

Unit 27: Topographic anatomy: **Thoracic wall and back**

Guide for the practical class using Anatomedia online

Topography of the thoracic wall

1. Go to An@tomedica, **thorax** module-regions-frames: **01 and 02** (Surface margins of thorax, Bony boundaries of thorax)
 - Click on underlined text: (see figure) to see the position of thorax between four other modules of the body on frame 1
 - Activate 'can you identify' to visualize surface margins and bony boundaries of the thorax
2. Go to An@tomedica, **thorax** module-regions-frame: **09** (Subcutaneous layer of thorax)
 - Click on colored buttons to visualize cutaneous **nerves**, **arteries**, **veins** and **lymph vessels** in subcutaneous layer of the thorax
 - Click on underlined text to review vascular territories overlapping the nipple and specifics of thoracic wall lymph drainage
 - Activate 'can you identify' to visualize these supply structures
3. Go to An@tomedica, **thorax** module-regions-frames: **10 and 11** (Muscles in front of thorax, Structures behind thorax)
 - Click on underlined text to review muscles covering the front and the back of thorax, and to see the position of triangle of auscultation
 - Activate 'can you identify' to visualize above muscles and the auscultation triangle
4. Go to An@tomedica, **thorax** module-regions-frames: **12 and 13** (Anterior & posterior thoracic wall)
 - Click on underlined text to review position and importance of internal thoracic artery and to see organization of an intercostal space with intercostal veins, arteries and nerves (and their branches)
 - Activate 'can you identify' to visualize layers of thoracic wall and its neurovascular supply
5. Go to An@tomedica, **thorax** module-regions-frames: **12 and 13** (Superior & inferior thoracic aperture)
 - Click on underlined text to review structures traversing thoracic inlet, the diaphragm and its openings as well as structures transmitting them

-Activate 'can you identify' to visualize viscera, nerves and vessels traversing thoracic inlet and outlet

Muscles and neurovascular structures of the thoracic wall

6. Go to An@tomedica, **thorax** module-systems-frames: **07 and 08** (External & internal intercostals, Innermost thoracic muscles)

-Click on underlined text to review position/course/attachment of intercostal muscles, its action in respiration, the accessory respiratory muscles and their clinical significance

-Activate 'can you identify' to visualize muscles in three distinct layers

7. Go to An@tomedica, **thorax** module-systems-frame: **09** (The diaphragm)

-Click on underlined text to review position/shape/attachment of the diaphragm, its action in respiration, specifics of its supply and clinical significance of that

-Activate 'can you identify' parts and attachment of the diaphragm

8. Go to An@tomedica, **thorax** module-systems-frame: **33** (Aorta & branches in thorax)

-Click on underlined text to review parts aorta (ascending, arch, descending), its parietal branches, particularly internal thoracic artery

-Activate 'can you identify' to visualize components of parts of aorta and its principle branches (parietal and visceral)

9. Go to An@tomedica, **thorax** module-systems-frames: **34 and 35** (Caval & azygous systems in thorax, Lymph vessels & nodes of thorax)

-Click on underlined text to review tributaries to SVC, brachicephalic veins, azygous vein (and its tributaries) and principles of the lymph flow in the thoracic wall

-Activate 'can you identify' to visualize principle veins, lymph ducts and nodes in the thoracic wall

10. Go to An@tomedica, **thorax** module-systems-frame: **23** (Somatic nerves of thorax)

-Click on underlined text to review specifics of somatic innervation of thoracic wall and the diaphragm

-Activate 'can you identify' to visualize components somatic innervation of thorax

Dissection

11. Go to An@tomedica, **thorax** module-dissection-frames: **04 to 06** (Anterior thoracic 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

12. Go to An@tomedica, **thorax** module-dissection-frames: **07 to 09** (Anterior thoracic 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

Anatomical basis of some clinical procedures

13. Go to An@tomedica, **thorax** module-dissection-frame: **46** (Pleural tap: layers & hazards)

- Click on underlined text to review anatomical basis of the pleural tap procedure
- Activate 'can you identify' to visualize structures that are traversed and those that might be endangered by this procedure

14. Go to An@tomedica, **thorax** module-dissection-frame: **47** (Intercostal block: layers & hazards)

- Click on underlined text to review anatomical basis of the intercostal block
- Activate 'can you identify' to visualize structures that are traversed and those that might be endangered by this procedure

Topography of the back

15. Go to An@tomedica, **back** module-regions-frames: **01 and 02** (Surface markings of back, Bony boundaries of back)

- Click on underlined text: (see figure) to see the position of back between other modules of the body on frame 1
- Activate 'can you identify' to visualize surface margins and bony boundaries of the back

16. Go to An@tomedica, **back** module-regions-frames: **04 and 05** (Position of back in trunk, Relations of back)

- Click on underlined text to see vertebral levels of transverse sections
- Activate 'can you identify' to visualize position of the thorax in trunk and its relations to neighboring body modules

17. Go to An@tomedica, **back** module-regions-frames: **10 and 11** (Superficial compartment: roof & floor, contents)

- Click on colored buttons to visualize cutaneous **nerves**, **arteries**, **veins** and **lymph vessels** in subcutaneous layer of the back
- Activate 'can you identify' to visualize these supply structures and triangle of auscultation

18. Go to An@tomedica, **back** module-regions-frames: **12 and 13** (Deep compartment: roof & floor, contents)

- Click on underlined text to see arrangements of deep compartment
- Activate 'can you identify' to visualize zones and contents of deep compartment

Muscles of the back

19. Go to An@tomedica, **back** module-systems-frames: **16 and 17** (Extrinsic muscles: 1st and 2nd layer)

- Click on underlined text to identify names, positions, attachments, function and supply of individual extrinsic back muscles
- Activate 'can you identify' to see positions and attachments of these muscles

20. Go to An@tomedica, **back** module-systems-frames: **18 and 19** (Extrinsic muscles: 3rd layer, Intrinsic muscles 1st layer)

- Click on underlined text to identify names, positions, attachments, function and supply of individual extrinsic/intrinsic back muscles
- Activate 'can you identify' to see positions and attachments of these muscles

21. Go to An@tomedica, **back** module-systems-frames: **20 and 21** (Intrinsic muscles: 2nd and 3rd layer)

- Click on underlined text to identify names, positions, attachments, function and supply of individual intrinsic back muscles
- Activate 'can you identify' to see positions and attachments of these muscles

22. Go to An@tomedica, **back** module-systems-frame: **22** (Fascia)

- Click on underlined text to identify layers of thoracolumbar fascia
- Activate 'can you identify' to see layers of fascia and muscles between these layers

Neurovascular supply of the back

23. Go to An@tomedica, **back** module-systems-frames: **31 to 33** (Posterior (dorsal) rami, Arteries, Veins)

- Click on underlined text to identify nerves, arteries and veins supplying intrinsic back muscles
- Activate 'can you identify' to see these neurovascular structures

Dissection

24. Go to An@tomedica, **back** module-dissection-frames: **05 to 09** (Extrinsic layers: 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

25. Go to An@tomedica, **back** module-dissection-frames: **11 to 17** (Intrinsic layers/deep compartment: 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

26. Go to An@tomedica, **back** module-dissection-frames: **31 to 33** (Lumbar puncture)

-Click on underlined text to review anatomical basis of the lumbar puncture

-Activate 'can you identify' to visualize structures that are traversed and those that might be endangered by this procedure

27. Go to An@tomedica, **back** module-dissection-frames: **34** (Epidural anaesthesia)

-Activate 'can you identify' to visualize epidural space and dura matter in epidural anaesthesia