

## VIEWPOINT

### A New Paradigm for Dentistry and Medicine



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The available research on the relationship between oral infection and systemic diseases has thrust dentistry into the forefront of disease prevention. For the first time in a long time, the health benefits of good oral care are beginning to be recognized by researchers, physicians, dentists, and hygienists. Oral infection has been determined to be the source of disease-causing bacteria that can lead to or aggravate heart disease, diabetes, respiratory disease, several types of cancer, and numerous other health issues, including low-birthweight babies.

The potential impact that the oral-systemic connection will have on the future of dentistry is enormous—not only the financial benefits but also affecting the relative importance of dentistry. Dentists and hygienists should now be considered valuable partners with physicians in helping prevent systemic diseases. The research shows that diagnosing and treating oral infection reduces the risk of many systemic diseases. In short, dentistry is a vital adjunct to medicine and essential to total health. As such, dentists now have the

opportunity to turn their practices into “Dental Wellness Centers,” making a far greater impact on the health of their patients.

Historically, dentistry and medicine have been viewed as integral partners in the total health of the patient. In fact, early training of dental students and medical students has focused on the same course work, with dental students and medical students enrolled in the same classes. An old story tells of a young medical student who was trying to decide upon the area of medicine in which to specialize. He asked his wise and experienced professor, “In what area of medicine would I be able to do the most good, to prevent disease and to help my patients live longer, healthier lives?” “That is easy,” answered the professor. “Become a doctor of dental medicine.” The importance of dentistry to the total health of an individual was understood by Dr. Charles Mayo, physician and co-founder of the world-famous Mayo Health Center, when he stated very poignantly, “People who keep their teeth live an average of 10 years longer than people who lose their teeth.”

#### THE ORAL SYSTEMIC CONNECTION

Over the past 8 to 10 years, the increasing levels of research on the oral-systemic connection has provided massive amounts of data showing the relationship between oral infection and most major systemic diseases. While there are many important research studies and clinical trials yet to be done, there is ample evidence to support a new and higher standard of care in treating periodontal disease. A serious inquiry into the available research would lead anybody to the same conclusion. Waiting for additional research is unnecessary since dentistry can begin prolonging lives and improving the health for millions now. In our opinion, the time has come to implement a new standard of care.

#### A NEW STANDARD OF CARE

Virtually every dental practice in North America has some type of a soft-tissue hygiene program in effect. The problem is that many dental practices are still utilizing decades-old technology to treat a problem that was based upon a previous understanding of periodontal disease. The preponderance of



evidence from new studies clearly demonstrates *serious health risks to individuals with oral infection*. Effective treatment can significantly reduce those risks. The awareness of this threat to your patients' systemic health necessitates a greater emphasis than has generally been given in the past within the scope of periodontal treatment. Management of soft-tissue disease is simply not good enough. Dentistry needs to employ advanced diagnostics, more effective in-office therapies, better homecare regimen, and better communication and education programs. In addition, the medical community needs to become aware of its role in identifying its at-risk patients with oral infection, and to begin to advise those patients of the dangerous health risks. They also need to refer those patients for evaluation and treatment by a competent team of dental-wellness professionals.

### THE ROLE OF NEW TECHNOLOGY

The good news is that technology has made major breakthroughs in our ability to diagnose and treat periodontal disease. DNA technology now allows one to measure the predisposition of the patient toward inflammation and periodontal disease (Periodontitis Susceptibility Test [Oratec]), as well as allowing us to accurately measure the levels of pathogenic bacteria (Micro Ident Test [Oratec]). There are now in-office blood tests to determine risk factors for heart disease (CRP, Biosafe Labs) and diabetes (A1c, Cholestech). In short, dentistry serves as a vital adjunct to medicine and is essential to total health. There is even an in-office test that can directly and noninvasively measure vascular function (EndoPAT 2000 [Itamar Medical]). The use of these advanced diagnostic tools means that you can more effectively explain to your patients why they need treatment. Post-treatment follow-up testing can help determine if risk factors have been effectively reduced. In addition, follow-up testing can also help measure and monitor future changes. Most of these devices have only recently become available and were outside the scope of most programs managing soft-tissue just a few years ago.

The ability to measure results

also helps us to co-manage cases with the patient's healthcare team. More importantly, these screening tests can even help identify serious health issues long before a patient might begin showing symptoms. Testing in the dental office can help save lives!

Lasers have been shown to kill periodontal bacteria without resorting to antibiotics, and many clinicians report that they reduce pocket depth by approximately 1 mm per visit. A previous problem has been that periodontal disease, even after treatment, tends to return. This is because it is not like a broken leg where the doctor sets it and it is healed for the patient's lifetime. The patient must fight the battle every day. Home care compliance is crucial to a successful outcome and getting patients to properly brush and floss has been, and will continue to be, a problem. New, easy-to-use home care technology will increase the chance of favorable compliance and proper use; better tooth brushing (Hydrabrush [Oralbotic Research]) as well as flossing (Hydrofloss [Oral Care Technologies]). Chlorine dioxide toothpaste (Closys [Rowpar]) and rinse can neutralize volatile sulfur compounds as well as kill pathogenic bacteria. Targeted nutrition can build up the patient defense system and speed the healing response (Physicians Formula multivitamins).

### YOUR HYGIENE DEPARTMENT AS THE WELLNESS CENTER

As a practicing dentist with more than 30 years of experience, I have witnessed an incredible number of changes in my lifetime. We have made amazing leaps forward in research, technology, materials, and procedures. Most modern dental practices barely resemble the practices of 30 years ago. There is, however, one area of my practice that had remained fairly unchanged over the course of the past 30 years—my hygiene department.

I have had the opportunity over the past years to consult with several hundred dentists around the United States. The vast majority of their dental practices, and I believe the vast majority of all practices in the country today, are simply managing soft-tissue infection. The pri-

mary mission of the hygiene department, it seems to me, is to help identify necessary restorative dentistry. When it comes to oral hygiene care, hygienists are often better informed than their doctors about the latest oral-systemic research and health risks of oral infection. However, since it is the dentist's practice, his or her attitude toward hygiene will dictate the quality of care. In light of the most recent research in the oral infection-systemic disease connection, there is a tremendous and urgent need to rethink the way we run our hygiene programs.

In 2005, our practice became one of the first Centers for Dental Medicine in the country to adopt and implement an advanced comprehensive periodontal program. The implementation of this program has had a more profound impact on my practice than any other change over the past 30 years. My dental team knows that we are making a difference and helping to save and prolong lives. The difference that this has created in our entire team's sense of commitment to its profession is incredible!

I believe that the developments defined above will allow your hygiene department to reorganize itself into a wellness center where *diagnosing and treating disease can become the main focus*. This can put new life into your team as well as improved profitability. While many hygiene departments are tolerated as an unprofitable necessity, periodontal treatment can generate 3 times the value per hour of a prophylaxis appointment. Successful implementation of a wellness program can significantly increase the hygiene production contribution, thus reducing the dependence upon the doctor's production for the support of the practice.

There will be challenges to the reorganization. Patients and hygienists expect the prophylaxis visit to be about "cleanings." There may not be time scheduled to do full periodontal charting at each visit, let alone systemic testing and a periodontal presentation. The entire team will need to become true believers and educators.

While the financial benefits for both the dentist and staff are significant, dental practices that desire to



move beyond traditional periodontal maintenance will find an incredible opportunity to make a difference in the lives of their patients—not just

saving teeth but helping to save lives. You can choose to become a part of what some are saying is the most significant movement in the

recent history of dentistry. Care to join us?♦

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**Mr. Schulhof** is the CEO and Founder of Diamond Age Systems and the chief scientist for Centers for Dental Medicine. He received his master's degree in mathematical statistics at UCLA. In 1964, he began his scientific career with Hughes Aircraft Company and the Lunar Lander Program. He began his career in dental research and management in 1969 and has contributed more than 100 articles to the dental scientific and management literature. He may be contacted by e-mail at [bschulhof@qwest.net](mailto:bschulhof@qwest.net) and at (866) 546-5444, extension 3.

**Disclosure:** Mr. Schulhof is the President of Diamond Age Systems, the company that supports the Centers for Dental Medicine.

## EDITOR'S PAGE



### New Concepts May Lead to Formidable Change

Periodontics continues to be a major focus of the profession, with the introduction of new treatment modalities and concepts of care. It is especially interesting to observe the changes taking place due to the recent discoveries related to the oral-systemic health connection. The challenges and benefits that this new information brings to dentistry and patients will likely prove to be on a scale unlike anything that we have seen in quite some time. Not only are these findings beginning to change how diagnosis and treatment planning are handled, they will dramatically reshape how patients regard the role of the dentist and hygienist in their overall physical health.

This will lead to the need for additional continuing education, revisiting one's practice philosophy, and the implementation of new diagnosis and treatment protocols with complementary modifications to existing practice business systems. Additionally, dentists and physicians will be required to work more intimately together while making collaborative efforts on behalf of their patients' health. No doubt, the changes that will be occurring over the next few years may be formidable, but the potential rewards will likely prove

worth any adjustments needed by health professionals.

In this issue focusing on periodontics, Dr. Lou Graham discusses a comprehensive approach to periodontal therapy, introducing additional applicable therapies. Dr. Herbert I. Bader talks about the importance of suppressing the inflammatory response in the periodontal patient. In the Viewpoint article, Dr. Michael O'Brien and Robert Schulhof suggest a different practice model in order to deliver care effectively under a new dental-medical paradigm. Also relevant to oral-systemic health is the continued fight against oral cancer. Dr. Louis Malcacher diplomatically challenges the profession and encourages the use of a self-screening examination in addition to professional examinations.

In our cover feature, Dr. Stanley F. Malamed presents an excellent update on local anesthetics and pain control. In our only peer-reviewed, CE-accredited article, Dr. Randy Weiner continues his comprehensive review of liners, bases, and cements.

In restorative- and aesthetic-related articles, Dr. Douglas L. Lambert discusses the advantages of preheating posterior composites prior to placement; Dr. Tony Pensak demonstrates the use

of an innovative aesthetic fiber-post system; Dr. Tif Qureshi shows when orthodontic care can be a less-invasive alternative to restorative cosmetic dentistry; and Dr. Marc Liechtung uses a specialized prosthetic appliance to solve aesthetic challenges during implant treatment.

In other articles of importance, Drs. Richard E. Mounce and Gary D. Glassman share their insights on handling endodontic retreatment cases; Drs. Michael J. Wahl and Jean A. Wahl explain why "radical" treatment may sometimes be a better option; Dr. Joseph Whitehouse demonstrates how technology has dramatically helped in implant placement; Clare Van Sant, RDH, discusses care issues related to the geriatric patient; and Dr. Todd R. Schoenbaum continues his 5-part series on launching your practice into cyberspace.

We sincerely hope that you enjoy this issue of *Dentistry Today*!

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EDITOR-IN-CHIEF