



Mouth-Body Connection

Health or Heroics?

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Much has been written over the years about the mouth – body health connection. It has been well documented that the mouth is a portal to total body health. Diseases of the mouth, i.e. periodontal disease, tooth abscesses, and other oral infections can aggravate many health problems.

Heart disease, diabetes, and kidney disease are just a few of the many health problems that are aggravated by oral problems.

Sometimes the offending teeth and bone are so infected, that the only treatment is tooth extraction. The removal of the offending teeth can eliminate the infection and inflammation that affects overall body health. Many patients see their heart disease, diabetes, and kidney disease improve when their mouth becomes healthy.

The risk of heart attack and stroke goes down when the inflammation is removed from the mouth. Diabetics find it is easier to control their blood sugar.

When a patient loses their infected teeth and becomes partially edentulous, their general health can improve. However, there can be a trade off. Partially edentulous patients can have problems of their own. The unreplaced loss of teeth leads to an unstable bite.

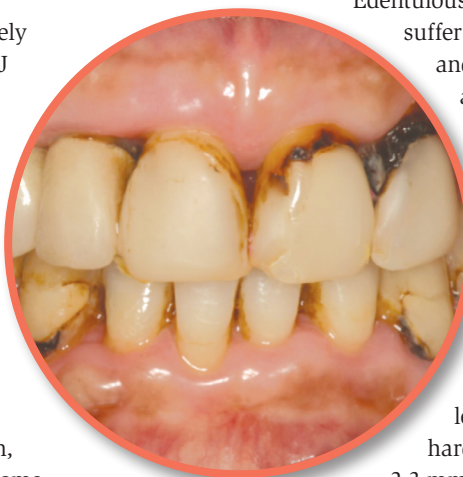
They are more likely to suffer from TMJ dysfunction. This can be a continuum that leads to more tooth loss, headaches, and joint dysfunction. If enough teeth are lost with the ensuing loss of vertical dimension, these patients become very susceptible to obstructive sleep apnea.

Of course, this can be stopped by replacing the lost teeth. Unfortunately,

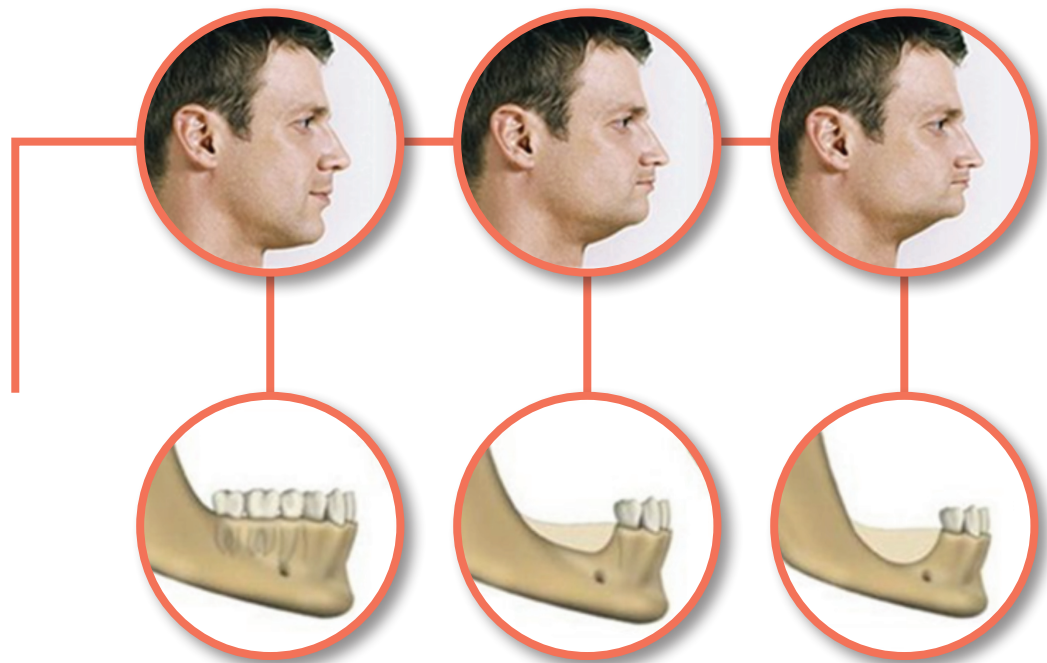
too many times this does not happen. Patients tell us that they can chew just fine and do not need to replace the missing teeth. Eventually more teeth are lost because of the loss of support, until many patients decide to have all their remaining teeth removed.

Edentulous patients no longer suffer from tooth infections and inflammation, but are now subject to a whole host of new problems.

The first problems that edentulous patients have to deal with are esthetics and speech. They have to learn to talk with their hard palate covered with 2-3 mm of acrylic. With their palate covered, cold foods do not taste cold, and hot foods do not taste hot. Denture wearers lose the sensation of texture when they eat. Esthetics suffers when all the teeth are removed.



Bone Loss After Tooth Extraction



Patients lose several millimeters of bone within the first six months after extractions. They continue to lose bone (at a slower rate) for the rest of their lives. Most dentures do not replace this lost bone height, resulting in the “denture look.” These patients’ faces are collapsed with a loss of facial lip support. This makes most patients look older than they are.

Denture wearers (without implant support) only have 10%-20% the chewing efficiency of fully dentate patients. Many times this loss of chewing efficiency causes the diet to change. This can lead to a lot of health problems. The National Institute of Health (NIH) reports many health problems related to these dietary changes.



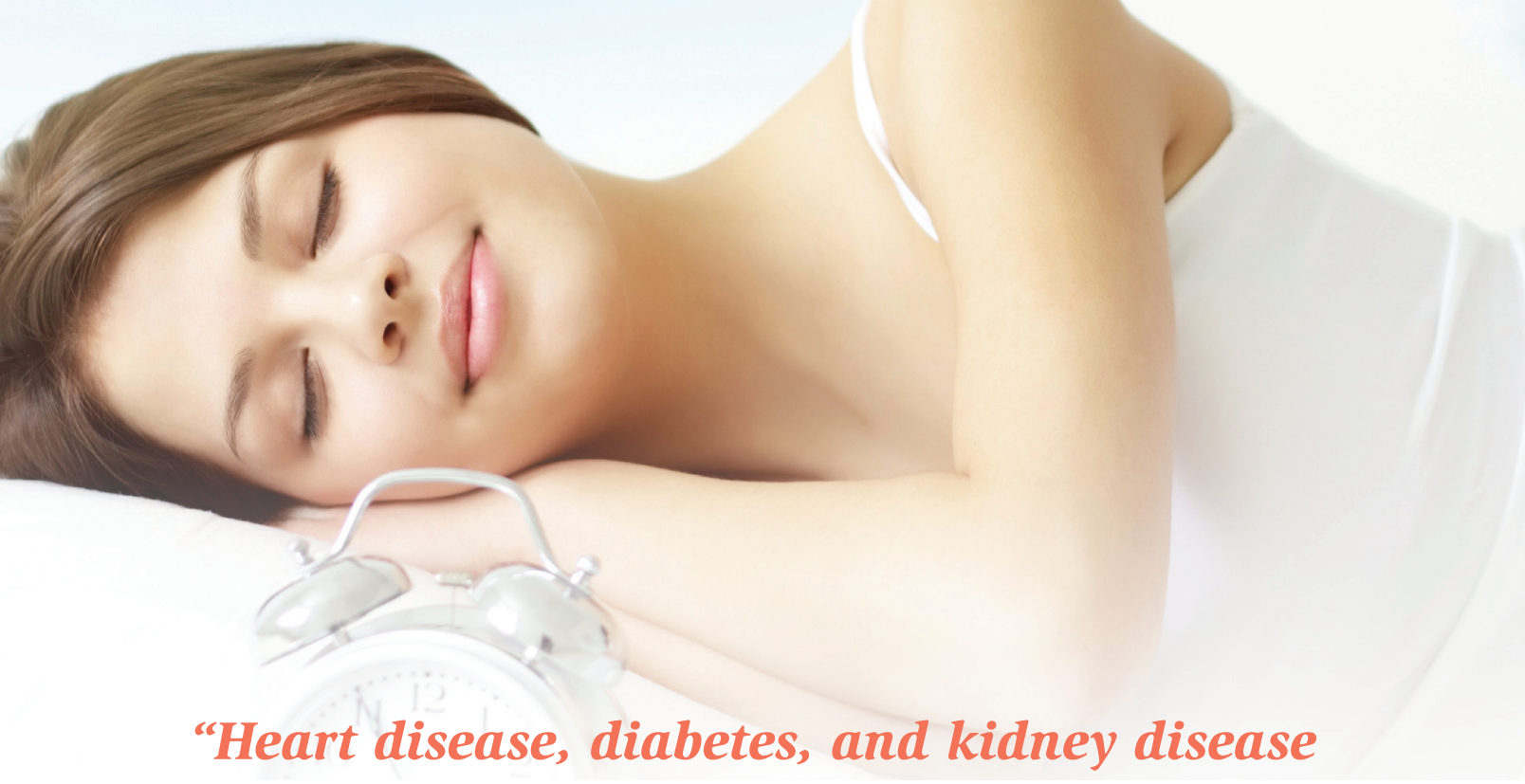
These dietary changes lead to a lower intake of fruits and vegetables, fiber, and carotene, and an increased intake of cholesterol and saturated fats. Furthermore, excessive intakes of highly processed high-fat and high-carbohydrate foods contribute to obesity and obesity-related

diseases, such as insulin resistance, cardiovascular disease, and hyperlipidemia. In addition to a higher prevalence of obesity, this can increase the risk of cardiovascular diseases and gastrointestinal disorders. The NIH also reports increased rates of chronic inflammatory changes of the gastric mucosa, upper gastrointestinal tract, pancreatic cancer, and higher rates of peptic or duodenal ulcers. A study also demonstrated a

possible association between complete edentulism and an increased risk of coronary heart disease. Furthermore, a more recent large prospective study concluded that the number of teeth was a dose-dependent predictor to cardiovascular mortality.

The Nation Institute of Health also states that there is an association between edentulism and sleep-disordered breathing, including obstructive sleep apnea. Complete tooth loss (edentulism) produces anatomical changes that may impair upper airway size and function.

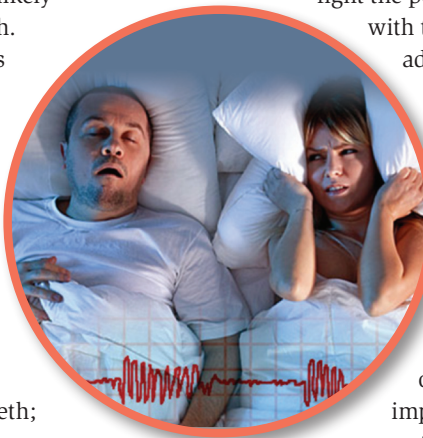
Bucca, et al. conducted a study that was published in 2006 in Respiratory Research to evaluate whether edentulism favors the occurrence of obstructive sleep apnea (OSA). Their findings suggest that complete tooth loss favors upper airway obstruction during sleep. This untoward effect seems to be due to decrease in retropharyngeal space and is associated with increased oral and exhaled NO concentration.



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Therefore, it seems that patients are likely to be healthier if they keep their teeth. But what do we do about the patients with chronically infected teeth and bone? If they keep those teeth, they compromise their general health. If all the teeth are removed, they also compromise their general health. They are damned if they do, and damned if they don't. This author suggests that those “terminal” teeth be removed and replaced. Remember, lost teeth are replaced to keep from losing more teeth; not so the patient can chew better.

If all the teeth are lost, they too must be replaced. If edentulism is in a patient's future, then the dentist can make them a denture that maintains or restores the patient's facial profile and lip support. This will help



fight the potential OSA problems that could occur with the loss of space in the “bony box.” In

addition, we encourage our patients to incorporate implant support into their prostheses. People with dentures can only chew 10% as efficiently as people with natural teeth. If implants are placed to “retain” these dentures, (locators or o-rings), their chewing efficiency improves to about 50%.

If enough implants are placed (4-8) to totally “support” the denture (bar or fixed hybrid), the chewing efficiency improves to 90%.

We encourage all of our patients to incorporate implants into their treatment plan. Most see the advantage of the improved chewing efficiency and choose some sort of implant support. Now our patients can eat anything they like. With this improved diet, many nutritional health problems can be avoided.

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