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
Arcuate line
Anterior superior iliac spine (ASIS)
Pubic tubercle
Pubic symphysis
Xiphoid process
Costal margin
Rib 10
Iliac crest
Sacral promontory
Pectineal line
Soft tissues fill the bony gap and form the **Anterolateral Abdominal Wall**

**Examples of soft tissues**
- Skin
- Superficial fascia
- Muscle
- Aponeurosis

**Soft Tissue Landmarks on the Anterolateral Abdominal Wall**
- **Linea semilunaris** (lateral rectus plane)
- **Linea alba** (midline interdigitation of aponeuroses)
- **Umbilicus** (at vertebral level L4 in non-obese persons)
- **Inguinal ligament** (attached at ASIS and pubic tubercle)
Quadrants
subdivide the anterolateral abdominal wall and allow more precise localization of clinical findings.
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.**

- **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)

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**Nerves and Dermatomes**

- T10 crosses the umbilicus
Cutaneous Lymphatic Drainage

The watershed crosses the umbilicus
**External and Internal Abdominal Oblique Muscles**

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

**Transversus Abdominis Muscle**
lies deep to the internal oblique

- **Internal oblique** muscle (ply 2)
- **Transversus abdominis** muscle (ply 3)
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

Rectus Sheath Formation
superior (A) and inferior (B) to the arcuate line

Posterior layer of rectus sheath
Arcuate line
Transversalis fascia

1. Aponeurosis of external oblique muscle
2. Aponeurosis of internal oblique muscle
3. Aponeurosis of transversus abdominis muscle

Superficial fascia
Linea alba
Anterior layer of rectus sheath
Extraperitoneal fat
Peritoneum