

Within this section links are provided to learning resources that students may find helpful in achieving the intended learning objectives. These are resources developed by e-lefENT and by OCB Media. Click on the word 'learn' in order to view the chosen resource.

Intended learning outcome
Doctor as Scientist and Scholar
A. THE EAR
<p>1. Be aware of the structure and function of the normal ear (learn) with particular reference to the following:</p> <ul style="list-style-type: none"> a. Tympanic membrane b. Middle ear c. Labyrinth <p>Have an awareness of how these structures change when affected by disease and understand how this leads to dysfunction and patient morbidity and mortality</p>
<p>2. Understand the incidence/prevalence, clinical presentations, the management and prognosis of the following external ear conditions that present in adults:</p> <ul style="list-style-type: none"> a. Otitis externa and skull base osteomyelitis (learn)*
<p>3. Understand the incidence/prevalence, clinical presentations, the management and prognosis of the following middle ear conditions that present in adults:</p> <ul style="list-style-type: none"> a. Acute otitis media* b. Otitis media with effusion* c. Tympanic membrane perforation (learn)* d. Chronic otitis media including cholesteatoma (learn 1)(learn 2)(learn 3)* e. Complications of otitis media (learn) f. Facial palsy (learn)* g. Presbycusis* h. Common causes of conductive hearing loss including ossicular disease including otosclerosis (learn 1)(learn 2)
<p>4. Understand the incidence/prevalence, clinical presentations, the management and prognosis of the following inner ear conditions that present in adults:</p> <ul style="list-style-type: none"> a. Vestibular neuronitis* b. BPPV* c. Meniere's Disease (learn) d. Vestibular schwannoma (learn 1) (learn 2)
<p>5. Understand the incidence/prevalence, clinical presentations, the management and prognosis of the following ear conditions that present in children:</p> <ul style="list-style-type: none"> a. Acute otitis media*

<ul style="list-style-type: none"> b. Otitis media with effusion (learn)* c. Tympanic membrane perforation (learn)* d. Chronic otitis media including cholesteatoma (learn 1)(learn 2)(learn 3)* e. Complications of otitis media (learn)*
<p>6. Have a basic knowledge of the following otological procedures:</p> <ul style="list-style-type: none"> a. Grommet insertion* b. Myringoplasty (learn)* c. Mastoidectomy (learn) d. Ossicular reconstruction
<p>7. Have a basic knowledge of the different types of hearing aid available including bone anchored hearing aids and cochlear implantation (learn 1)(learn 2)(learn 3)*</p>
<p>8. Be aware of the importance of screening in ENT conditions and in particular have an awareness of the neonatal hearing screening programme</p>
<p>9. Explain how common ear disorders affect an individual's ability to contribute to family life, work place and society. In this context the following conditions need special attention:</p> <ul style="list-style-type: none"> a. Loss of hearing b. Loss of balance c. Tinnitus
<p>10. Understand the principles of speech and language development and how loss of hearing can influence this*</p>

B. HEAD AND NECK

1. Be aware of the structure and function of the following ([learn 1](#))([learn 2](#)):

- a. Neck*
- b. Thyroid gland*
- c. Oral cavity*
- d. Pharynx and larynx
- e. Salivary glands

Have an awareness of how these structures change when affected by disease and understand how this leads to dysfunction and patient morbidity and mortality.

2. Understand the basic physiological principles of swallowing ([learn](#))

3. Understand the incidence/prevalence, clinical presentations, the management and prognosis of the following malignant head and neck conditions:

- a. Carcinoma of the larynx*([learn 1](#))([learn 2](#))
- b. Carcinoma of the pharynx including nasopharyngeal carcinoma*
- c. Carcinoma of the oral cavity*
- d. Carcinoma of the oesophagus*
- e. Cutaneous malignancy of the head and neck eg. SCC, BCC, melanoma

Be aware that lymphoma can affect the head and neck region

A basic understanding of the modalities of treatment available for the treatment of head and neck cancer is required.

4. Be aware of the natural history of head and neck cancer and the TNM staging system

5. Be aware of head and neck red flag symptoms*.

6. Be aware of the risk factors for head and neck cancer and what means are available for preventing head and neck cancer*.

7. Be aware of current fast-track referral guidance. Further information can be found at:

www.nice.org.uk/nicemedia/pdf/cg027niceguideline.pdf
www.scotland.gov.uk/Resource/Doc/46922/0014162.pdf

8. Understand the incidence/prevalence, clinical presentations, the management and prognosis of the following benign head and neck conditions in adults:

- a. Acute tonsillitis*
- b. Peritonsillar abscess and parapharyngeal abscess ([learn 1](#))([learn 2](#))*
- c. Epiglottitis*
- d. Laryngitis*
- e. Pharyngitis*
- f. Infectious mononucleosis*
- g. Obstructive sleep apnoea*

<ul style="list-style-type: none"> h. Acute laryngeal oedema* i. Branchial cyst j. Lesions of the oral cavity including leukoplakia k. Vocal cord paralysis l. Vocal cord nodules and polyps m. Pharyngeal pouch (learn) <p>Have a broad understanding of how to manage acute airway obstruction (learn 1)(learn 2)</p>
<p>9. Be aware of the importance of laryngopharyngeal reflux* in the aetiology of diseases of the pharynx and larynx</p>
<p>10. Understand the incidence/prevalence, clinical presentations, the management and prognosis of the following head and neck conditions that present in children:</p> <ul style="list-style-type: none"> a. Acute tonsillitis* b. Epiglottitis* c. Adenoid hypertrophy* d. Allergic chronic rhinosinusitis* e. Mumps* f. Croup g. Pertussis
<p>11. Understand the incidence/prevalence, clinical presentations, the management and prognosis of the following thyroid conditions in adults:</p> <ul style="list-style-type: none"> a. Graves disease* b. Multinodular goitre* c. Hypo and hyperthyroidism* d. Thyroid malignancy* e. Thyroiditis* f. Thyroglossal cyst
<p>12. Understand the incidence/prevalence, clinical presentations, the management and prognosis of the following salivary gland conditions in adults:</p> <ul style="list-style-type: none"> a. Benign and malignant salivary gland tumours* b. Sialadenitis c. Salivary gland stones and strictures d. Sjogren's syndrome e. Xerostomia
<p>13. Have a basic knowledge of the following head and neck procedures:</p> <ul style="list-style-type: none"> a. Tonsillectomy* b. Adenoidectomy* c. Tracheostomy

d. Thyroidectomy

14. Be aware of the current criteria for recommending tonsillectomy:

<http://www.sign.ac.uk/pdf/sign117.pdf>

C. NOSE

1. Be aware of the structure and function of the normal nose and sinuses (learn) with particular reference to the following:

- a. External nose
- b. Nasal cavity and paranasal sinuses

Have an awareness of how these structures change when affected by disease and understand how this leads to dysfunction and patient morbidity and mortality.

2. Understand the physiology of the sense of smell and how this influences the sense of taste

3. Understand the incidence/prevalence, clinical presentations, the management and prognosis of the following sinonasal conditions in adults:

- a. Acute rhinosinusitis (learn)*
- b. Chronic rhinosinusitis with and without nasal polyps including nasal allergy (learn)*
- c. Epistaxis (learn)*
- d. Atypical facial pain (learn)*
- e. Structural deformity of the nasal septum
- f. Structural deformity of the external nose (learn 1)(learn 2)

4. Understand the incidence/prevalence, clinical presentations, the management and prognosis of the following sinonasal conditions that present in children:

- a. Chronic rhinosinusitis including nasal allergy (learn 1)(learn 2)*
- b. Epistaxis*
- c. Cleft lip and palate (learn)

5. Have a basic knowledge of the following sinonasal procedures:

- a. Endoscopic sinus surgery
- b. Septoplasty

6. Recognise the role of incidental and systemic medical conditions on patient's ear nose and throat system and evaluate how these conditions may contribute to patient's mortality and morbidity. In this context the following medical conditions need special considerations:

- a. Atopic disease with particular reference to the nose
- b. Autoimmune conditions eg. Graves disease
- c. Systemic inflammatory conditions eg. Granulomatosis with polyangitis, Sarcoidosis
- d. Chronic infective conditions eg. Tuberculosis, Syphilis

<p>7. Have an awareness of the common syndromes that have ENT manifestations eg. Downs syndrome.</p>
<p>8. Demonstrate knowledge of drug actions, therapeutics, pharmacokinetics, drug side effects and the principles of safe drug prescription during pregnancy, lactation and childhood for medications relevant to the ear, nose and throat. Particular emphasis should be on the following medications:</p> <p>Steroid nasal sprays/drops (learn)* Antihistamines* Common oral antibiotics used in ENT eg. penicillin and macrolides* Topical ear drops*</p>
<p>9. Understand the role of infections and immunological disorders in the overall burden of ear, nose and throat disease, for example otitis media, allergies & atopic disorders and pharyngitis.</p>
<p>10. Explain the role of genetics (chromosomal defects, single gene defects, gene polymorphisms etc) and environmental factors (nutrition, infections, life style choices, psycho-social factors, socio-economic-including occupational) in the development of common diseases of the ear, nose and throat.</p>
<p>11. Evaluate the behavioural and psychological factors that contribute to illness in common ear, nose and throat disorders including tinnitus, dizziness, globus pharyngeus and atypical facial pain</p>
<p>12. Explain how the principles of primary, secondary and tertiary prevention influence the management of common ear, nose and throat conditions</p>