

## Pneumonia and your mouth...

### or put your health where your mouth is.

We see an increase in pneumonia during the winter months as cold weather comes upon us. More family visits during the holidays puts more people together and it seems as if everyone has a cold or the flu...optimum conditions to infect your loved ones! Nursing homes and assisted living facilities recognize the connection and start placing signs at their front door to the gist of, "If you have any symptoms of a cold or flu please postpone your visit." They recognize that what may be a short-term nuisance to a younger, healthier person could mean a battle with the flu, pneumonia, or worse, to an elderly person with compromised health. Compared with community-dwelling persons, residents in long-term care facilities have more functional disabilities and underlying medical illnesses and are at increased risk of acquiring infectious diseases. Pneumonia is the leading cause of morbidity and mortality in this group. (American Academy of Family Physicians, 2004)

A relatively unknown cause of pneumonia is poor oral health and poor oral hygiene. Scientists have found that bacteria growing in the oral cavity can be aspirated into the lung to cause respiratory diseases such as pneumonia, especially in people with periodontal disease. This discovery leads researchers to believe that these respiratory bacteria can travel from the oral cavity into the lungs to cause infection. (American Association of Periodontology, 2008) Poor oral health is often a problem in the elderly, and dental plaque contributes to the presence of pneumonia-causing bacteria, which can enter the lower respiratory tract through silent aspiration. Recent research has shown that providing dental care to nursing home residents can reduce both the incidence of pneumonia and the costs associated with its treatment. Scientists reviewed 1700 studies and found "a variety of oral interventions improving oral hygiene through mechanical and/or topical chemical disinfection or antibiotics reduced the incidence of nosocomial (any infection that first occurs during a patient's stay at a health-care facility) pneumonia by an average of 40%." (Annals of Periodontology, 2003). That means brush, floss, and rinse!

I can't even count the number of times I've heard, "I can't wait until I have dentures...then I don't have to see a dentist ever again!" Patients actually do say that and believe it. Never mind that you have only 25% of the chewing ability with full-dentures than with natural teeth. And, that dentures can harbor a plethora of pathogens....bacteria and yeast reside in the calculus that can grow on denture acrylic as easily as it grows on teeth. And, these pathogens will penetrate the acrylic and live inside the outer layer of the plastic, constantly in contact with the tissue. In addition to causing an ulcer or sore that will irritate the tissue, there is a more serious consequence to having these unwanted guests: yes, pneumonia again. A Japanese study showed that wearing dirty dentures resulted in an increase in pneumonia occurrence by 50% over patients who cleaned their dentures properly everyday!! The study results help debunk the notion that people without their own teeth have fewer dental-related systemic diseases at

similar rates regardless of the presence of original teeth. Additionally, patients without their own teeth benefited from oral care to the same degree as did patients with teeth.

See below *before* and *after* pictures of a patient's denture that had not been cleaned more than once every 2-3...years! Calculus with bacteria and yeast thrive here. It is no wonder that the patient had a candidal infection that would not resolve even with medication. The source of the yeast had not been removed! The after picture is how a properly maintained denture should look.



*Before*



*After*

Many other factors have also been linked to lower respiratory tract infection risk in the elderly. Oral clearance and salivary flow keep pathogenic bacteria from colonizing the oral cavity, and medications (e.g., antihistamines, antidepressants, anti-parkinson agents, diuretics) or conditions that disrupt salivation and oral clearance are implicated as important pneumonia risk factors. Conditions that predispose to aspiration (e.g., stroke victims or patients with Alzheimer's disease) are important risk factors for respiratory tract infection as well. Other pneumonia risk factors include malnutrition and hypoalbuminemia, chronic organ dysfunction (e.g., structural lung disease, congestive heart failure, renal failure), hospitalization or residence in a long-term care facility, or viral infection (e.g., influenza, rhinovirus). (Geriatric Times, 2005)

So, will brushing your teeth, cleaning your denture, and seeing your dentist every three months prevent you from having pneumonia? No, but doing these will greatly reduce the risk of an elderly person residing in a long-term care facility developing pneumonia. So, encourage your residents to have regular dental check-ups for optimum oral and body health!