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HALITOSIS

Halitosis, known as "bad breath", could be defined as an unpleasant or offensive odour emanating from the breath, arising from either extra-oral or intra-oral sources. The prevalence of halitosis is about 31%. Halitosis may be perceived or actual but could lead to social distress and reduced quality of life.

Classification:4,5

- 1. Genuine halitosis—usually physiological or pathological.
- 2. Pseudo-halitosis no identifiable cause or obvious malodour.
- 3. Halitophobia—the patient worries that those around her/him might find her/his breath offensive.

Odours can be: Rotten cabbage, rotten eggs, sweet, musty, fruity, fishy, pungent

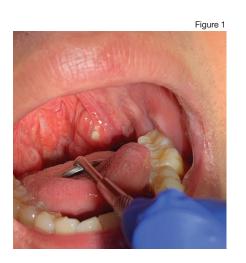
Genuine halitosis could be subdivided into physiological or pathological causes. Pathological causes could be either due to an extra-oral or intra-oral sources

Intra-oral source:6

- 1. Poor oral hygiene, deep carious lesions, retention of food debris, exposed necrotic pulp, and tongue biofilm
- 2. Periodontal disease—inflamed bleeding gingiva/ presence of calculi.
- 3. Infections—candidosis (fungal), necrotising gingivitis (bacterial), alveolitis, osteomyelitis.
- 4. Ingested substances—garlic, curry, tobacco, alcohol, methamphetamine
- 5. Hyposalivation including systemic syndromes and medications
- 6. Carcinoma and necrosis

Extra-oral source:7-9

- Respiratory system—atrophic rhinitis, postnasal drip, pharyngitis, sinusitis, tonsillitis and tonsilloliths (Figure 1), pneumonia, chronic bronchitis, lung abscess, cystic fibrosis, and bronchiectasis.
- Gastrointestinal system gastroesophageal reflux, peptic ulcers, carcinoma of the stomach, hiatus hernia, duodenal obstruction, and steatorrhoea.





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- 3. Other systemic diseases—liver and kidney failure, diabetes, fish odour syndrome, hypermethioninemia
- 4. Medications-duloxetine, imipramine, oxybutynin, etc.

Assessment:10

- 1. Good history with subjective and objective evaluation, and medical history
- 2. Examination—the presence of periodontal disease, caries, other diseases, staining, tongue coating, and organoleptic scale.
- 3. Halimeter and gas chromatography
- 4. Blood, microbial, and salivary flow testing (β-galactosidase, N-benzoyl-dL-arginine-2-napthylamide test)

Treatment:11,12

- 1. Explanation of halitosis and instructions for oral hygiene
- 2. Manage local and systemic causes
- 3. Improve oral health (by professional oral health care) and regular tongue cleaning
- 4. Oral Hygiene products such as toothpaste, hydrogen peroxide, chlorhexidine-Zinc mouthwash (Anti-microbial)
- 5. Regular review to maintain effective oral hygiene
- 6. Topical masking agents such as chewing gum (sugarless), and breath mints
- 7. Essential oils such as Menthol
- 8. Placebo (mouthwash/topical agents) for pseudo-halitosis, patient education, counselling
- 9. Patients with pseudo-halitosis or halitophobia may require referral for psychology investigation.

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