

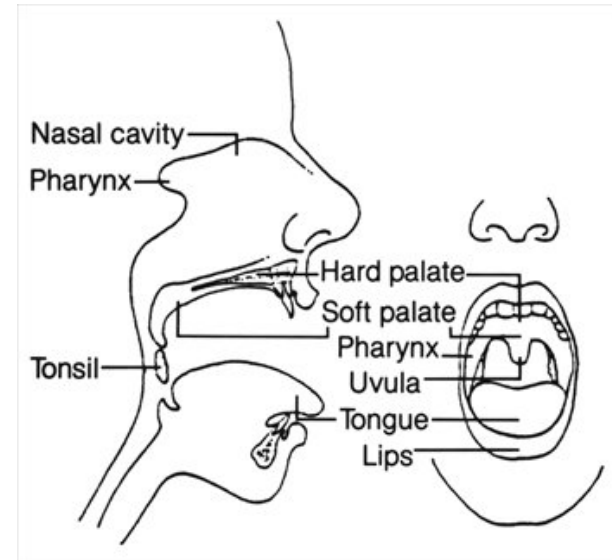
An introduction to bacterial infections of the oral cavity and surrounding structures

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Background



Predisposing factors: extreme age, pregnancy, trauma, malignancy, malnutrition, immunosuppression, chronic infection, antibiotics, poor dental hygiene

Microorganisms: polymicrobial, biofilm, affected by nutrients, pH, Oxygen availability, other species, host defences

Pathogenesis: change in local conditions including trauma, bacterial overgrowth, direct pressure, inactivation of PMLs, local spread, dissemination via blood stream

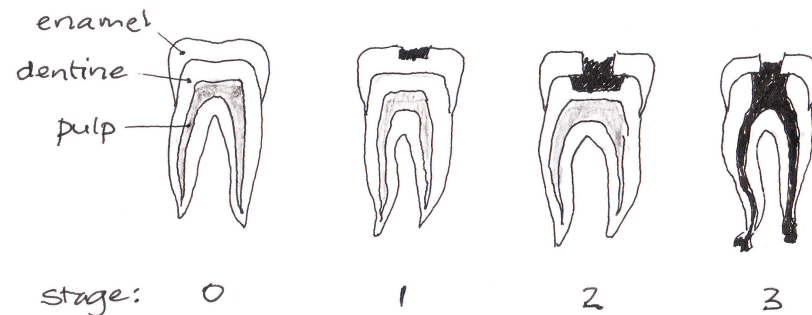
Caries

Bacteria: *Streptococcus mutans*, *Lactobacillus* sp.

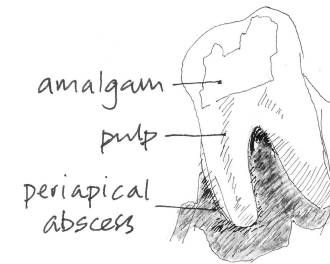
Location: enamel

Pathogenesis: supra/subgingival plaque, bacterial biofilm, acidic pH, fissures, cavities, vulnerable sites, complications

Management: personal dental hygiene, restoration of defects, prophylaxis in selected cases



Dental abscess



Bacteria: oral streptococci, anaerobic bacteria, *Actinomyces sp.*, others

Location: periapical, periodontal

Pathogenesis: localised collection of bacteria, PMLs & tissue breakdown, direct pressure, leading to cellulitis, tracking via line of least resistance & bone destruction, loss of tooth, distant infection

Clinical: toothache, pain on chewing, sensitivity, bitter taste, halitosis, increased mobility, tenderness, swelling, erythema, lymphadenopathy

Management: eliminate infection, root canal surgery, preserve tooth if possible, selective use of antibiotics

Vincent's angina

Synonyms: acute necrotising ulcerative gingivitis, trench mouth

Bacteria: fusiform & spirochaete bacteria

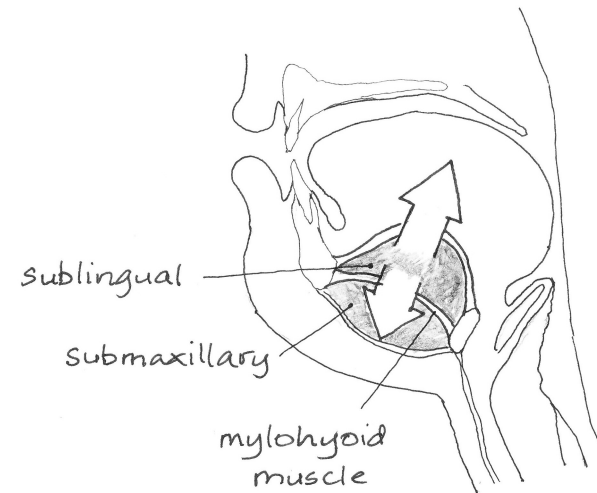
Location: gingivae

Pathogenesis: not fully understood

Clinical: rapid onset, pain, altered taste, punched-out ulcers,
grey exudate, fever, malaise

Management: debridement, antibiotics, mouthwash with
oxidising agents

Ludwig's angina



Bacteria: anaerobic bacteria & oral streptococci

Location: submandibular & sublingual spaces

Pathogenesis: rapidly spreading cellulitis without abscess formation, starting in floor of mouth

Clinical: bilateral, brawny, board-like swelling in submandibular spaces, rapid progression to involve neck & glottis, difficulty swallowing and possibly with breathing

Management: monitor airway, intubate early, intravenous antibiotics, surgical decompression in extreme cases

Osteomyelitis

Bacteria: variety including oral streptococci, anaerobic bacteria, staphylococci, actinomyces

Location: mandible

Pathogenesis: periodontal disease, dental abscess, other factors e.g. trauma

Management: monitor bony changes, prolonged course of antibiotic therapy, condition of remaining teeth

Bacteraemia

Bacteria: oral bacteria

Location: systemic circulation

Pathogenesis: immediately after dental procedures e.g. scaling, probing, root canal work

Management: selective use of antibiotic prophylaxis in high risk patients/procedures

Other notable infections

Streptococcal pharyngitis: *S. pyogenes* (gp A), painful red throat, common; unusual complications including RF, RHD, ASGN, SC

Tonsillitis: bacterial

Exudative pharyngitis: EBV (glandular fever), gonococcal infection

Syphilis: chancre, tertiary infection

Diphtheria: painful, exudative, pseudomembranous tonsillar exudate

Summary

- Background
- Caries
- Dental abscess
- Vincent's angina
- Ludwig's angina
- Osteomyelitis
- Bacteraemia
- Other notable infections

http://en.wikipedia.org/wiki/Dental_caries