**Gross Anatomy**

of the

**ANTEROLATERAL ABDOMINAL WALL**

M1 Gross and Developmental Anatomy
8:00 AM, November 11, 2008
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**Bony Landmarks of the Abdomen**

- Rib 7
- Rib 10
- Xiphoid process
- Costal margin
- Arcuate line
- Rib 10
- Anterior superior iliac spine (ASIS)
- Iliac crest
- Sacral promontory
- Pubic tubercle
- Pubic symphysis
- Pectineal line

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**Soft Tissue Landmarks**

- Linea semilunaris (lateral rectus plane)
- Umbilicus (at vertebral level L4 in non-obese persons)
- Inguinal ligament (attached at ASIS and pubic tubercle)

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**Quadrants**

Subdivide the anterolateral abdominal wall and allow more precise localization of clinical findings.

- Upper right quadrant
- Upper left quadrant
- Lower right quadrant
- Lower left quadrant

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**Examples of soft tissues**

- Skin
- Superficial fascia
- Muscle
- Aponeurosis

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**Soft tissues fill the bony gap and form the Anterolateral Abdominal Wall**

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**Midline**

- Transumbilical line crosses umbilicus (if not obese) and vertebral body L4
Nine Regions
may be used to subdivide the anterolateral abdominal wall, to make the localization of clinical findings even more precise.

Langer’s lines - Cleavage lines of the skin

The superficial fascia of the anterolateral abdominal wall has Two Layers - Camper’s and Scarpa’s.

Nerves and Dermatomes
T10 crosses the umbilicus

Inferior epigastric artery
Superior epigastric artery

Camper’s layer
(the fat-containing superficial layer of the superficial fascia)

Scarpa’s layer
(the membranous layer of the superficial fascia - lies on the deep surface of the fatty layer)
**Cutaneous Lymphatic Drainage**

The watershed crosses the umbilicus

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**External and Internal Abdominal Oblique Muscles**

- External oblique muscle
- Aponeurosis (ply 1)
- Internal oblique muscle
- Aponeurosis (ply 2)
- Inguinal ligament

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**Transversus Abdominis Muscle**

lies deep to the internal oblique

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**Rectus Abdominis Muscle**

is enclosed in the Rectus Sheath

- Rectus abdominis muscle
- Anterior layer of rectus sheath
- Tendinous intersection
- Posterior layers of rectus sheaths
- Arcuate line
- Transversalis fascia
- Peritoneum

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**Rectus Sheath Formation**

superior (A) and inferior (B) to the arcuate line

- Skin
- Superficial fascia
- Posterior layer
- Anterior layer of rectus sheath
- Extra-peritoneal fat
- Peritoneum

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1. Aponeurosis of external oblique muscle
2. Aponeurosis of internal oblique muscle
3. Aponeurosis of transversus abdominis muscle
Inguinal ligament
Spermatic cord