

Pelvic walls, vessels and nerves

Curricular Objectives

By the end of this session students are expected to:

Theory

1. Define the pelvis and recall its bones and their orientation
2. Clarify the terms pelvic brim, false pelvis, true pelvis, and pelvic cavity
3. Outline the boundaries of the inlet, outlet and walls of the true pelvis
4. List the foramina on the walls of the pelvic cavity and the structures passing through
5. Name the spaces communicating with the pelvic cavity through foramina
6. Summarize the difference between the pelvic outlet and pelvic floor
7. Review the differences between the male and female pelvis
8. Outline the adaptations of the female pelvis to child birth
9. Name the viscera of the male and female pelvis and their location within the cavity
10. Underline the fascial and peritoneal linings of the pelvis
11. Predict the importance of the recto-uterine pouch in clinical practice
12. List the blood vessels of the true pelvis and their main branches
13. Discuss the risk of severe internal bleeding from fractured pelvis
14. Describe the site of referred pain in pelvic appendicitis

Practical

1. Recall the bones forming the pelvis and identify their parts and main structures
2. Trace the pelvic brim and identify the parts forming it
3. Differentiate between true and false pelvis
4. Distinguish the different bone markings on the walls of true pelvis
5. Identify the sacrotuberous and sacrospinous ligaments and foramina related to them
6. Recognize the obturator membrane and obturator canal
7. Follow the structures passing through the obturator canal
8. Label the muscles (piriformis, obturator internus) and name the fascia covering them
9. Locate the pelvic diaphragm, muscles and openings within it
10. Follow the internal iliac artery and identify its main branches
11. Distinguish the sacral plexus, sciatic nerve, pudendal nerve, and obturator nerve
12. Identify the viscera within male and female pelvis
13. Trace the pelvic peritoneum and locate the spaces formed by its reflections

Selected references and suggested resources

- ✦ Clinical Anatomy by Regions, Richard S. Snell, 9th edition
- ✦ Grant's Atlas of Anatomy, 13th Edition
- ✦ McMinn's Clinical Atlas of Human Anatomy, 7th Edition
- ✦ [Anatomy for Babylon medical students](#) (facebook page)
- ✦ [Anatomy for Babylon medical students](#) (youtube channel)
- ✦ [Human Anatomy Education](#) (facebook page)
- ✦ [Human anatomy education](#) (youtube channel)

Feedback and suggestions

- ✦ <http://goo.gl/forms/SyjGeUpvH>

Lab checklist

1. Bones and bone markings:

- **Hip:**
 - ✓ Ilium, ischium, pubis
 - ✓ Iliopectineal line, pelvic brim
 - ✓ Ischial spine, ischial tuberosity
 - ✓ Superior and inferior ramus of pubis, pubic arch, subpubic angle, pelvic outlet
- **Sacrum:**
 - ✓ Sacral promontory, ala of the sacrum
- **Coccyx**
- True and false pelvis

2. Joints: sacroiliac, symphysis pubis

3. Ligaments:

- ✓ Sacrotuberous, sacrospinous

4. Muscles:

- ✓ Piriformis, obturator internus, levator ani, coccygeus

5. Foramina:

- ✓ Obturator foramen, obturator canal
- ✓ Greater and lesser sciatic foramina
- ✓ Anterior sacral foramina
- ✓ Urogenital hiatus
- ✓ Opening for the rectum (within pelvic diaphragm)

6. Vessels:

- ✓ Common iliac artery and vein
- ✓ External iliac artery and vein
- ✓ Internal iliac artery and vein
- ✓ Anterior and posterior divisions of internal iliac artery

7. Nerves:

- ✓ Obturator nerve
- ✓ Lumbosacral trunk
- ✓ Sacral plexus
- ✓ Sciatic nerve (root value?)
- ✓ Pudendal nerve

8. Pelvic viscera:

- ✓ Urinary bladder
- ✓ Rectum
- ✓ Uterus, vagina

9. Pelvic fascia, peritoneum, and perineal body

10. Pelvic spaces

- ✓ Rectovesical pouch
- ✓ Rectouterine pouch
- ✓ Uterovesical pouch