied with all the information noted during your comprehensive evaluation, can give your dentist information that confirms the signs. They also provide an opportunity to plan the necessary actions to correct and reverse the changes.

What I’ve noticed is my patients’ amazement at how good their bite feels when these changes are corrected. They have “that look” on their faces. You know the look, the “no more raspberry seeds on my teeth and it feels good” look.

They say they can’t believe how their bite feels. They report a feeling they could not have imagined, but like the raspberry seeds being gone, they know when it happens. It feels so good, and that feeling is a sign that functional harmony has been achieved — a feeling and a fact that improves the likelihood of lifelong oral health.

Oral Health Link

HALITOSIS

Continued from page 3

Ketoacidosis, a condition that occurs when their sugar/insulin balance is out of control. This odor has been characterized as smelling like acetone.

Chronic gastric (stomach) conditions and bulimia can lead to changes in the body chemistry that create a sour breath odor which also can be chronic.

Physicians treat all of the above systemic conditions. Dentists can help you determine what might be contributing to breath odors and even help you find the appropriate physician to treat the underlying causes.

Odors caused by poor oral hygiene and periodontal diseases are the easiest to treat. Frequently, they can be treated simply by changing the way you care for your teeth and mouth. If periodontal disease is the cause, the disease must be treated but when the disease is under control, the odor goes away.

Mouthwashes only mask odors for a short period of time. If you have a persistent odor, consult with your dentist to explore the possible causes.

The L.D. Pankey Dental Foundation, Inc.
President: Dr. Jack Shirley
Trustees: Dr. Thomas W. Dawson, Mr. Ronald W. Drucker, Dr. E. Flynn Harris, Dr. Jay Hislop, Dr. James C. Kincaid, Dr. Gloria McNeill, Dr. Mark T. Murphy, Mr. Richard A. Smith, Dr. Schuyler Van Gorden, Mr. George Williams
Trustee Advisors: Dr. Crispin W. Paul, Dr. Barry S. Segal
Directors: Dr. Philip N. Ankrum, Dr. Jeff D. Baggett, Dr. Janet C. Barresi, Dr. Herbert E. Blumenthal, Dr. William J. Brennan Jr., Mr. Barclay Cale, Dr. Steve Carlsten, Mr. Steve H. Carter, Dr. John F. Davis, Dr. Gary DeWood, Dr. Paul David Epstein, Dr. Carl E. Findley Jr., Dr. Michael C. Fling, Dr. Leonard Garfinkel, Dr. Yvonne Hanley, Dr. James A. Hill Jr., Dr. Stephen Ikennya, Dr. Roger L. Kiesling, Dr. Beverly A. Kodama, Dr. Dianna Lenick, Mr. Robert P. Marbach, Dr. Michael J. McDevitt, Dr. Edwin A. McDonald III, Dr. Tom M. McDougal, Dr. Anita T. Myers, Dr. Kenneth E. Myers, Dr. James F. Otten, Dr. Lindsey D. Pankey Jr., Dr. Sandy L. Parrott, Dr. Richard R. Pence, Dr. Mark P. Peters, Dr. Bradly S. Portenoy, Dr. Gayle T. Reardon, Dr. Thomas H. Risbrudt, Dr. Steven J. Rosenstein, Dr. Donald R. Rozema, Dr. Bruce W. Small, Dr. Dale Sorenson, Dr. Matthew Steinberg, Dr. Carol G. Summerhays, Dr. Ronald M. Teel, Dr. Gus E. Tiboris, Dr. J. Steven Tonelli, Dr. Charles W. Vittitow Jr., Dr. Nancy A. Ward, Mr. William W. Wengorovius, Dr. George H. Winn
Oral Health Link

DIABETES MELLITUS

In the United States, about 17 million people (6 percent of the population) suffer from diabetes mellitus. This disease occurs when the pancreas produces little or no insulin, a hormone that helps the body’s tissues absorb glucose (sugar) so it can be used as a source of energy.

Diabetes mellitus kills over 400,000 U.S. residents each year, and it is the sixth leading cause of all deaths caused by disease.

In Canada, more than 2.2 million residents (7 percent of the population) have diabetes mellitus, and the disease contributes to more than 25,000 deaths a year.

The oral health complications of uncontrolled diabetes mellitus are many, including gingivitis and periodontal disease; salivary gland dysfunction; increased susceptibility to bacterial, viral and fungal infections; caries (tooth decay); periapical abscesses (collections of pus, usually from an infection that has spread from a tooth to the surrounding tissues); loss of teeth; loss of taste; and burning mouth syndrome. Susceptibility to periodontal disease is a very common complication.

Your dentist plays a valuable role in helping patients with poor glycemic control properly treat oral infections and maintain proper oral hygiene.

The dentist also may be the first to spot the signs and symptoms of diabetes and refer a patient to a physician for additional evaluation.

Studies have demonstrated that patients with insulin-dependent (Type 1) diabetes, who do not maintain rigorous control of their diabetes, experience more extensive and severe periodontal (gum) disease than patients who do maintain rigorous control of their diabetes. In one study, periodontal disease was 9.8 percent in 263 patients with Type 1 diabetes compared with 1.7 percent in people without diabetes.

In 2003, the National Institute of Dental and Craniofacial Research reported that smokers with Type 1 diabetes are 20 times more likely than those without diabetes to develop “destructive” periodontitis (advanced gum disease resulting in loss of tooth-supporting bone).

According to the National Institute of Dental and Craniofacial Research, people with noninsulin-dependent diabetes mellitus (Type 2) are three times more likely to develop periodontal disease than nondiabetic individuals.

Although fewer studies of Type 2 patients have been conducted than of Type 1 patients, research indicates that control of chronic infections such as periodontitis actually may improve glycemic control in individuals with Type 2 diabetes.

Researchers managed periodontitis in a group of Pima Indians with poorly controlled Type 2 diabetes by removing hardened plaque below the surface of the gingiva, rinsing with antimicrobial solution, and administering a two-week regimen of the antibiotic doxycycline. This combined treatment resulted in significant improvement, over a three-month period, in average blood glucose levels. A control population receiving only debridement (the removal of hardened plaque) experienced less improvement in periodontal health and did not experience reduced hyperglycemia.

Additional information may be found at:

www.niddk.nih.gov
Although I am not a dentist, I have spent nearly four decades working alongside them on a daily basis. My experiences have helped me form some fundamental beliefs about dentists and their motivations.

As a group, they aim to please their patients. They are generally uncomfortable with any type of confrontation or unpleasantness, and thus they are likely to let us, their patients, direct the course of our dental care. They often won’t assert opinions unless we invite them to do so.

Unfortunately, this may not be in our long term best interest. We don’t know what we don’t know, and if our doctor only reacts to our requests for repair of painful or unsightly dental problems, we are missing out on the optimal comprehensive dentistry our dentist has been learning.

For over three decades, the Pankey Institute has witnessed the benefits of patient involvement in decisions about their oral health care. The input of the patient and the patient’s “ownership” of personal health are extremely important.

We also know that patients benefit most when their dentist “leaves the comfort zone” to broach the subject of what more is possible to optimize health, function, comfort and beauty over the patient’s lifetime. One of the Institute’s primary functions is to help the dentist become comfortable discussing optimal oral health care options.

“Fixing one tooth at a time, without a comprehensive understanding of its role in the overall system, is like adding an unmatched golf club to a calibrated set of professional class clubs. Sometimes it works and sometimes it doesn’t, and a lot depends on the adaptability of the owner.”

What I do know for sure is that only fixing what is broken is a prescription for a mismatched set of teeth. The farther down life’s road we go, the more we will appreciate having placed an early value on our oral health and our doctor’s ability to envision a preferred dental future.

Fixing one tooth at a time, without a comprehensive understanding of its role in the overall system, is like adding an unmatched golf club to a calibrated set of professional class clubs. Sometimes it works and sometimes it doesn’t, and a lot depends on the adaptability of the owner.

The lead article in this newsletter reports the valuable insights the dentist and patient both gain via the comprehensive oral health evaluation. This evaluation is critical to forming a comprehensive plan for achieving your esthetic and oral health goals, if you have them. If you haven’t thought about the future of your teeth, begin now. The earlier you invest your time and money in responsible oral health care, the more likely you are to keep your teeth comfortably functioning and naturally beautiful for a lifetime.

The good news is that dental knowledge, materials, tools and skills have advanced to the point where your dentist can artfully help you remain dentally young and healthy, irrespective of your chronological age.

I recommend thinking past the immediacy of a problem and the quickest, least expensive fix. Help your Pankey Institute-trained dentist in developing the best plan for keeping your natural teeth for the rest of your life. An interest in understanding the benefits of comprehensive oral health care now will pay youthful health dividends later.

Featured in the next issue of Optimal Oral Health Report: “Sleep Disordered Breathing”
Creating a Naturally Beautiful Smile

by Steve Ratcliff, DDS, Director of Academic Affairs

More and more people are seeking professional help to improve their physical appearance. The boom in cosmetic surgery and popularity of the “Extreme Makeover” television show indicate that people hunger to look healthy and young.

The science and art of dentistry has matured to such a level that it is possible to restore your teeth to a young appearance while improving their function. As a result, your younger appearance lasts. Comprehensive restoration of your smile results in not only beauty but also improved health.

As part of your comprehensive evaluation, you and your dentist may have had a discussion regarding the appearance of your teeth and changes you would like to make. This may have been as simple as wanting to whiten your teeth or as complex as wanting to change their size and position. If you haven’t had that discussion in a while and want to talk about possible changes to your smile, make an appointment to discuss your desires and concerns.

After spending time with all the diagnostic aids gathered during the evaluation process, your dentist will make suggestions on how best to achieve your esthetic desires for your smile.

The best dentists understand that comprehensive dentistry includes creating the most esthetic results possible and that by restoring the proper form to the dentition, naturally beautiful and long-lasting results will follow.

The explosion in new technologies gives dentists wonderful techniques and materials to create natural beauty in a manner that was not achievable a few short years ago. Your dentist may suggest a number of ways to help you maximize the results you desire.

If you are wondering what the possibilities might be for yourself, the best dentists can help create a vision for you as you discover together what might work for you. Your dentist might prepare a wax model of what is possible in your mouth. Your dentist might show you “before” and “after” pictures of other individuals who had similar issues. You might spend time looking at images of your face and smile and altering those images until they reflect what you would like to achieve.

Whatever form the envisioning process takes, it is important to understand what you most want and then determine with your dentist how it can happen.

Because her “makeover” was done carefully, the results will be long lasting and are indeed naturally beautiful.

The results can be spectacular!