Basic Thyroid Examination

WIPE

- **W**ash hands
- **I**ntroduce yourself
- **P**ermission
- **P**osition (Patient sat in front of you upright)
- **E**xposure (Neck exposed)

**Identify Patient** (confirm the following details before starting)

- Name
- Age
- Date

**Inspection**

- Start with general inspection
  - Does the patient look in pain?
  - Is he/she comfortable?
  - Is he/she fully aware of what is happening?
  - Does the patient appear of ‘normal’ colour?
  - Overall build (BMI)
  - Are there any indicative findings in the patient’s surroundings?
  - Is he/she dressed appropriately given the current temperature (suggestive of heat or cold intolerance)?

- Inspect the Hands
- Nails (Clubbing/Acropachy)
- Tar staining?
- Temperature
- Sweaty palms?
- Palmar Erythema?
- Resting tremor (place a sheet of paper over outstretched hands to help identify this)

- Vitals
  - BP
  - Pulse
    - Comment on Rate & Rhythm from radial pulse
    - Comment on Volume and character from carotid pulse
  - Temperature
• Eyes
  o Assess eye movement using the H-plot (shown previously in Cranial Nerves Video). Identify any abnormalities including diplopia
  o Lid Lag
  o Lid Retraction
  o Exopthalmus (proptosis of endocrine origin)

• Neck
  o Identify any masses/lumps/asymmetry/scars/surface changes.
  o If any mass is identified ask the patient to protrude their tongue and assess whether this causes it to move
  o Assess whether the mass moves upon swallowing (thyroid swellings will move upwards with swallowing). To do this, ask the patient to take a drink of water, hold it in their mouth and then swallow on command.

**Palpation**
  o Palpate the thyroid from either along side or directly behind the patient. If you choose the latter of these, be sure to warn the patient before you do so to avoid startling them. Identify the isthmus and then lobes of the thyroid gland, define their boundaries (note if these are irregular).
  o If there is any other defined swelling in the neck define the boundaries also.
  o Ask the patient to swallow again whilst palpating the thyroid/any swellings.
When describing any ‘lumps/swellings found the following should be considered:

- Location
- Size
- Consistency
- Tenderness
- Mobility
- Margins
- Transillumination

Assess for lymphadenopathy (not performed in video)

**Percussion**

- Percuss for retrosternal goitre

**Auscultation**

- Auscultate over the thyroid for bruits.
- Abnormal swellings of the neck may also cause obstruction of breathing (stridor)
Final Points:

- Pre-tibial Myxoedema: Relatively rare but occurs in a small percentage of patients with Grave’s Disease.
- Reflexes: Ankle Jerk is the option usually taught at student level so for simplicity sake we can stick to this for now. Many students find it easiest to elicit this as shown in the video, however remember in the real world this method may not always be appropriate, especially in the elderly.

- Proximal Limb weakness (myopathy): May be associated with hyperthyroidism.

<table>
<thead>
<tr>
<th>Thyroid activity</th>
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</thead>
<tbody>
<tr>
<td>Normal Activity</td>
<td>Euthyroid</td>
</tr>
<tr>
<td>Excessive Activity</td>
<td>Hyperthyroid</td>
</tr>
<tr>
<td>Under Activity</td>
<td>Hypothyroid</td>
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</tbody>
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Example of how to report clinical findings

**General Findings**
- “This is Sarah James a 45 year old woman who presented with... On examination I found...”

**Important Positive Findings**
- List these off

**Important Negative Findings**
- However, there was no... (these should be those relevant to ruling out differentials)

**Clinical Conclusions**
- “These findings are consistent with...”
  - Then be prepared to explain how you would like to proceed (investigations and management etc)

### To conclude your examination you should consider/include:

- Bloods (Free T₃/T₄, TSH, cholesterol, prolactin levels, anti-thyroid antibodies etc)
- Examination of other systems (e.g. Cardiovascular/Carpal tunnel syndrome)
- Inclusion of other systems in history (e.g. reproductive or gastro-intestinal systems)
- Thyroid ultrasound scan
- Biopsy
- Fine Needle Aspiration