

# UPDATE ON PATIENT CARE

*Helping your patients maximize  
between-visit oral health.*

## The Oral-Systemic Link: How it Affects the Relationship Between Dentists and Patients

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*The association between* oral and systemic diseases is changing the future of dentist-patient relations. Both dentists and patients, as well as healthcare providers, need a full understanding of not only the dental and periodontal concerns of the patient, but of those health problems that affect the patient's entire body. The best way to combat these problems is to open the lines of communication between all parties, and make sure that all of the necessary information is shared and understood by all. This can be done in a number of ways: by increasing the level of education in dental patients, increasing the level of customer service provided in dental offices, and increasing communication between dentists and other healthcare providers. If dentists, patients, and healthcare providers all work together, there can be significant progress made in the connection between oral and systemic diseases.

The oral-systemic link has been noted and emphasized in many places. There are two emerging theories about the oral-systemic link. The bacteremia theory links oral infection and systemic disease. The inflammatory theory is more narrow and links oral infection with cardiovascular disease (CVD) and adverse pregnancy outcomes.<sup>1</sup> Recent studies have shown that periodontal treatment may decrease over all systemic inflammation and improve endothelial function.<sup>2</sup>

There are two primary oral conditions that can have serious consequences for the whole body: caries and periodontal disease.<sup>1</sup> These conditions, along with others such as gingivitis, can have serious effects on the overall health of the body and can affect conditions like CVD, diabetes, pulmonary disease, and stroke. Chronic infections, which can include periodontitis, may predispose someone to CVD, according to the Oral Infections and Vascular Disease Epidemiology Study.<sup>1</sup> There are also certain species of oral microorganisms that may be risk factors for acute coronary syndrome.<sup>2</sup> However, the three systemic conditions that seem to have the strongest link to oral issues are adverse pregnancy outcomes, cancers of the head and neck, and osteoporosis.<sup>3-5</sup>

### SYSTEMIC CONDITIONS AND THE ORAL-SYSTEMIC LINK

#### Adverse Pregnancy Outcomes

Pregnancy poses many risks to a woman's body, and oral infections are certainly included in those risks, as they can lead to systemic infections. Gum disease especially can put future mothers at risk for complications during pregnancy. Studies show that about 15% of mothers who deliver premature babies have microorganisms from gum infections that have migrated to the amniotic fluid.<sup>3</sup> And this is just one of the risks of which expectant mothers must be aware.

During pregnancy, gum tissue is more sensitive to plaque, and approximately 50% of pregnant women experience "pregnancy gingivitis."<sup>3</sup> Even a mild inflammation of the gums can increase the risk for complications during pregnancy, as oral bacteria and toxins can circulate through the system and cause inflammation in the entire body. These infections and inflammations may be a cause of preterm birth.<sup>3</sup>

Popular opinion dictates that it is not entirely safe for pregnant women to seek dental or periodontal care, but the reality is just the opposite. It is necessary for expecting mothers to keep up a regimen of dental care, and to openly discuss any concerns with their dentists or hygienists, as well as their obstetricians.

#### Head-and-Neck Cancer

Dental and periodontal treatment is also of utmost importance for those suffering from cancer of the head and neck. The mouth is the primary source of complications for patients afflicted with these diseases, so it is necessary that their mouths be in the best possible health before they begin any radiation or chemotherapy treatments.<sup>6</sup> Certain medications used during chemotherapy may put patients at risk for erosion of the jawbones,<sup>4</sup> which can cause dental complications once treatment is complete.

The most effective way of limiting these complications is for cancer patients to voice any and all concerns to their dentists and healthcare providers. The key to

oral treatment in head/neck cancer patients is pretreatment evaluation. A dentist or hygienist can work with a patient to create a dental treatment plan to ensure the lowest risk of complication before, during, and after treatment. Any invasive work should be done before the cancer treatment, but discontinuing dental treatment after that point can open the door for infection, which can lead to local and systemic infection.<sup>6</sup>

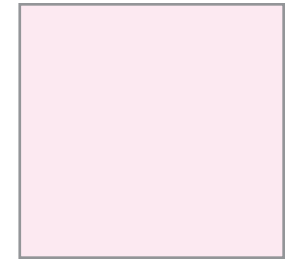
#### Osteoporosis

Osteoporosis is another systemic disease that goes hand-in-hand with oral disease. The weakening of the bones can affect dental implants or other dental work if the jawbone is too weak to withstand the work.<sup>5</sup> Periodontitis may serve as a marker for osteoporosis,<sup>5</sup> and in this regard it is essential that dentists and doctors work together to provide the best possible care for the patient. Patients with either oral or systemic bone loss will benefit from collaborative treatment with the patient's regular healthcare provider.<sup>5</sup> Systemic bone loss can affect the mouth as well as the rest of the body, and thus a dentist would not only be helpful but essential in the treatment and management of osteoporosis.

Despite all of these perceived links, the potential of a periodontal infection's systemic effect is not entirely clear. Rather than waiting for a clear link to be established, the dental community needs to use the information it already has to begin its collaboration with the medical community in an effort to provide the best possible care for all patients. Treatment of periodontal disease will reduce the cumulative effect of inflammation on the body, and the cumulative measure of infection is what has the most risk for systemic inflammation.<sup>7</sup>

#### A CHANGE IN DENTIST-PATIENT RELATIONS

How can patients become aware of the oral-systemic risks that have already been embraced by the dental community? The best approach is for dentists to communicate openly with their patients at all times, and to encourage patients and healthcare professionals to do the same.



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But how can the lines of communication be opened?

While a dentist's primary responsibility is to provide dental care for his or her patients, the dental office must be run like any other business, and focus first and foremost on customer service. It is imperative that the office builds a base of loyal customers, those that will come back to the office time and time again. Many of today's leading dental practices are based on the concept of "Killer Customer Service."<sup>8</sup> For a dentist's office to provide "Killer Customer Service," it must make the patient feel like they are being treated well at all times. If a patient does not have to wait too long to see their dentist, he or she will be more open to hear what the dentist has to say. If the staff in the office truly listens to their patients instead of just pushing them through the office system, then the patient will be more open to communication.

A patient must trust the dentist, hygienist, and the other staff members in the office if he or she is to be educated on any significant dental or medical issues. This trust and open communication is the most important first step in opening the door between dentists and medical professionals to establish and work with the oral-systemic link.<sup>7</sup>

The dentist must emphasize the need for collaboration to the patient. This may include writing a letter to the patient's regular physician or specialist to open the lines of communication and discuss any issues relevant to oral-systemic risks. It is also very important that the patient is fully educated as to his or her own oral conditions so that he or she can give the full report to a healthcare professional. In the same respect, the patient must inform his or her dentist of any medical conditions, any medication being taken, and the general status of his or her physical health. The hygienist in the office should be able to work with the patient to develop a personalized care plan that takes all of these factors into account.

#### CONCLUSION

The most important thing to remember when linking oral and systemic diseases is

that change must come from within the dental community first. As a dentist, you must be able to reach out to your patients and their healthcare providers. Many healthcare providers are now beginning to recognize periodontal infection as a risk factor for the prevention of serious systemic conditions.<sup>7</sup> Now it is up to the dental community to ensure that by collaborating and maintaining open lines of communication, the patient is always receiving the best possible care.

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