

MUSCLES OF THE BODY BY FUNCTION

ELBOW MUSCLES BY FUNCTION

Elbow

Flexion:

biceps (short head assists shoulder joint flexion,
long head assists shoulder joint abduction)
brachialis
brachioradialis

Extension:

triceps (anconeus assists)

Radio-ulnar

Supination:

supinator
biceps assist

Pronation:

pronator teres (in extreme supination, is assistant
flexor of elbow)
pronator quadratus

SHOULDER MUSCLES BY FUNCTION

Shoulder joint

Flexion:

pectoralis major, clavicular
anterior deltoid

Extension/Hyperextension:

pectoralis major, sternal
(NB! if humerus is in hyperextension, sternal
pectoralis major will flex the shoulder joint)
latissimus dorsi
teres major
posterior deltoid

Abduction:

middle deltoid
supraspinatus

Adduction:

same as extension

Outward rotation:

infraspinatus
teres minor

Inward rotation:

subscapularis
teres major
latissimus dorsi assists

Horizontal flexion:

subscapularis
pectoralis major
anterior deltoid
coracobrachialis

SHOULDER CONTINUED

Horizontal extension:

posterior deltoid
infraspinatus
teres minor

Shoulder girdle

Elevation:

levator scapulae
trapezius (upper)
rhomboids

Depression:

trapezius (lower)
pectoralis minor
(when there is resistance, pectoralis major and
latissimus dorsi assist by pulling humerus down)

Abduction:

serratus anterior
pectoralis minor

Adduction:

rhomboids
trapezius (middle and lower assists)

Upward rotation:

trapezius (upper and lower)
levator scapulae
serratus anterior

Downward rotation:

rhomboids
pectoralis minor

TRUNK MUSCLES BY FUNCTION

Flexion:

rectus abdominus
oblique abdominals – external and internal
psoas, if upper spine is moving forward

Extension:

erector spinae – superficial, strongest
deep extensors (many-includes multifidus) holders,
get tight
quadratus lumborum – stabilizers of trunk with
locomotion
psoas – hyperextends if upper spine held fixed

Lateral flexion:

erector spinae
deep extensors
quadratus lumborum
rectus abdominus
oblique abdominals
all on same side as direction of movement

TRUNK CONTINUED**Rotation:**

erector spinae – same side
 deep extensors – opposite side
 external obliques – opposite side
 internal obliques – same side

Cervical**Flexion:**

three scaleni – head stabilizers, get tight
 sternocleidomastoideus

Extension:

cervical erector spinae,
 deep extensors

Rotation:

sternocleidomastoideus – opposite side
 erector spinae – same side
 NB: sternocleidomastoideus will lift ribs if back held in extension

HIP MUSCLES BY FUNCTION**Flexion:**

sartorius
 tensor fascia latae
 rectus femoris
 iliopsoas
 pectineus

Extension:

biceps femoris
 semitendinosus
 semimembranosus
 gluteus maximus

Abduction:

gluteus medius
 gluteus minimus
 tensor fascia lata

Adduction:

adductors longus, magnus, brevis, minimus
 gracilis
 pectineus

Outward rotation:

gluteus maximus
 six deep rotators –
 piriformis, gemellus superior, gemellus inferior, obturator externus, obturator internus, quadratus femoris

Inward rotation:

gluteus medius (anterior fibres only)
 gluteus minimus
 tensor fascia lata
 all adductors (particularly in hip flexion)

KNEE MUSCLES BY FUNCTION**Flexion:**

gracilis
 sartorius
 biceps femoris, long and short
 semimembranosus
 semitendinosus
 gastrocnemius
 popliteus

Extension:

rectus femoris
 vastus lateralis
 vastus intermedius
 vastus medialis

Muscles as reinforcements

very important for knee stability
 anterior – quadriceps
 posterior – gastrocnemius
 medial – sartorius, gracilis, semitendinosus
 lateral – biceps femoris, tensor fasciae latae

FOOT & ANKLE MUSCLES BY FUNCTION**Plantar flexion:**

soleus
 gastrocnemius
 tibialis posterior
 fibularis longus
 fibularis brevis

Dorsiflexion:

tibialis anterior
 extensor digitorum longus
 fibularis tertius

Inversion:

tibialis anterior
 tibialis posterior

Eversion:

fibularis longus
 fibularis brevis
 fibularis tertius
 extensor digitorum longus