

LEVELS OF VARIOUS STRUCTURES IN THE BODY AND PLANES

I. LEVELS

<u>STRUCTURE</u>	<u>LEVEL</u>
Oropharynx and Soft Palate with Mouth Open	C2 vertebra
Hyoid Bone	C3 vertebra
Thyroid Cartilage	C4 & C5 vertebrae
Bifurcation Common Carotid Artery	C3 & C4 vertebral junction (disc)
Cricoid Cartilage	C6 vertebra
Thyroid Lobe (Superior Extent)	Oblique line of thyroid cartilage
Isthmus Thyroid Gland	Overlies the second through fourth tracheal rings
Thyroid Lobe (Inferior Extent)	Sixth tracheal ring
Superior Angle of Scapula	Overlies part of second rib - First intercostal space superior to angle
Spine at Root of Scapula (Medially)	Opposite third thoracic spine
Inferior Angle of Scapula'	Overlies part of seventh rib - Seventh intercostal space inferior to angle
Jugular (Suprasternal) Notch	T2 & T3 vertebral junction
Sternal Angle (Angle of Louis[Manubriosternal Joint])	T4 & T5 vertebral junction
Tracheal Bifurcation	T4 & T5 vertebral junction
Concavity and Ends of Aortic Arch	T4 & T5 vertebral junction
Azygos Vein Enters Superior Vena Cava	T4 & T5 vertebral junction
Origin Great Vessels (eg. Brachiocephalic Trunk, etc.)	Approximately center of manubrium or first intercostal space which would put it at the level of the T3 & T4 vertebral junction
Manubrium	T5 to T8 vertebrae
Xiphisternal Joint (Refer to Plane)	T9 vertebra (typically)

Superior Mediastinum	From superior thoracic inlet to the horizontal plane passing from the sternal angle to the inferior border of T4 vertebra
Pulmonary valve	L second intercostal space, medial
Aortic valve	R second intercostal space
Tricuspid valve	R lower sternum
Nipple in Male	Fourth intercostal space in midclavicular line
Apex of Heart (mitral valve)	Fifth intercostal space
Base of Heart (Supine Position)	T5 to T8 vertebrae
(Erect Position)	T6 to T9 vertebrae
greater splanchnic n.	T5-T9 sym ganglia
Oblique fissure of lung	T6
Vena Caval Foramen	T8 vertebra
Esophageal Hiatus	T10 vertebra
Lesser splanchnic n.	T10-T11 sym ganglia
Least splanchnic n.	T12 sym ganglia
Aortic Hiatus	T12 vertebra
Median Arcuate Ligament of Respiratory Diaphragm	T12 & L1 vertebral junction
Celiac Trunk	L1 vertebra (superior border)
Superior Mesenteric Artery	L1 vertebra (inferior third)
Inferior Mesenteric Artery	L3 vertebra (subcostal plane)
Horizontal (Third) Part of Duodenum	L3 vertebra (subcostal plane)
Right Kidney - Superior Pole	T12 vertebra (superior border)
Inferior Pole	L3 vertebra
Hilum	L1 vertebra (transpyloric plane)
Left Kidney - Superior Pole	T12 vertebra (superior border)
Inferior Pole	L3 vertebra
Hilum	L1 vertebra (transpyloric plane)

Pancreas - Head	L2 & L3 vertebrae
Duodenum	
- First Part	L I vertebra
- Second Part	L1, L2 & L3 vertebrae (right side)
- Third Part	L3 vertebra
Umbilicus (Supine/Recumbent Position)	Disc between L3 & L4 vertebrae
Bifurcation Abdominal Aorta	L4 vertebra
Origin of Inferior Vena Cava	L5 (transtubercular plane)
Anterior Superior Iliac Spine	S I vertebra
Posterior Superior Iliac Spine	S2 vertebra

II. BODY PLANES

- **Transverse Thoracic Plane** - a horizontal line that anteriorly passes through the sternal angle and posteriorly through the T4 & T5 vertebral junction.
- **Xiphisternal Plane** - marks the anterior, inferior limit of thoracic cavity, the superior surface of the liver, the respiratory diaphragm and the inferior border of the heart. It is typically at the level of the T9 vertebra.
- **Transpyloric Plane - Supine Position** L1 vertebra (inferior border)
- **Hila Both Kidneys** L I vertebra (transpyloric plane)
- **Superior Mesenteric Artery** L 1 vertebra (transpyloric plane)
- **Neck, Body and Head of Pancreas** L I vertebra (transpyloric plane)
- **Transpyloric Plane (Erect Position)** L2 to L4 vertebral levels depending on person
- **Subcostal Plane** L3 vertebra (superior border or transects it)
- **Transumbilical Plane** Disc between L3 & L4 vertebrae
- **Supracristal Plane (Highest Point on Iliac Crest)** L4 vertebra
- **Transtubercular Plane** L5 vertebra