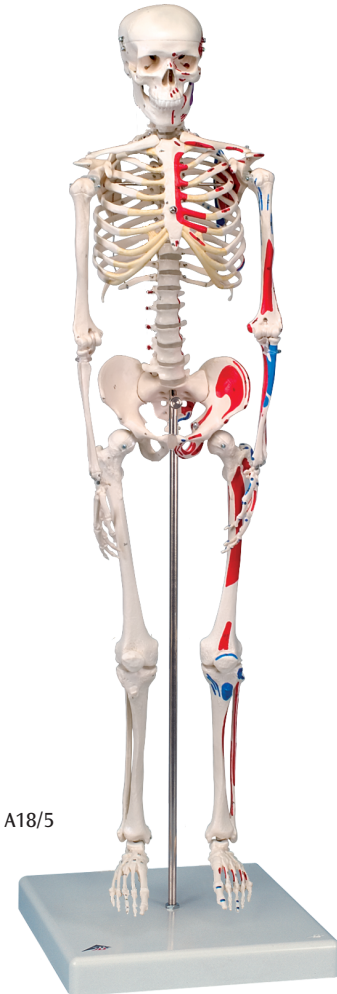
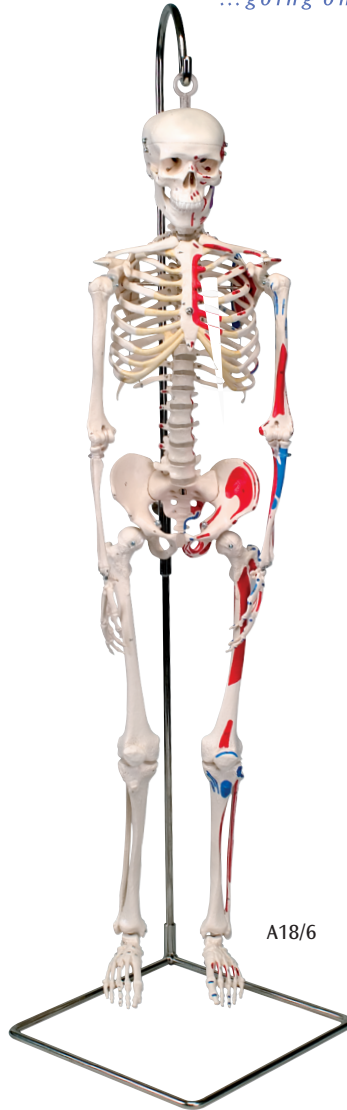




...going one step further



A18/5



A18/6

A18/5
A18/6

Mini Skeleton showing muscles

English

Bones (Right side)

Skull [cranium]

- 1 Frontal bone
- 2 Parietal bone
- 3 Occipital bone
- 4 Coronal suture
- 5 Sagittal suture
- 6 Lambdoid suture
- 7 Nasal bone
- 8 Maxillary bone
- 9 Zygomatic bone (cheekbone)
- 10 Temporal bone
 - a Zygomatic process
 - b External acoustic meatus
 - c Mastoid process
- 11 Palatine bone
- 12 Vomer [vomer bone]
- 13 Sphenoid bone
- 14 Mandibula [mandible]
 - a Condyle of mandible
 - b Coronoid process of mandible

Hyoid bone

- 15 Hyoid bone

Vertebral column (spine)

- C1 1st cervical vertebra
- Th1 1st thoracic vertebra
- L1 1st lumbar vertebra

Sacral bone and coccyx

- 16 Sacral bone
- 17 Coccygeal bone

Thorax

- 18 Sternum
 - a Manubrium of sternum
 - b Xiphoid process
 - I. 1st rib
 - V. 5th rib

Clavicle

- 19 Clavicle

Scapula

- 20 Scapula
 - a Scapular spine
 - b Acromion [acromial bone]
 - c Coracoid process

Humerus

- 21 Humerus
 - a Greater tubercle
 - b Lesser tubercle
 - c Medial epicondyle of humerus
 - d Lateral epicondyle of humerus

Bones of the forearm

- 22 Ulna
 - a Olecranon process of ulna
 - b Coronoid process of ulna
 - c Styloid process of ulna
 - d Head of ulna
- 23 Radius [radial bone]
 - a Head of radius
 - b Radial tuberosity
 - c Styloid process of radius

Skeleton of the hand

- 24 Carpal bones
 - proximal row, listed from radial to ulnar: Scaphoid, lunate, triquetrum, and pisiform bones.
 - Distal row, listed from radial to ulnar: trapezium, trapezoid, capitate, and hamate bones.
- 25 3rd metacarpal bone
- 26 Bones of 3rd digit of hand
 - a Proximal phalanx of hand
 - b Medial phalanx
 - c Distal phalanx of hand

Hip bone (innominate bone)

- 27 Iliac bone
 - a Anterior superior iliac spine
 - b Anterior inferior iliac spine
 - c Posterior superior iliac spine
 - d Posterior inferior iliac spine
- 28 Ischial bone
 - a Ischial spine
 - b Sciatic tuber

29 Pubic bone

- a Ascending ramus of pubis
- b Descending ramus of pubis [inferior pubic ramus]

Femur [thigh bone]

- 30 Femur [thigh bone]
 - a Neck of femur
 - b Greater trochanter
 - c Lesser trochanter
 - d Medial epicondyle of femur
 - e Lateral epicondyle of femur

Patella

- 31 Patella

Bones of the leg

- 32 Tibia [shin bone]
 - a Medial condyle of tibia
 - b Lateral condyle of tibia
 - c Tuberosity of tibia
 - d Medial malleolus
- 33 Fibula
 - a Head of fibula
 - b Lateral malleolus

Skeleton of the foot

- 34 Calcaneus [heel bone]
- 35 Talus
- 36 Navicular bone
- 37 Cuboid bone
- 38 Medial cuneiform bone
- 39 Intermediate cuneiform bone
- 40 Lateral cuneiform bone
- 41 3rd metatarsal bone
- 42 Bones of 3rd digit of foot
 - a Proximal phalanx of foot
 - b Medial phalanx of foot
 - c Distal phalanx of foot

Mini Skeleton showing muscles

Muscles (left side)

For some muscles that have multiple origins or insertions, the latter are only shown exemplarily. The complete distribution of these origins or insertions is stated explicitly.

Origins: red (deep, or intrinsic, back muscles: yellow)

Insertions: blue (deep back muscles: green)

Muscles of the head

Muscles of facial

expression

- 1 Occipital belly of occipitofrontal muscle
- 2 Orbicularis oculi muscle
 - a Orbital part of orbicularis oculi muscle
 - b Lacrimal part of orbicularis oculi muscle
- 3 Superciliary corrugator muscle
- 4 Procerus muscle
- 5 Nasal muscle
 - a Nasal muscle, alar part
 - b Nasal muscle, transverse part
- 6 Depressor muscle of nasal septum
- 7 Buccinator muscle
- 8 Depressor labii inferioris muscle
- 9 Levator labii superioris muscle
- 10 Mental muscle
- 11 Depressor anguli oris muscle
- 12 Levator anguli oris muscle
- 13 Zygomaticus major muscle
- 14 Levator labii superioris alaeque nasi muscle

Muscles of mastication

- 15 Temporalis muscle
- 16 Masseter muscle
- 17 Pterygoideus medialis muscle
- 18 Pterygoideus lateralis muscle

Muscles of the neck

- 19 Platysma

Hyoid muscles

- 20 Digastric muscle
 - a Anterior belly of digastric muscle

- b Posterior belly of digastric muscle

- 21 Mylohyoideus muscle

- Lateral neck muscles

- 22 Sternocleidomastoid muscle

- a Sternocleidomastoid muscle, sternal head

- b Sternocleidomastoid muscle, clavicular head

Scaleni muscles

- 23 Scalenus anterior muscle
Origins on anterior tubercles of transverse processes of 3rd-6th cervical vertebrae

- 24 Scalenus medius muscle
Origins on anterior tubercles of transverse processes of 1st-7th cervical vertebrae

- 25 Scalenus posterior muscle
Origins on posterior tubercles of transverse processes of C5-C6

Prevertebral muscles

- 26 Rectus capitis anterior muscle

- 27 Longus capitis muscle
Origins on anterior tubercles of transverse processes of C3-C6

Deep (intrinsic) back muscles, Erector spinae muscle

Lateral (superficial) tract

Sacrospinal system: the muscles belonging to this system arise in part from the sacrum to insert on the vertebral column and the ribs. Arising from below and medially, they pass upwards, laterally and anteriorly.

- 28 Iliocostal muscle

- a Iliocostalis lumborum muscle
Origins on the spinous processes L5-L1

- Insertions on 5th-12th ribs.
- b Iliocostalis thoracis muscle
Origins on 12th-7th ribs.

- Insertions on 7th-1st ribs.
- c Iliocostalis cervicis muscle
Origins on 7th-3rd ribs.

- Insertions on posterior tubercles of transverse processes of C6-C3

- 29 Longissimus thoracis muscle

- a Longissimus thoracis muscle

- Origins on the spinous processes of L5-L1, mamillary processes of L2-L1, and transverse processes of Th12-Th6
- Insertions on accessory processes of L4-L1, transverse processes of Th12-Th1, costal processes of L4-L1, and 12th-2nd ribs.

- b Longissimus cervicis muscle

- Origins on transverse processes of Th6-Th1, and C7-C3

- Insertions on the posterior tubercles of transverse processes of C5-C2

- c Longissimus capitis muscle
Origins on the transverse processes of Th3-C3

- Intertransverse system: these muscles pass straightly between the transverse processes of contiguous vertebrae*

- 30 Intertransversarii muscles
Origins on the costal and accessory processes of L5-L1, on the transverse processes of Th12-Th10, on the posterior and anterior tubercles of C6-C1
Insertions on costal process of L5, on transverse processes of Th1 and Th11, on mamillary processes of L4-L1, on accessory process of L1, and on posterior and anterior tubercles of transverse processes of C7-C2
- 31 Levatores costarum muscles
Origins on the transverse processes of Th11-C7
Insertions on the 12th-1st ribs
Spinotransversal system: these muscles arise from the spinous processes of the vertebrae and pass obliquely to insert on the transverse processes (resp. laterally on back of the head).
- 32 Splenius muscle
Origins on spinous processes of Th3-C7
Insertions on posterior tubercles of transverse processes C2-C1
Medial (deep) portion
Interspinal system: these muscles pass straightly between the spinous processes of the vertebrae. The uppermost pass to the back of the head.
- 33 Interspinal muscles
Origins on the spinous processes of L5-L1, Th12-Th2, and C7-C2
Insertions on spinous processes of L5-L2, Th12-Th3, Th1-C3
- 34 Spinalis muscle
Origins on the spinous processes of L2-L1, Th12-Th10, Th3-Th1, and C7-C6
Insertions on the spinous processes of Th9-Th2, and C5-C2
Transversospinal system: these muscles pass from the transverse processes of the vertebrae to spinous processes of vertebrae above. Their direction is oblique, and at once upwards, medialwards and backwards.
- 35 Semispinal muscle
Origins on the transverse processes of Th11-C3
Insertions on spinous processes of Th3-C2
- 36 Multifidus muscle
Origins on mamillary processes of L5-L1, transverse processes of Th12-Th1, inferior articular processes of C7-C4
Insertions on spinous processes of L5-L1, Th12-Th1, and C7-C2
- 37 Rotatores muscles
Origins on the mamillary processes of L5-L1, transverse processes of Th12-Th1, inferior articular processes of C7-C1
Insertions on the roots of the spinous processes of L3-L1, Th12-Th1, and C7-C2
Deep cervical muscles
- 38 Rectus capitis posterior major muscle
- 39 Rectus capitis posterior minor muscle
- 40 Obliquus capitis superior muscle
- 41 Obliquus capitis inferior muscle
- 42 Rectus capitis lateralis muscle
- Intermediate muscles of the back**
- 43 Serratus posterior superior muscle
Origins on the spinous processes of C6-C7, Th1-Th2
Insertions on the 2nd-5th ribs.
- 44 Serratus posterior inferior muscle
Origins on the spinous processes of Th11-Th12, and L1-L2
Insertions on the 9th-12th ribs.
- Extrinsic shoulder girdle muscles**
- 45 Trapezius muscle
- a Trapezius muscle, descending part
Origins on spinous processes of upper cervical vertebrae
- b Trapezius muscle, transverse part
Origins on the spinous processes of lower cervical and upper thoracic vertebrae
- c Trapezius muscle, ascending part
Origins on spinous processes of middle and lower thoracic vertebrae
- 46 Levator scapulae muscle
Origins on posterior tubercles of transverse processes of 1st-4th cervical vertebrae
- 47 Rhomboideus major muscle
Origins on spinous processes of Th1-Th4
- 48 Rhomboideus minor muscle
Origins on spinous processes of C6-C7
- 49 Serratus anterior muscle
- a Serratus anterior muscle, upper portion
- b Serratus anterior muscle, middle portion
- c Serratus anterior muscle, lower portion
- 50 Pectoralis minor muscle
- 51 Subclavius muscle
- Trunk/arm muscles**
- 52 Latissimus dorsi muscle
Origins on the spinous pro-

English

cesses of Th7-Th12, and 5th-12th ribs.

- 53 Pectoralis major muscle
 - a Clavicular part of pectoralis major muscle
 - b Sternocostal part of pectoralis major muscle

(Intrinsic) shoulder muscles

- 54 Subscapularis muscle
- 55 Infraspinatus muscle
- 56 Teres minor muscle
- 57 Teres major muscle
- 58 Deltoideus muscle
 - a Deltoideus muscle, anterior (clavicular) portion
 - b Deltoideus muscle, middle (acromial) portion
 - c Deltoideus muscle, posterior (spinal) portion
- 59 Supraspinatus muscle

Muscles of the arm

Anterior

- 60 Biceps brachii muscle
 - a Long head of biceps brachii muscle
 - b Short [medial] head of biceps brachii muscle
- 61 Coracobrachialis muscle
- 62 Brachialis muscle
 - Posterior
- 63 Triceps brachii muscle
 - a Long head of triceps brachii muscle
 - b Medial head of triceps brachii muscle
 - c Lateral head of triceps brachii muscle
- 64 Anconeus muscle

Forearm muscles

Anterior superficial

- 65 Pronator teres muscle
 - a Pronator teres muscle, humeral head
 - b Pronator teres muscle, ulnar head
- 66 Flexor carpi radialis muscle
- 67 Palmaris longus muscle
- 68 Flexor digitorum superficialis muscle
 - a Flexor digitorum superfi-

cialis muscle, humeroulnar head

- b Flexor digitorum superficialis muscle, radial head
- 69 Flexor carpi ulnaris muscle
 - a Flexor carpi ulnaris muscle, humeral head
 - b Flexor carpi ulnaris muscle, ulnar head

Anterior deep

- 70 Flexor digitorum profundus muscle
- 71 Flexor pollicis longus muscle
- 72 Pronator quadratus muscle
- 73 Extensor digitorum muscle of hand
- 74 Extensor carpi ulnaris muscle
 - a Extensor carpi ulnaris muscle, humeral head
 - b Extensor carpi ulnaris muscle, ulnar head

Posterior deep

- 75 Supinator muscle
- 76 Extensor pollicis longus muscle
- 77 Extensor indicis muscle
- 78 Abductor pollicis longus muscle
- 79 Abductor pollicis brevis muscle
 - Radial
- 80 Brachioradialis muscle
- 81 Extensor carpi radialis longus muscle
- 82 Extensor carpi radialis brevis muscle

Muscles of the hand

- 83 Abductor pollicis brevis muscle
- 84 Flexor pollicis brevis muscle
- 85 Opponens pollicis muscle
- 86 Adductor pollicis muscle
 - a Oblique head of adductor pollicis muscle
 - b Transverse head of adductor pollicis muscle
- 87 Abductor digiti minimi muscle of hand
- 88 First to third palmar interossei muscles

- 89 First to fourth palmar interossei muscles

Muscles of the thoracic wall

- 90 External intercostal muscles
 - Origins on lower borders of ribs (first to eleventh); insertions on upper borders of next lower ribs (i. e., second to twelfth)
- 91 Internal intercostal muscles
 - Origins on upper borders of ribs (second to twelfth); insertions on lower borders of next upper ribs (i. e., first to eleventh)
- 92 Transversus thoracis muscle
 - Insertions on cartilages of 2nd-6th ribs

Diaphragm

- 93 Diaphragm
 - a Sternal part of diaphragm
 - b Costal part of diaphragm
 - Origins on cartilages of lower six ribs
 - c Diaphragm, lumbar part, left crus

Muscles of the abdomen

- 94 Rectus abdominis muscle
- 95 Obliquus externus abdominis muscle
 - Origins, interdigitated with pointed origins of serratus anterior muscle on external surfaces of the lower seven ribs
- 96 Obliquus internus abdominis muscle
 - Insertions on inferior borders of the three lower ribs
- 97 Transversus abdominis muscle
 - Origins on inner surfaces of cartilages of the lower six ribs

Muscles of the pelvic floor

- 98 Levator ani muscle
- 99 Ischiooccygeus muscle

- 100 Transversus perinei profundus muscle
101 Ischiocavernosus muscle

Hip muscles**Ventral group**

- 102 Iliopsoas muscle
a Iliacus muscle
b Psoas major muscle

Dorsal group

- 103 Gluteus maximus muscle
104 Gluteus medius muscle
105 Gluteus minimus muscle
106 Piriformis muscle
107 Obturator internus muscle
108 Gemellus superior muscle
109 Gemellus inferior muscle
110 Quadratus femoris muscle

Muscles of the thigh**Anterior**

- 111 Quadriceps muscle
a Rectus femoris muscle, straight head
b Rectus femoris muscle, reflected head
c Vastus medialis muscle
d Vastus lateralis muscle
e Vastus intermedius muscle
f Articularis genu muscle
112 Sartorius muscle
113 Tensor fasciae latae muscle

Posterior

- 114 Biceps femoris muscle
a Long head of biceps femoris muscle
b Short [medial] head of biceps femoris muscle
115 Semitendinosus muscle
116 Semimembranosus muscle

Medial (adductors)

- 117 Gracilis muscle
118 Pectineus muscle
119 Adductor brevis muscle
120 Adductor longus muscle
121 Adductor magnus muscle
122 Obturator externus muscle

Muscles of the leg**Anterior**

- 123 Tibialis anterior muscle
124 Extensor hallucis longus muscle
125 Extensor digitorum longus muscle (of foot)
Insertions on dorsal aponeuroses of the second to fifth digit

Posterior deep

- 126 Triceps surae (calf) muscle
a Medial head of gastrocnemius muscle
b Lateral [great] head of gastrocnemius muscle
c Soleus muscle
d Plantaris muscle
Posterior deep

- 127 Popliteus muscle
128 Tibialis posterior muscle
Insertions on bases of 2nd to 4th metatarsals, plantar surface of all cuneiforms, and navicular tuberosity
129 Flexor digitorum longus muscle
Insertions in the 2nd to 5th distal phalanges
130 Flexor hallucis longus muscle

Lateral

- 131 Peroneus longus muscle
Insertion on plantar surface of intermediate cuneiform and tuberosity of first metatarsal
132 Peroneus brevis muscle

Muscles of the foot

- 133 Abductor hallucis muscle
134 Flexor hallucis brevis muscle
Origins on cuneiform bones
a Flexor hallucis brevis muscle, medial insertion
b Flexor hallucis brevis muscle, lateral insertion
135 Adductor hallucis muscle
Origins on the cuboid and lateral cuneiform bones, as

- well as on metatarsophalangeal joint capsules of digits III-V
136 Flexor digitorum brevis muscle
137 Quadratus plantae muscle
138 1st-3rd plantar interossei muscles
139 1st-4th dorsal interossei muscles
140 Abductor digiti minimi muscle of foot
141 Extensor digitorum brevis muscle of foot
142 Extensor hallucis brevis muscle



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