

## Unit 31: Topographic anatomy: **Anterolateral abdominal wall and inguinal region**

### Guide for the practical class using Anatomedia online

#### Topography of the abdominal wall

1. Go to An@tomedica, **abdomen** module-regions-frames: **01 and 02** (Surface margins of abdomen, Bony boundaries of abdomen)
  - Click on underlined text: (see figure) to see the shape of abdomen; reasons for lumbar lordosis and pelvic tilt; bones protecting the abdomen
  - Activate 'can you identify' to visualize surface margins and bony boundaries of the abdomen
2. Go to An@tomedica, **abdomen** module-regions-frames: **04 and 05** (Position of abdomen in trunk, Relations of abdomen)
  - Click on underlined text to see vertebral levels of transverse sections on frame 5
  - Activate 'can you identify' to visualize position of the abdomen in trunk and its relations to neighboring body modules
3. Go to An@tomedica, **abdomen** module-regions-frames: **07 and 09** (Position of regions in abdomen, Sites of inguinal & femoral rings)
  - Click on underlined text to review the boundaries of inguinal and femoral rings
  - Activate 'can you identify' to visualize position of abdominal wall and boundaries of inguinal/femoral rings in the abdominal wall
4. Go to An@tomedica, **abdomen** module-regions-frames: **10 and 11** (Anterior abdominal wall: layers and superficial contents, Muscle layers and rectus sheet)
  - Click on colored buttons to visualize cutaneous **nerves**, **arteries**, **veins** and **lymph vessels** in subcutaneous layer of the abdomen
  - Click on underlined text to review layers of anterior abdominal wall (particularly muscle layers) and neurovascular territories of the abdominal skin
  - Activate 'can you identify' to visualize these supply structures
5. Go to An@tomedica, **abdomen** module-regions-frames: **13, 14 and 15** (Inguinal canal, Scrotum, Spermatic cord)
  - Click on underlined text to review boundaries/walls/contents/orientation of inguinal canal, layers/contents/supply of scrotum, coverings/contents/course of spermatic cord

-Activate 'can you identify' to visualize openings of inguinal canal and neurovascular supply of scrotum and its contents, including spermatic cord

6. Go to An@tomedica, **abdomen** module-regions-frame: **20** (Hernial sites)

-Click on underlined text to review potential pathways of abdominal hernia, areas of weakness in the abdominal wall, contributing factors, differences between direct and indirect inguinal hernia

-Activate 'can you identify' to visualize potential hernial sites

## **Muscles and vascular structures of the abdominal wall**

7. Go to An@tomedica, **abdomen** module-systems-frames: **01 and 02** (External & internal oblique muscles)

-Click on underlined text to review position/course/attachment/supply of oblique abdominal muscles and their action

-Activate 'can you identify' to visualize oblique abdominal muscles

8. Go to An@tomedica, **abdomen** module-systems-frames: **03 and 04** (Transversus abdominis, Rectus abdominis)

-Click on underlined text to review position/course/attachment/supply of transversus and rectus abdominis muscles

-Activate 'can you identify' to visualize these two muscles and their attachments

9. Go to An@tomedica, **abdomen** module-systems-frame: **05** (Fascia of anterior abdominal wall)

-Click on underlined text to review specifics of abdominal fascia, rectus sheet, linea alba, semilunar and arcuate lines

-Activate 'can you identify' to visualize walls of rectus sheet and different lines in the wall

10. Go to An@tomedica, **abdomen** module-systems-frame: **28** (Abdominal aorta and branches)

-Click on underlined text to review branches of aorta (unpaired/paired visceral and parietal) and of external iliac artery

-Activate 'can you identify' to branches of abdominal aorta, particularly parietal branches

11. Go to An@tomedica, **abdomen** module-systems-frame: **30** (Inferior vena caval system)
  - Click on underlined text to review tributaries to IVC and principles of the venous return against gravity
  - Activate 'can you identify' to visualize principle tributaries to IVC, particularly parietal

## **Dissection**

12. Go to An@tomedica, **abdomen** module-dissection-frames: **04 to 09** (Anterior abdominal wall: LAYER-BY-LAYER DISSECTION)
  - Turn on the colored buttons to highlight different dissected structures, from surface to deep
  - Activate 'can you identify' to see dissected structures
13. Go to An@tomedica, **abdomen** module-dissection-frames: **10 to 15** (Inguinal canal & scrotum: LAYER-BY-LAYER DISSECTION)
  - Turn on the colored buttons to highlight different dissected structures, from surface to deep
  - Activate 'can you identify' to see dissected structures

## **Anatomical basis of some clinical procedures**

14. Go to An@tomedica, **abdomen** module-dissection-frame: **53** (Common abdominal incisions)
  - Click on underlined text to review anatomical basis of abdominal wall incisions to access the peritoneal cavity and structures endangered by incisions
  - Activate 'can you identify' to visualize sites of common incisions
15. Go to An@tomedica, **abdomen** module-dissection-frame: **55 and 56** (Vasectomy & hydrocele tap)
  - Click on underlined text to review layers traversed during vasectomy
  - Activate 'can you identify' to visualize structures in the inguinal region including parts of the spermatic cord