1. Aging and the Periodontium

Aging and the Periodontium

2. Masticatory Efficiency

Masticatory Efficiency

- Slight atrophy of the musculature
- Reduction of efficiency due to loss of teeth or poor replacement
- Poor chewing ability = associated digestive disorders = dietary changes
- May develop avitaminosis
- Particular importance of fiber, vitamins, and low fat in diet
3. Cumulative Effects of Aging

Cumulative Effects of Aging

- Important to differentiate pathology from the aging process
- Increased plaque accumulation due to architecture, medications, and a reduction in immune response
- Inflammation develops more quickly and wound healing more slowly
- Rapid forms of periodontal disease seen in young people and older individuals suffer from more slowly progressive forms

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4. General Features of Aging Found in All Tissues

General Features of Aging Found in All Tissues

- Tissue desiccation
- Diminished reparative ability
- Reduced elasticity
- Altered cell permeability

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5. Age Related Changes in the Periodontium

**Age Related Changes in the Periodontium**

- Gingiva and mucosa
- Periodontal ligament
- Alveolar bone and cementum
- Tooth-periodontium relationships

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6. Gingival Aging

**Gingival Aging**

- Diminished keratinization
- Possibly reduced stippling
- Increased width of attached gingiva
- Decreased connective tissue cellularity
- Reduced oxygen consumption
- Thinning of the epithelium

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7. Alveolar Bone

**Alveolar Bone**

- Osteoporosis
- Decreased vascularity
- Reduction in metabolic rate and healing capacity
- Density may increase or decrease with age

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8. Cementum

**Cementum**

- Greater irregularity
- Continuous deposition with age
- Width of cementum at 76 years is three times that at 11 years of age

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9. Tooth-Periodontium Relationships

**Tooth-Periodontium Relationships**

- Loss of tooth substance due to attrition
- Reduction in cusp height and inclination due to wear
- Bone loss results in increase in crown/root ratio
- Tooth wear tends to modify increase in crown/root ratio

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10. Tooth-Periodontium Relationships (Continued)

**Tooth-Periodontium Relationships (Continued)**

- Wear on proximal surfaces results in physiological mesial drifting
- Most pronounced wear in teeth that taper towards the CEJ (incisors)
- Reduced maxillary/mandibular molar overjet and an edge to edge bite anteriorly

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Nellie W.

- 83 year-old white female
- Loss of masticatory efficiency due to tooth loss and poor replacement
- Attachment loss due to recession
- Excellent oral hygiene and high dental IQ
- Reduced chewing ability

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