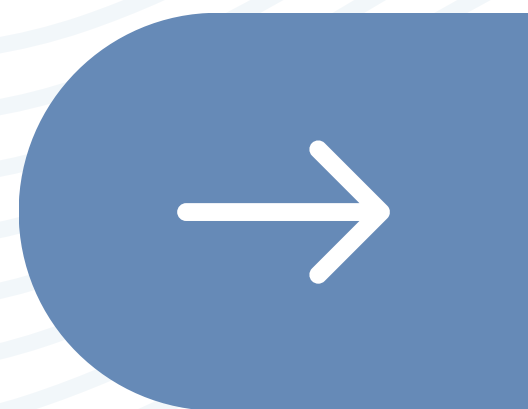


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**BLOOD SUPPLY OF  
THYROID GLAND**



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# #DIBSBYNEXTILLO

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## BLOOD SUPPLY OF THYROID GLAND

*The thyroid is an **endocrine gland**.*

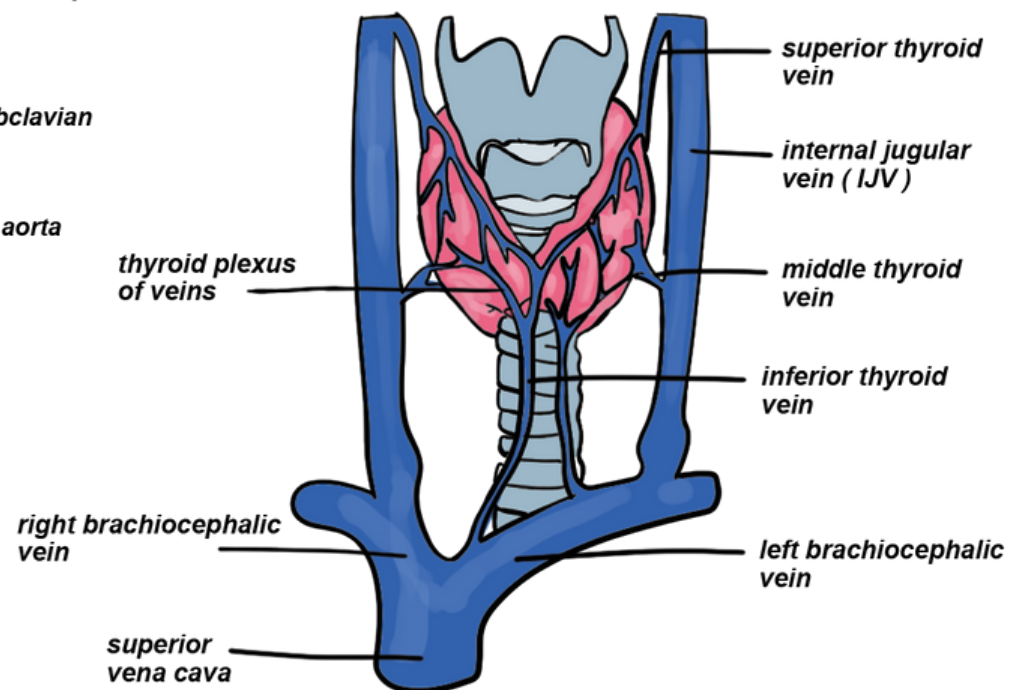
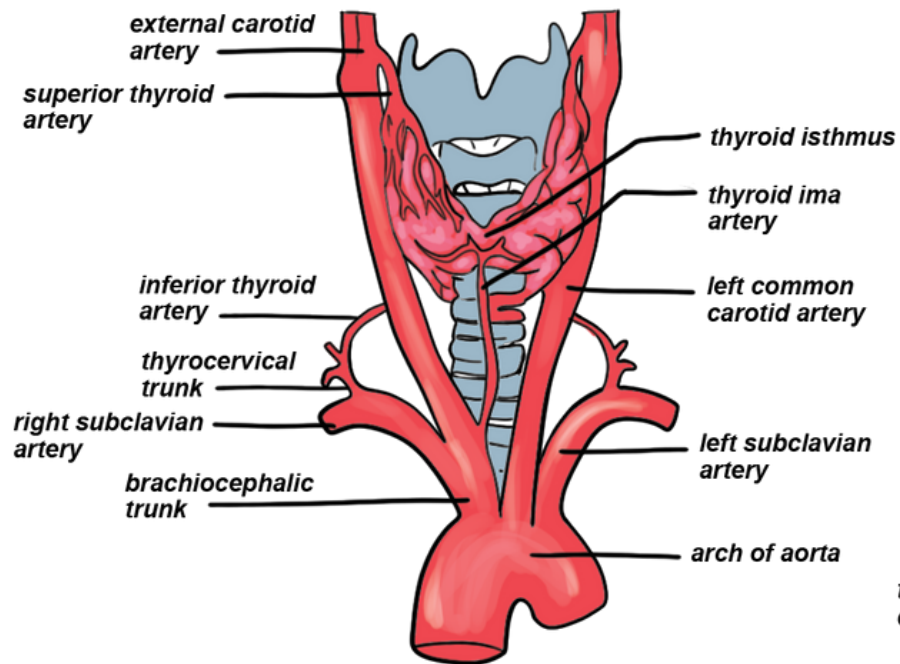
*Its location is in the inferior, anterior neck, and it is responsible for the formation and secretion of the thyroid hormones as well as iodine homeostasis within the human body.*



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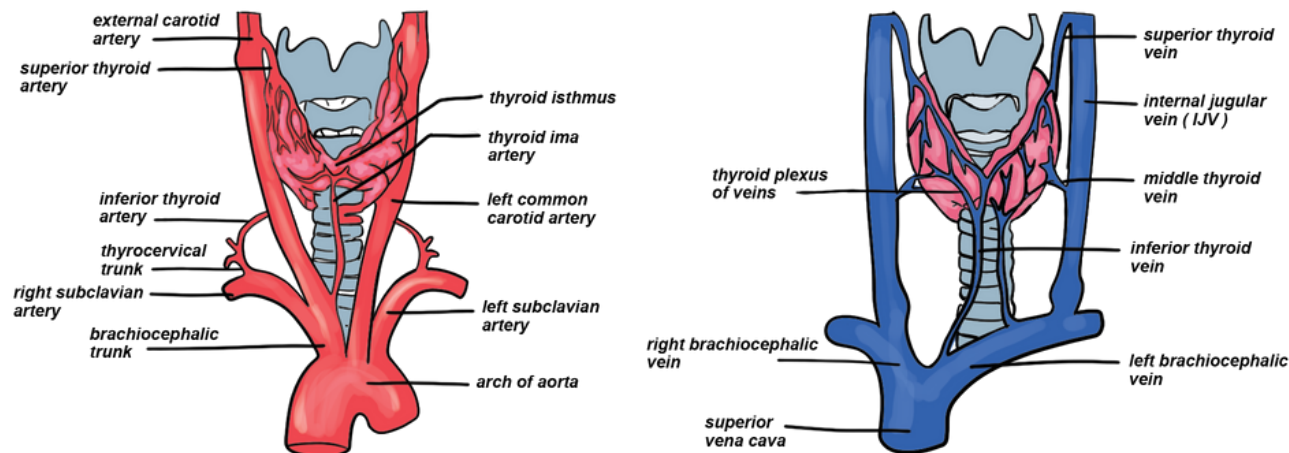


# BLOOD SUPPLY OF THE THYROID GLAND





# IMAGE DESCRIPTION



- Arterial sources include the superior thyroid artery, originating from the external carotid artery, and the inferior thyroid artery, arising from the thyrocervical trunk (a subclavian artery branch).
- A potential third artery, the thyroid ima artery, may emerge from the brachiocephalic trunk.
- Venous drainage is illustrated through the superior, middle, and inferior thyroid veins, forming a venous plexus around the thyroid gland.
- Anterior neck location, spanning C5-T1 vertebrae, with butterfly-shaped lobes and central isthmus.
- Embryonic descent forms thyroglossal duct; persistent duct can lead to cysts or fistulae.
- Closely associated with infrahyoid muscles, carotid sheath, larynx, trachea, and oesophagus.
- Supplied by superior thyroid artery (external carotid) and inferior thyroid artery (thyrocervical trunk).
- Venous drainage via superior, middle, and inferior thyroid veins; innervated by sympathetic trunk branches.





# VENOUS DRAINAGE OF THE THYROID GLAND

***Drains into tributaries of the internal jugular vein.***

***4th Vein of Kocher:*** If present, contributes to venous drainage.

***Inferior Thyroid Vein:*** Empties into the brachiocephalic vein.

***Internal Jugular Tributary:*** Superior and middle thyroid veins drain into this vessel.

***Brachiocephalic Tributary:*** Inferior thyroid vein directly drains into the brachiocephalic vein.





# ARTERIAL SUPPLY OF THE THYROID GLAND

**Superior Thyroid Artery:** *Originates from the external carotid artery.*

**Inferior Thyroid Artery:** *Arises from the thyrocervical trunk, a part of the subclavian artery.*

**Arteria Thyroid Ima:** *Originates from the brachiocephalic trunk or the arch of the aorta. it is more frequently reported in the context of enlarged parathyroid glands (parathyroid adenomas).*

**External Carotid Origin:** *Superior thyroid artery arises from the external carotid artery.*

**Subclavian Origin:** *Inferior thyroid artery branches from the thyrocervical trunk, part of the subclavian artery.*





# OVERVIEW OF THYROID VASCULAR SUPPLY AND DRAINAGE

**Dual Venous Drainage:** Superior thyroid veins drain into the internal jugular vein, while the inferior thyroid vein directly enters the brachiocephalic vein.

**Diverse Arterial Sources:** Superior thyroid artery from the external carotid artery, inferior thyroid artery from the thyrocervical trunk, and arteria thyroid ima from the brachiocephalic trunk or aortic arch.

**Crucial for Thyroid Function:** Ensures optimal blood supply and drainage for thyroid hormone production.

**Clinical Considerations:** Essential for thyroid surgeries and pathology assessment.

**Anatomical Variability:** The presence of the 4th Vein of Kocher and variations in arterial origins highlight individual differences.



# BLOOD SUPPLY OF THYROID GLAND

**Question:**

***Which artery originates from the external carotid artery and supplies the thyroid gland?***

- A) Inferior Thyroid Artery
- B) Thyroid Ima Artery
- C) Superior Thyroid Artery
- D) Vertebral Artery

**Answer: C) Superior Thyroid Artery**

