

Did You Brush Your Teeth Today? Oral Health and Osteoporosis

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Submission: 📅 September 10, 2017; Published: 📅 September 22, 2017

Editorial

- Is oral osteoporosis (jaws bone loss) a component of systemic osteoporosis (systemic bone loss, with or without fracture)? Or only an accompanying manifestation of periodontal disease?
- Is systemic osteoporosis a risk factor for periodontitis?
- Is systemic osteoporosis a risk factor for Oral osteoporosis independent of periodontitis?
- Is periodontitis the primary risk factor for Oral osteoporosis?

Mouth is a small model for the body as it contains examples of virtually every type of tissue, each of which provides examples of how cells and tissues change with aging, however this changes do not occur separately resulting in "Normal Aging" of the mouth [1].

Risk Factors <small>American Academy of Periodontics 2011</small>			
Risk factors for OP		Risk factors for PD	
Non-Modifiable	Modifiable	Non-Modifiable	Modifiable
Age	↓ Calcium	Age	Smoking
Race	↓ Vit.D	Race	Disease(Diabetes)
Gender	↓ Exercise	Gender	History of bone Loss
Early menopause	Smoking	Heredity	Medications(Steroids)
Family History of OP Fracture	↓ Bone Mass		Poor oral Hygiene
Thin ,small body frame	Medications(Steroids)		Lake of professional care
	Hyperparathyroidism		↓ Calcium
	Alcohol		↓ Vit.D

Figure 1: Common risk factors for osteoporosis and periodontitis.

Periodontitis starts as gingivitis when plaque is not adequately removed from the tooth surface. If untreated, can progress causing bone destruction and eventual tooth loss that could be localized or generalized. Like osteoporosis, periodontitis is a silent disease, not causing symptoms until late in the disease process, such as mobile teeth, abscesses, and tooth loss [2]. Both periodontitis and osteoporosis represent major health problems, with increased incidence and severity with advancing age, all over the world. Both periodontitis and osteoporosis are abone-resorptive diseases. Both periodontitis and osteoporosis are age related diseases, with a common risk factors, common mechanisms and bidirectional

relationship. Periodontitis is associated with a number of chronic diseases including osteoporosis [3] (Figure 1).

Periodontitis is an inflammatory disease characterized by loss of connective tissue and alveolar bone. Like osteoporosis, it is a silent disease, not causing symptoms until late in the disease process, such as mobile teeth, abscesses, and tooth loss. Osteoporosis, though not being the initial cause of periodontitis, has been shown to be a risk indicator that may contribute to the progression of periodontitis [4]. Osteoporosis and periodontitis are two diseases commonly concomitant in elders [5]. Aging does not a cause for oral diseases, but oral diseases, including tooth loss, are more common with age. This is partly due to elder persons having been alive longer and consequently, having had a longer time for the effects of poor oral hygiene to accumulate [6]. Systemic osteoporosis includes loss of bone density in the alveolar bones that support the teeth. Anatomically, alveolar bone is the bone of the maxilla and mandible that contains the alveoli for the teeth. It provides support and protection for the teeth [7] (Figure 2).

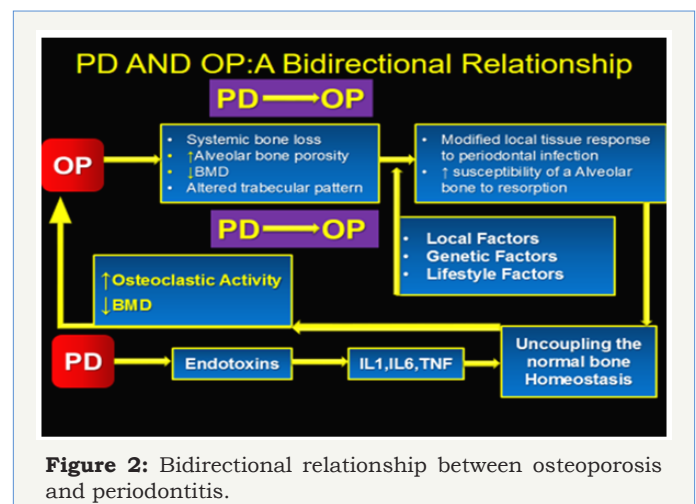


Figure 2: Bidirectional relationship between osteoporosis and periodontitis.

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