

Muscles Of Anterior Abdominal Wall.

- **INSERTION** : The 3 muscles develop 3 broad aponeuroses towards the median plane to form the rectus sheath, then become inserted mainly in the linea alba
- **NERVE SUPPLY**: Lower 5 intercostal n., subcostal n., iliohypogastric n. & ilioinguinal n.
- **ACTION** : Respiration, protect viscera, keep viscera in position ,increase intra-abdominal pressure ,flex trunk(rectus) &lateral flex and twist trunk (other muscles) .

MUSCLE	ORIGIN	INSERTION	IMPORTANT FEATURES
1. External Abdominal Oblique	<ul style="list-style-type: none"> • Outer Surface of Lower 8 ribs 	<ul style="list-style-type: none"> • Xiphoid process, linea alba, • A.S.I.S, outer lip of iliac crest. • Pubic tubercle 	<ol style="list-style-type: none"> 1) Its fibers runs downwards, forewards & medially. 2) The Lower part of aponeurosis of ext. oblique form the main part of inguinal lig. 3) The ext. inguinal ring is an opening in the aponeurosis of ext. oblique m. 4) The aponeurosis is prolonged at the ext. ring to form the ext. spermatic fascia. 5) Below a line between A.S.I.S. & umbilicus, the muscle becomes aponeurotic.
2. Internal abdominal oblique	<ul style="list-style-type: none"> • Lat. 2/3 of upper concave surface of inguinal lig. • Intermediate part of iliac crest. • Lumbar fascia 	<ul style="list-style-type: none"> • Lower 6 costal cartilages. • Xiphoid process & linea alba. • Lower fibers (conjoint tendon) is inserted into pubic crest & pectineal line. 	<ul style="list-style-type: none"> • The fibers runs upwards, forewards & medially. • Cremastic m. is derived from int. oblique. It form U shaped loop around the spermatic cord & testis inserted into pubic tubercle. It elevate the testis during coughing, straining & ejaculation. • The lower fibers of int. oblique has a triple relation to the spermatic cord: <ol style="list-style-type: none"> 1) first ant. to the cord forming the lat. 1/2 of ant. wall of inguinal canal. 2) Arch above the cord forming the roof of inguinal canal. 3) Finally, the conjoint tendon lies behind the cord forming the med. 1/2 of post. wall of inguinal canal.
3- Transversus abdominis	<ul style="list-style-type: none"> • Lat 1/3 of the upper surface of inguinal lig. • Inner lip of iliac crest. • Thoracolumbar fascia. • Inner surface of lower 6 costal cartilages 	<ul style="list-style-type: none"> • Xiphoid process & linea alba. • Lower fibers (conjoint tendon) is inserted into the pubic crest & pectineal line. 	<ol style="list-style-type: none"> 1- The fibres runs transversely. 2- It is lined by transversalis fascia. 3- <u>Conjoint tendon</u>: •It is the fused lower parts of aponeurosis of int. oblique & transversus abdominis near their insertion. • It passes in the med. 1/2 post wall of inguinal canal . • The fibres of trasversus abdominis arches at a higher level than int. oblique (no role in formation of ingunal canal. • The conjoint tendon is supplied by ilioinguinal nerve.
4- Rectus abdominis	<ul style="list-style-type: none"> • Pubic crest & front of symphysis pubis 	<ul style="list-style-type: none"> • along a horizontal line into xiphoid process & outer surface of 5,6,7 costal cartilage. 	<ol style="list-style-type: none"> 1- The lat. border of rectus abdominis is called linea semilunaris. 2- It has 3-4 tendinous intersection (at xiphoid process, umbilicus, midway bet. the above 2 & one below the umbilicus).
5- Pyramidalis	<ul style="list-style-type: none"> • Pubic crest & front of symphysis pubis. 	<ul style="list-style-type: none"> • Lower inch of linea alba 	It is anatomical landmark to midline in supra-pubic incision.

