

Muscles

I. Muscles of the thorax

- A. Intercostal (external)
 - attachments – from rib to rib oriented from superior–lateral to inferior–medial
 - actions – elevation of ribs
 - innervation – intercostal nerve
- B. Intercostal (internal & innermost)
 - attachments – from rib to rib oriented superior–medial to inferior–lateral
 - actions – depression of ribs
 - innervation – intercostal nerve
- C. Transversus thoracis
 - attachments – from posterior sternum to costal cartilages
 - actions – depress ribs
 - innervation – intercostal nerves

II. Muscles of the abdomen

- A. Cremaster (G. kremaster, a suspender)
 - attachments – from the medial edge of the internal oblique to spermatic cord
 - actions – elevation of testis
 - innervation – genitofemoral nerve
- B. Diaphragm
 - attachments – from xiphoid process, inner surface of the lower ribs & costal cartilages, medial & lateral arcuate ligaments & lumbar vertebrae via the crura to the central tendon
 - actions – inspiration (negative thoracic pressure by inferior displacement)
 - innervation – phrenic nerve
- C. External oblique
 - attachments – from lower 8 ribs to iliac crest & rectus sheath
 - actions – flexion & rotation of the trunk, & compression of the abdominal cavity
 - innervation – ventral rami T7–12
- D. Internal oblique
 - attachments – from thoracolumbar fascia to inguinal ligament, iliac crest & rectus sheath
 - actions – flexion & rotation of the trunk, & compression of the abdominal cavity
 - innervation – lower thoracic & L1 ventral rami
- E. Quadratus lumborum
 - attachments – from 12th rib to iliolumbar ligament & iliac crest
 - actions – extension & lateral flexion of the trunk, and fixes 12th rib during respiration
 - innervation – ventral rami T12–L3
- F. Rectus abdominis
 - attachments – from xiphoid process & adjacent costal cartilages to pubic crest & tubercle
 - actions – flexion of trunk & compression of abdominal cavity
 - innervation – lower thoracic ventral rami
- G. Transversus abdominis
 - attachments – from lower six costal cartilages & thoracolumbar fascia to inguinal ligament, iliac crest & rectus sheath
 - actions – compression of the abdominal cavity
 - innervation – lower thoracic & L1 ventral rami

III. Muscles of the pelvis

- A. Iliacus (details under Lower Extremity)
- B. Psoas (details under Lower Extremity)
- C. Piriformis (details under Lower Extremity) (L. pirum, pear)
- D. Obturator internus (details under Lower Extremity)
- E. Pelvic diaphragm
 - 1. Coccygeus
 - attachments – from ischial spine & sacrospinous ligament to coccyx
 - actions – supports & compresses posterior pelvic floor
 - innervation – ventral rami S4–5
 - 2. Levator ani
 - attachments – from pubic symphysis, obturator fascia & ischial spine to midline raphe & anococcygeal ligament

actions – supports pelvic viscera, & compresses rectum & vagina

innervation – pudendal nerve (inferior rectal branches) & S4

IV. Muscles of the perineum

A. Bulbospongiosus

attachments – in male from median raphe & perineal body (central tendon) to surround bulb of penis; in female from the perineal body to surround vestibular bulb, vaginal orifice & clitoris

actions – in male empties urethra, maintains erection & contracts during ejaculation; in female constricts vaginal orifice & contributes to erection of clitoris

innervation – perineal branch of pudendal nerve

B. Ischiocavernosus

attachments – from ischial tuberosity & ramus to aponeurosis surrounding crus of penis or clitoris

actions – compresses crus during erection

innervation – perineal branch of pudendal nerve

C. Sphincter ani externus

attachments – from perineal body (central tendon) to anococcygeal raphe

actions – closes anal canal & fixes perineal body

innervation – inferior rectal branch of pudendal nerve

D. Sphincter urethrae

attachments – surrounds urethra

actions – compresses urethra

innervation – perineal branch of pudendal nerve

E. Compressor urethrae

attachments – in the female from the ischiopubic ramus to midline passing ventral to the urethra and inferior to the sphincter urethrae with a variable number of fibers fanning out medially to reach the vagina (thus replacing the deep transverse perineus)

actions – compresses urethra

innervation – perineal branch of the pudendal nerve

F. Sphincter urethrovaginalis

attachments – from perineal body, surrounds vagina & urethra to meet contralateral muscle inferior to compressor urethrae

actions – compresses urethra & vagina

innervation – perineal branch of the pudendal nerve

G. Deep transverse perineus

attachments – from ischial tuberosity to perineal body (central tendon)

actions – fixes perineal body

innervation – perineal branch of pudendal nerve

H. Superficial transverse perineus

attachments – from ischial tuberosity to perineal body (central tendon)

actions – fixes perineal body

innervation – perineal branch of the pudendal nerve