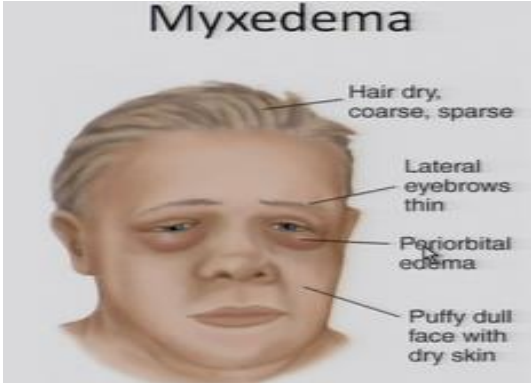


Thyroid Examination	
General inspection	
Look for signs of:	
<p>Hyperthyroidism:</p> <ul style="list-style-type: none"> • Weight loss. • Anxiety. • Frightened facies of thyrotoxicosis. • Sweaty. 	<p>Hypothyroidism:</p> <ul style="list-style-type: none"> • Overdressed. • Facial maxiedema. • Look for signs of mental and physical sluggishness. <div style="text-align: center;">  <p>Myxedema</p> <p>Hair dry, coarse, sparse</p> <p>Lateral eyebrows thin</p> <p>Periorbital edema</p> <p>Puffy dull face with dry skin</p> </div>
Neck Inspection	
1- Look at the front and sides of the neck .	<ul style="list-style-type: none"> - Look for localized or general masses and swelling. -Enlargement (pseudogoitre) can occur as a result of the presence of a fat pad in the anterior and lateral part of the neck. - Enlargement of the gland called goitre should be apparent on inspection .
2- Ask the patient to swallow and watch the neck movement.	<ul style="list-style-type: none"> - Only a goiter or thyroglossal cyst will rise during swallowing.
3- Ask the patient to put out the tongue .	<ul style="list-style-type: none"> - if the mass moves , it is most likely a thyroglossal cyst , but if did not it may be a thyroid swelling .
4- Describe the swelling .	
5- Skin status .	<ul style="list-style-type: none"> -Redness of the skin over the gland occurs in cases of suppurative thyroiditis .




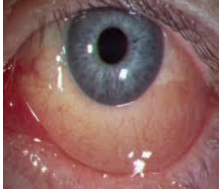
6- Old scar .	-Thyroidectomy .
7- Thyroid cartilage: Present or not , deviated or not.	- in healthy people the line between the cricoid cartilage and the suprasternal notch should be straight. - An outward bulge suggests the presence of a goitre.
8- Dilated veins over the upper part of the chest wall (often accompanied by filling of the external jugular vein).	- due to obstruction of thoracic inlet



Neck Palpation

From behind

1- Flex the neck slightly , put your thumbs behind the neck and the rest of your fingers in front.	-to feel the thyroid lobes.
2- Feel one side at a time, use one hand to steady the gland and the other to palpate.	<p style="text-align: center;">Consider the following:</p> <p>- Size: Feel particularly carefully for a lower border, because its absence suggests retrosternal extension.</p> <p>- Shape: note whether the gland is uniformly enlarged or irregular and whether the isthmus is affected.</p> <p>- Nodules: if it is palpable , determine its location, size, consistency, tenderness and mobility. Also if the whole gland feels nodular (multinodular goitre)</p> <p>- Consistency:</p> <ul style="list-style-type: none"> • Soft: is normal • Firm: in simple goitre • rubbery hard: in Hashimoto's thyroiditis. • stony hard node: in carcinoma. • calcification: in a cyst fibrosis or Riedel's thyroiditis. <p>- Tenderness: this may be a feature of thyroiditis or less often of a bleed into a cyst or carcinoma.</p> <p>- Mobility: carcinoma may tether the gland.</p>

	- Thrill : this may be palpable over the gland as in thyrotoxicosis.
3-Ask the patient to swallow during palpation .	- Normal thyroid gland is not palpable.
4- Palpate the cervical and supraclavicular lymph nodes.	These may be involved in carcinoma of the thyroid.
From the Front	
1-Palpate again.	- The same as from the behind.
2- Note the position of the trachea.	- displaced by a retrosternal gland.
Neck Percussion	
1- over sternum .	-Looking for mass extending.
2- The clavicle .	
3- Supraclavicular fossa .	
Neck Auscultation	
1- Listen over each lobe for a bruit (systolic bruit)	- This is a sign of increased blood supply, which may occur in hyperthyroidism, or from the use of anti-thyroid drugs. - a carotid bruit (louder over the carotid itself). - venous hum
2- listen for stridor in lateral lobes.	- in Goitre
Hand	
1-Inspect for palmar erythema and feel the palms for warmth and sweatiness.	-due to sympathetic overactivity.
2- Take the pulse: rate and rhythm .	- Note the presence of : <ul style="list-style-type: none"> • Sinus tachycardia (sympathetic overdrive) • Atrial fibrillation (due to a shortened refractory period of atrial cells related to sympathetic drive and hormone-induced changes). • pulse collapsing due to a high cardiac output in hyperthyroidism.

	<ul style="list-style-type: none"> • small volume and slow in hypothyroidism .
3-look for a fine or fast tremor.	-due to sympathetic overactivity in hyperthyroidism
4- Look at the nails for onycholysis (where there is separation of the nail from its bed)	
5- Inspect for thyroid Acropathy (soft-tissue swelling of the hands and clubbing of the fingers).	<p>-seen rarely in Graves' disease but not with other causes of thyrotoxicosis.</p> 
6- peripheral cyanosis	-due to reduced cardiac output in hypothyroidism .
7- swelling of the skin and may appear cool and dry and pale.	- Hypothyroidism
Arm	
1- Ask the patient to raise the arms above the head to test for proximal myopathy.	- In hyperthyroidism.
2- Tap the arm for abnormal briskness reflexes.	<p>-Hyporeflexia: with hypothyroidism</p> <p>-Hyperreflexia: with hyperthyroidism.</p>
Eyes	
1-Examine the patient's eyes for Exophthalmos .	<p>- in Grave's disease.</p> 
2- Examine for the complications of Exophthalmos	<p>(1) chemosis: oedema of the conjunctiva and injection of the sclera.</p> <p>(2) Conjunctivitis.</p> <p>(3) corneal ulceration: due to inability to close the eyelids.</p> <p>(4) optic atrophy: rare and possibly due to optic nerve stretching.</p> 

	(5) ophthalmoplegia : The inferior rectus muscle power tends to be lost first, and later convergence is weakened.
3- lid retraction (Dalrymple's sign)	-in hyperthyroidism.
4- lid lag (von Graefe's sign) by asking the patient to follow your finger as it descends at a moderate rate from the upper to the lower part of the visual field.	- Descent of the upper lid lags behind descent of the eyeball. -in hyperthyroidism
	
5- Inspect the eyes for periorbital oedema.	-Hypothyroidism.
Chest	
1- Gynaecomastia.	-in hyperthyroidism.
2- Examine the heart for systolic flow murmurs	- due to increased cardiac output.
Legs	
1- Look for pretibial myxedema.	- caused by mucopolysaccharide accumulation. -occurs only in Graves' disease and not in hypothyroidism
	
2- Test for proximal myopathy.	-Hyperthyroidism.

3-knee reflex	-Hyperreflexia: in Hyperthyroidism. - Contraction followed by delayed relaxation of the foot in hypothyroidism.
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DIAGNOSTIC TESTING:

- Thyroid function test.
- Blood sugar.
- Ultrasound.