ENT - Topic 3 - Diagnostic and Therapeutic competencies in ENT

Magnified and Endoscopic Examination

- Magnification and endoscopy allow the clinician to see structures that are difficult to assess by routine examination.

A Safe Endoscopic Examination



Purpose and Supervision

- The examination should answer a defined question rather than be performed merely because equipment is available.
- Students should observe or assist within their competence and under appropriate supervision.

Consent and Patient Assessment

- Explain the purpose, expected sensations, important risks and available alternatives before obtaining consent.
- Confirm the patient's identity, relevant symptoms, allergy history and previous procedures.
- Check bleeding risk, anticoagulant use and any condition that may make positioning or airway examination unsafe.

Equipment Safety and Emergency Readiness

- Use the required personal protection and equipment-cleaning or disinfection procedure for the instrument and setting.
- A trained team should be able to recognise and respond to bleeding, faintness, severe pain or airway difficulty.
- Routine diagnostic endoscopy must not delay urgent airway stabilisation in a distressed patient.

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Recording and Explaining Findings

Describing the Examination

- Record the indication, side examined, structures visualised and any areas that could not be assessed.
- Describe the site, size, surface and extent of a lesion rather than recording only a presumed diagnosis.

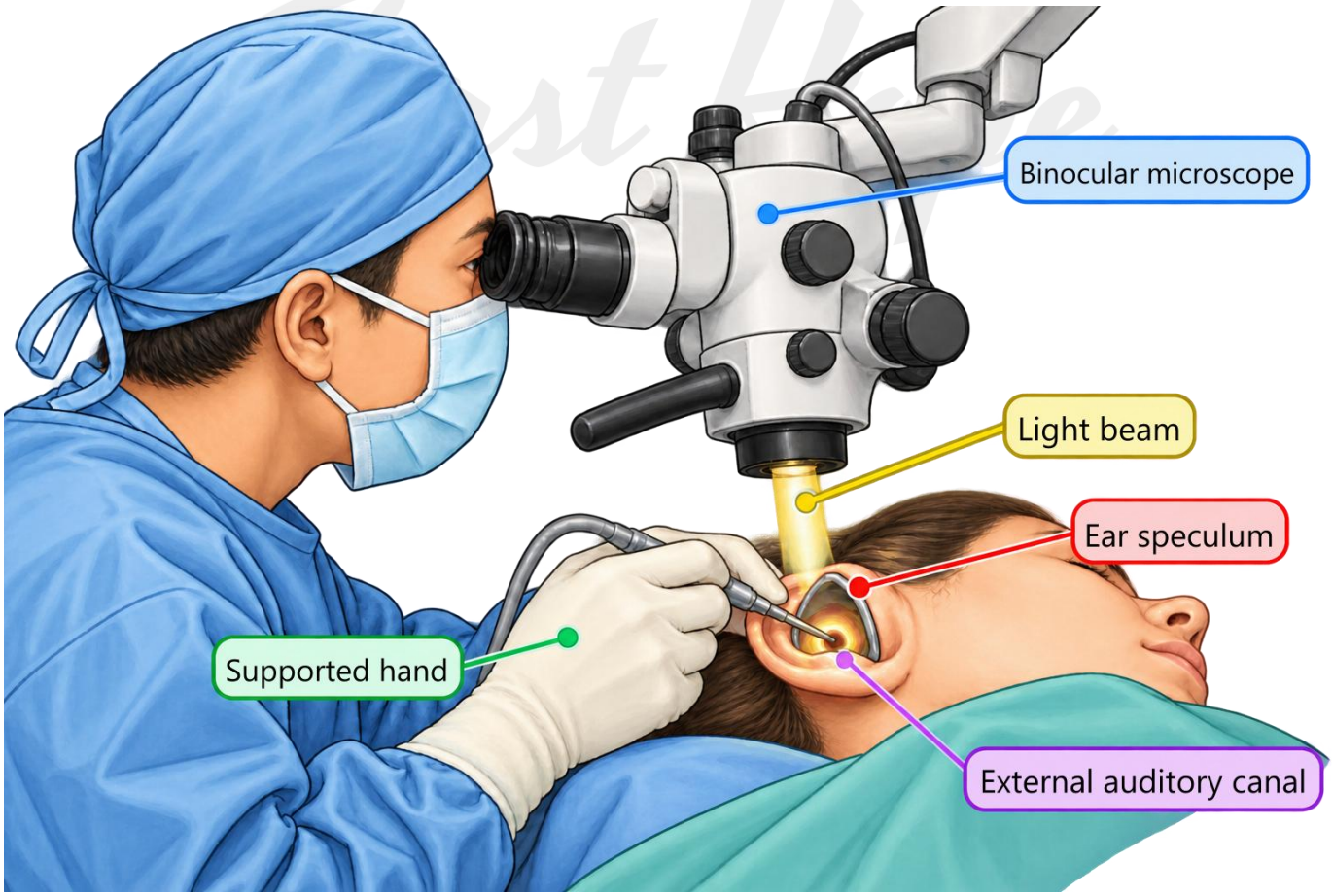
Image Privacy

- Save images or video only through an approved clinical system and with appropriate consent and privacy safeguards.

Interpretation and Further Investigation

- Explain whether the appearance is normal, suspicious or incomplete and state the next step.
- An abnormal appearance may require audiology, imaging, microbiology or tissue diagnosis before treatment is finalised.

Oto-Microscopic Examination



Binocular magnification allows detailed examination and controlled work within the ear canal

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Indications, Examination Technique and Limitations

What the Microscope Adds

- An operating microscope provides bright illumination, binocular magnification and a sense of depth.
- It leaves both hands available for controlled suction or instrumentation when this is indicated.
- It can reveal small perforations, retraction pockets, granulation tissue and postoperative changes more clearly than a limited otoscopic view.
- The microscope does not replace a hearing assessment or imaging when disease extends beyond the visible cavity.

Indications

- Common indications include persistent ear discharge, suspected cholesteatoma and an uncertain tympanic-membrane abnormality.
- It is useful for examining a mastoid cavity or a reconstructed membrane after surgery.
- It may support removal of obstructing debris, selected foreign bodies or wax by a trained clinician.
- It can help locate the source of bleeding and assess whether a perforation margin or retraction pocket is fully visible.

Steps of Oto-Microscopic Examination

1. Prepare the Patient and Equipment

- Explain that the examination may involve bright light, gentle ear movement and sometimes suction noise.
- Position the patient comfortably, often lying with the ear to be examined uppermost.
- Adjust the microscope, working distance and focus before introducing an instrument.
- Choose a clean, appropriately sized ear speculum and avoid pressure on an inflamed canal.

2. Inspect Before Instrumenting

- Inspect the pinna and canal entrance before looking deeper.
- Straighten the canal gently and obtain a clear view without pressing the speculum against the bony canal.
- Identify the canal wall, tympanic membrane, malleus handle, pars flaccida and visible perforation margins.
- Assess whether discharge or debris prevents a reliable view of important structures.

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3. Perform Necessary Aural Toilet Under Vision

- A trained clinician may remove obstructing discharge or debris using controlled suction or an appropriate instrument under continuous vision.
- Support the working hand so that unexpected patient movement is less likely to cause injury.
- Stop if pain, vertigo, bleeding or movement makes the procedure unsafe.
    - Blind curettage or deep suction can injure the canal, tympanic membrane or middle-ear structures.
- An acutely painful ear may need treatment and a planned repeat examination rather than forceful completion.

4. Describe the Findings and Plan

- Document the canal condition, membrane position, perforation site, retraction pocket, keratin, granulation and any visible ossicular abnormality.
- Record whether the deepest part of a retraction pocket could be seen.
- Relate the appearance to hearing, facial movement and symptoms suggesting complications.
- Explain the findings and arrange treatment, hearing tests or further investigation as appropriate.

Safety, Limitations and Documentation

Possible Adverse Effects

- Discomfort, minor canal trauma, bleeding and transient dizziness can occur.
- Suction noise can be unpleasant and should be minimised through careful technique.
- New severe pain, persistent vertigo or unexpected hearing deterioration requires reassessment.

Limitations and Choice of Method

- The microscope provides a straight-line view, so a narrow or tortuous canal may hide an anterior membrane margin.
- An otoendoscope can sometimes look around a corner, but it gives a different view and usually occupies one hand.
- Neither method allows the clinician to infer that hidden mastoid or intracranial disease is absent merely because the visible membrane looks satisfactory.
- The choice of examination depends on the suspected lesion and should include hearing assessment when hearing is affected.

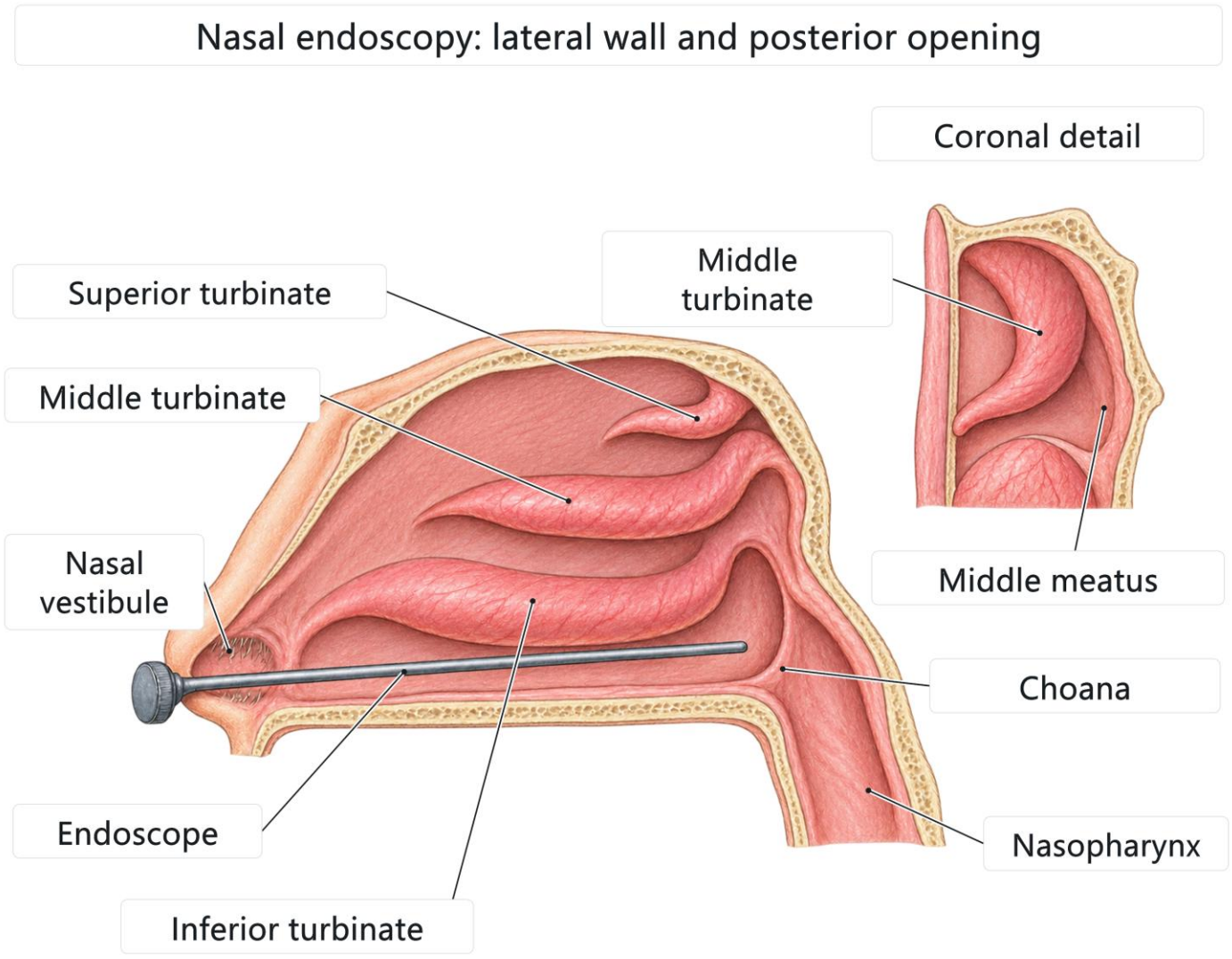
Completing an Examination Record

- Record whether a central perforation has a complete membrane rim and whether any attic or posterosuperior pocket contains keratin.

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- Describe granulation and an aural polyp without assuming that they are benign, because underlying disease may remain hidden.
- After aural toilet, record whether the view improved and whether the patient developed pain, bleeding or vertigo.
- Photographic comparison can document follow-up when obtained and stored with appropriate consent.

Diagnostic Nasal Endoscopy



A nasal endoscope reveals structures that may not be visible during anterior rhinoscopy

Indications and Systematic Nasal Assessment

Purpose and Indications

- **Diagnostic nasal endoscopy** uses a rigid or flexible endoscope to inspect the nasal cavity and nasopharynx.
- It is useful for persistent obstruction, recurrent bleeding, suspected polyps and chronic rhinosinusitis.

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