

Graves' disease has eye abnormalities.

- It is more common in females.
  - Causes: Autoimmune disease.

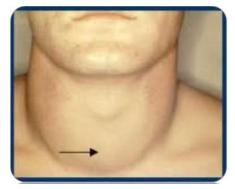
# - Signs and symptoms

- Weight loss
- Diarrhea
- Sweating
- Heat intolerance,
- Nervousness
- Palpitations,
- May be enlargement of the thyroid gland,
- Tremor
- Increased reflexes



## - Eye signs

- •Eyes are red and painful lacrimation
- •Lid lag.
- Proptosis.
- •Optic neuropathy.
- •Restrictive myopathy.
- •Decreased frequency of blinking.
- •Lid retraction exposing the upper sclera.
- Diplopia Proptosis in thyroid eye disease.



#### Proptosis in thyroid eye disease.





(A)- *Mild left lid retraction;* (B)-Restrictive thyroid myopathy (C) -*severe bilateral lid retraction* (D)- right lid lag on downgaze



- Investigations

•T3 (triiodothyronine) & thyroxine (T4) levels. Have an elevated T4

level.

- Thyroid stimulating hormone (TSH)-Low
- •Thyroid uptake of radio iodine.
- Presence of antibodies: TSH receptor antibody
- •CT orbits
- Thyroid scans.

### - Treatment

- Propranolol
- Anti-thyroid drugs Carbimazole
- Radio iodine (Graves' disease)
- Surgery

# - Graves Ophthalmopathy

•Steroids are the best, radiation in those not responding to steroids, severe cases may need surgery.