

## Dental Issues Related to Pulmonary Diseases

*Dental and respiratory health are interrelated. Dental bacteria, when aspirated, can increase susceptibility or complicate the management of pulmonary diseases such as pneumonia, bronchitis, and chronic obstructive pulmonary disease. The risk is greater in immune-compromised individuals.*

American Thoracic Society

### **Chronic Obstructive Pulmonary Disease (COPD)**

**INFLAMMATION!** It's part of the body's response to infections and injury. Intense but brief inflammation is good ---- an "attack" is quickly resolved. But inflammation becomes chronic and potentially harmful when problems persist. Body parts and their function can be damaged.

Chronic inflammation associated with **emphysema**, **chronic bronchitis**, and **COPD** develops from smoking, air pollution, and other persistent irritants that cause ongoing harm to the lungs.

Chronic inflammation is also associated with periodontal disease, a bacterial infection of the gums and underlying bone. The gums become red and puffy. Teeth can become unstable as the bone to which they attach is damaged.

COPD inflammation can be aggravated when bacteria that cause dental cavities and periodontal disease are inhaled into the lungs.

When parts of the body become inflamed, they release substances that function as "inflammation messengers." Inflammation in one location, such as around teeth with periodontal disease, can thereby intensify the inflammatory response in another area, such as lungs dealing with COPD. Together they can contribute to overall inflammation.

A "dry mouth" is a common problem associated with COPD. Beyond being unpleasant, it contributes to dental problems. Medication in inhalers can add to the complication (see section on reverse side).

Medicare generally does not cover routine or complex dental and/or oral health care, even when such care is essential to the treatment or management of an underlying medical condition (some private Medicare Advantage plans offer limited coverage). The Center for Medicare Advocacy strongly supports adding a comprehensive oral health care benefit to Medicare and expanding coverage for medically necessary oral care, because the mouth is a part of the body and oral health impacts overall health.

**The Center encourages Medicare beneficiaries to share their oral health stories** and tell elected officials why oral health coverage is important to them. To do so, email the Center at [OralHealth@MedicareAdvocacy.org](mailto:OralHealth@MedicareAdvocacy.org).

COPD damage cannot be cured or reversed. It can be managed with medication. Periodontal disease, however, can be prevented with conscientious oral hygiene. It can also be treated if it develops. Strange as it may seem, maintaining excellent dental health is therefore one way to help cope with COPD.

### **Pneumonia**

Pneumonia is an infection in the lungs caused by bacteria, viruses, or fungi. Dental cavities and gum disease are bacterial infections. The dental bacteria can be breathed into the lungs. In healthy lungs, our immune system generally defeats and removes those bacteria. But risk of the bacteria triggering pneumonia is increased if our natural defenses against infection are weakened by other diseases (e.g., uncontrolled diabetes), cancer drugs, and medications intended to suppress the immune system to control autoimmune diseases such as Lupus or Rheumatoid Arthritis.

### **Inhaler Meds and Thrush**

Drugs are used to dilate airway tubes tightened and narrowed by asthma and COPD. The medications are inhaled, but not all of it gets into the lungs. Some may remain in the mouth where they can cause Thrush (candidiasis), a fungal infection that develops on the tongue, cheeks, and throat. The fungus is normally present in the mouth, but it can multiply out of control as a side effect of some inhaler medications. It creates white patches which can become painful. They may bleed and cause a burning sensation. Nystatin and other anti-fungal drugs are used to treat the condition. To help prevent the problem most inhaler medications come with advice to rinse with water and spit after each use. Spacers can help by directing more of the medication into the lungs so less remains in the mouth.

### **Inhaler Meds and “Dry Mouth”**

Inhaler medications also have a drying effect in the mouth. Some can also reduce saliva production. That increases the risk of developing dental problems since saliva is protective against dental diseases.

The impact may be intensified by diabetes and other diseases which can also reduce saliva production. Antihistamines, decongestants, medications for high blood pressure and other conditions can also worsen a dry mouth, as can smoking and non-humidified supplemental oxygen.

Drinking water frequently helps, as can sucking on ice chips and using a mouth spray intended for dry mouth. Avoid coffee, other caffeinated beverages, and alcohol. They can add to the dryness. Chewing sugarless gum or sucking on sugar-free candy between meals can stimulate saliva production. Avoid those with sugar as they increase the risk of cavities. On the other hand, those sweetened with xylitol can help prevent cavities and the buildup of bacterial dental plaque.

Artificial saliva products and alcohol-free mouthwashes can relieve the dentally harmful effects of a dry mouth. Prescription medications to stimulate saliva production are an option that may be worthy of discussion with your medical provider or dentist.

## **Reduce the Risk of a Vicious Cycle**

Dental infections can be the source of bacteria that may create or worsen lung infections. Associated dental inflammation contributes to overall inflammation, which can intensify inflammation linked to COPD and asthma --- aggravating symptoms. Yet medications needed to help manage those conditions can create dental problems, resulting in a vicious cycle.

Reduce the risks of that vicious cycle and related complications with excellent oral hygiene. Brush at least twice daily with a fluoride containing toothpaste, and floss to clean between teeth. Rinse and spit after using inhaler medications. Talk to a dentist about the possible value of a supplemental fluoride rinse to prevent cavities, and a chlorhexidine or other germicidal oral rinse to reduce the population of bacteria that contribute to dental diseases.

## **Sleep Apnea**

CPAP units can cause a dry mouth, which increases the risk for dental issues. If dryness is a problem, CPAP humidifiers are an option to provide relief. Oral appliances may be an option, too, by moving the lower jaw and tongue forward to improve airflow.

*The inherent dignity of every person is reflected through a healthy smile.*