|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | FRONTALIS - A: (Action) Elevates eyebrows in glancing upward and expressions of surprise or fright; draws scalp forward and wrinkles skin of forehead; O: (Origin) Galea aponeurotica; <br> I: (Insertion) Subcutaneous tissue of eyebrows |
| :---: | :---: | :---: |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | OCCIPITALIS - A: (Action) Retracts scalp; fixes galea aponerotica so frantalis can act on eyebrows; O: (Origin) Superior nuchal line and temporal bone; I: (Insertion) Galea aponeurotica |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | ORBICULARIS OCULI - A: (Action) Sphincter of eyelids; closes eye in blinking, squinting, and sleep; aids in flow of tears across eye; O: (Origin) Lacrimal bone; adjacent regions of frontal bone and maxilla; medial angle of eyelids; I: (Insertion) Upper and lower eyelids; skin around margin of orbit |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | ORBICULARIS ORIS - A: (Action) <br> Encircles mouth, closes lips, protrudes lips as in kissing; uniquely developed in humans for speech; O: (Origin) Modiolus of mouth; I: (Insertion) Submucosa and dermis of lips |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | cheek against teeth and gums; directs food between molars; retracts cheek from teeth when mouth is closing to prevent biting cheek; expels air and liquid; O: (Origin) Alveolar processes on lateral surfaces of mandible and maxilla; I: (Insertion) <br> Orbicularis oris; submucosa of cheek and lips |


|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | PLATYSMA - A: (Action) Draws lower lip and angle of mouth downward in expressions of horror or surprise; may aid in opening mouth widely; O: (Origin) Fascia of deltoid and pectoralis major; I: (Insertion) Mandible; skin and subcutaneous tissue of lower face |
| :---: | :---: | :---: |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | HYOGLOSSUS - A: (Action) Depresses tongue; O: (Origin) Body and greater horn of hyoid bone; I: (Insertion) Lateral and inferior surfaces of tongue |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | TEMPORALIS - A: (Action) Elevation, retraction, and lateral and medial excursion of the mandible; O: (Origin) Temporal lines and temporal fossa of cranium; I: (Insertion) Coronoid process and anterior border of mandibular ramus |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | MASSETER - Elevation of mandible, with smaller roles in protraction, retraction, and lateral and medial excursion; O: (Origin) Zygomatic arch; I: (Insertion) Lateral surface of mandibular ramus and angle |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | MEDIL PTERYGOID - A: (Action) Elevation, protraction, and lateral and medial excursion of the mandible; O : (Origin) Medial surface of lateral pterygoid plate; palatine bone; lateral surface of maxilla near molar teeth; I: (Insertion) Medial surface of mandibular ramus and angle |


|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | Depression (In wide opening of the mouth), protraction, and lateral and medial excursion of the mandible; O: (Origin) <br> Lateral surfaces of lateral pterygoid plate; greater wing of sphenoid; I: (Insertion) <br>  <br> (Action) Unilateral action tilts head slightly |
| :---: | :---: | :---: |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | looking over one's contralateral shoulder. <br> The most common action is probably rotating the head to the left or right. <br> Bilateral action draws the head straight forward and down, as when eating or reading. Aids in deep breathing when head is fixed.; O: (Origin) Manubrium of sternum; medial one third of clavicle; I: |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | TRAPEZZIỨS:- Á: (Action) Extends and ${ }^{1}$ laterally flexes neck.; O: (Origin) External occipital protuberance; medial one-third of superior nuchal line; nuchal ligament; spinous processor of vertebrae C7-T3 or T4; I: (Insertion) Acromion and spine of <br>  |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | two-thirds of air intake); contracts in preparation for sneezing, coughing, crying, laughing, and weight lifting; contraction compresses abdominal viscera and aids in childbirth and expulsion of urine and feces; O: (Origin) Xiphoid process of sternum; ribs and costal cartilages 7-12; lumbar EXTERNAL INTERCOSTALS - A: |
|  | Name the muscle, <br> A: (Action), O: <br> (Origin), and I: <br> (Insertion) | (Action) When scalenes fix rib 1, external intercostals elevate and protract ribs 2-12, expanding the thoracic cavity and creating a partial vacuum causing inflow of air; exercise a braking action during expiration so that expiration is not overly abrupt.; O : (Origin) Inferior margins of ribs $1-11$; I: (Insertion) Superior margin of next lower |

INTERNAL INTERCOSTALS - A:
(Action) In inspiration, the intercartilagous
$\left.\begin{array}{c|c|c|}\begin{array}{c}\text { part aids in elevating the ribs and } \\ \text { expanding the thoracic cavity; in }\end{array} \\ \text { expiration, the interosseous part depresses } \\ \text { and retracts the ribs, compressing the } \\ \text { thoracic cavity and expelling air; the latter } \\ \text { occurs only in forceful expiration, not in } \\ \text { EXTERNAL ABDOMINAL OBLIQUE - } \\ \text { A: (Action) Supports abdominal viscera } \\ \text { Name the muscle, (Action), O: } \\ \text { (Origin), and I: } \\ \text { (Insertion) }\end{array}\right\}$

ERECTOR SPINAE: ILIOCOSTALIS - A:

|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | (Action) Extension and lateral flexion of vertebral column; the longissimus capitis also produces ipsilateral rotation of the head; O: (Origin) Nuchal ligament; ribs 3-12; thoracic and lumbar vertebrae; median and lateral sacral crests; thoracolumbar fascia; I: (Insertion) Mastoid ERECTOR SPINAE: LONGIISSIMUS: A': |
| :---: | :---: | :---: |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | (Action) Extension and lateral flexion of vertebral column; the longissimus capitis also produces ipsilateral rotation of the head; O: (Origin) Nuchal ligament; ribs $3-12$; thoracic and lumbar vertebrae; median and lateral sacral crests; thoracolumbar fascia; I: (Insertion) Mastoid <br>  |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | (Action) Extension and lateral flexion of vertebral column; the longissimus capitis also produces ipsilateral rotation of the head; O: (Origin) Nuchal ligament; ribs 3-12; thoracic and lumbar vertebrae; median and lateral sacral crests; thoracolumbar fascia; I: (Insertion) Mastoid process; cervical and thoracic vertebrae; all |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | (Action) Aids respiration by fixing rib 12 and stabilizing inferior attachments of diaphragm. Unilateral contraction causes ipsilateral flexion of lumbar vertebral column; bilateral contraction extends lumbar vertebral column.; O: (Origin) Iliac crest; iliolumbarligament; I: (Insertion) Rib 12. vertebrae L1-L4 |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | EXTERNAL URETHRAL SPHINCTER - <br> A: (Action) Retains urine in bladder until voluntarily voided; O: (Origin) Ischiopubic rami; I: (Insertion) Encircles urethral orifice |


$\left.\begin{array}{c}\text { Name the muscle, }\end{array} \begin{array}{c}\text { RHOMBOIDEUS MAJOR - A: (Action) } \\ \text { Same as rhomboideus minor; O: (Origin) } \\ \text { (Origin), and I: } \\ \text { (Insertion) }\end{array} \quad \begin{array}{c}\text { Spinous processes of vertebrae T2-T5; I: } \\ \text { (Insertion) Medial border of scapula }\end{array}\right]$

|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | INFRASPINATUS - A: (Action) <br> Modulates action of deltoid, preventing humeral head from sliding upward; rotates humerous laterally; O: (Origin) <br> Infraspinous fossa of scapula; I: (Insertion) Greater tuberclue of humerus |
| :---: | :---: | :---: |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | TERES MINOR - A: (Action) Modulates action of deltoid, preventing humeral head from sliding upward as arm is abducted; rotates humerous laterally; O: (Origin) Lateral border and adjacent posterior surface of scapula; I: (Insertion) Greater tubercle of humerus; posterior surface of joint capsule |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | SUBSCAPULARIS - A: (Action) <br> Modulates action of deltoid, preventing humeral head from sliding upward as arm is abducted; rotates humerus medially; O : (Origin) Subscapular fossa of scapula; I: (Insertion) Lesser tubercle of humerus; anterior surface of joint capsule |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | BRACHIALIS - A: (Action) Prime mover of elbow flexion; O: (Origin) Anterior surface of distal half of humerus; I: <br> (Insertion) Coronoid process and tuberosity of ulna |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | forceful supination of forearm; synergist in elbow flexion; slight shoulder flexion; tendon of long head stabilizes shoulder by holding humeral head against glenoid cavity; O: (Origin) Long head-superior margin of glenoid cavity; Short head-coracoid process; I: (Insertion) Tuberosity of radius; fascia of forearm |


|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | TRICEPS BRACHII - A: (Action) Extends elbow; long head extends and adducts humerus; O: (Origin) Long head-inferior margin of glenoid cavity and joint capsule; Lateral head-posterior surface of proximal end of humerus; Medial head-posterior surface of entire humeral shaft; I: (Insertion) Olecranon; fascia of forearm |
| :---: | :---: | :---: |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | BRACHIORADIALIS - A: (Action) Flexes elbow; O: (Origin) Lateral supracondylar ridge of humerus; I: (Insertion) Lateral surface of radius near styloid process |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | ANCONEUS - A: (Action) Extends elbow; may help to control ulnar movement during pronation; O: (Origin) Lateral epicondyle of humerus; I: (Insertion) Olecranon and posterior surface of ulna |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | PRONATOR QUADRATUS - A: (Action) <br> Prime mover of forearm pronation; also resists separation of radius and ulna when force is applied to forearm through wrist, as in doing push-ups; O: (Origin) Anterior surface of distal ulna; I: (Insertion) Anterior surface of distal radius |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | PRONATOR TERES - A: (Action) Assists pronator quadratus in pronation, but only in rapid or forceful action; weakly flexes elbow; O: (Origin) Humeral shaft near medial epicondyle; coronoid process of ulna; I: (Insertion) Lateral surface of radial shaft |


|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | SUPINATOR - A: (Action) Supinates forearm; O: (Origin) Lateral epicondyle of humerus; supinator crest and fossa of ulna just distal to radial notch; anular and radial collateral ligaments of elbow; I: (Insertion) Proximal one-third of radius |
| :---: | :---: | :---: |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | FLEXOR CARPI RADIALIS - A: (Action) <br> Flexes wrist anteriorly; aids in radial <br> flexion of wrist; O: (Origin) Medial epicondyle of humerus; I: (Insertion) Base of metacarpals II-II |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | FLEXOR CARPI ULNARIS - A: (Action) Flexes wrist anteriorly; aids in ulnar flexion of wrist; O: (Origin) Medial epicondyle of humerus; medial margin of olecranon; posterior surface of ulna; I: (Insertion) Pisiform; hamate; metacarpal V |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | FLEXOR POLLICIS LONGUS - A: <br> (Action) Flexes phalanges of thumb; O: (Origin) Radius; interosseous membrane; I: (Insertion) Distal phalanx I |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | EXTENSOR CARPI RADIALIS <br> LONGUS - A: (Action) Extends wrist; aids in radial flexion of wrist; O: (Origin) Lateral supracondylar ridge of humerus; I: (Insertion) Base of metacarpal II |


|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | EXTENSOR CARPI ULNARIS - A: (Action) Extends and fixes wrist when fist is clenched or hand grips an object; aids in ulnar flexion of wrist; O: (Origin) Lateral epicondyle of humerus; posterior; I: <br> (Insertion) Base of metacarpal V surface of ulnar shaft |
| :---: | :---: | :---: |
|  | Name the muscle, <br> A: (Action), O: <br> (Origin), and I: <br> (Insertion) | EXTENSOR POLLICIS BREVIS - A: <br> (Action) Extends metacarpal I and proximal phalanx of thumb; O: (Origin) <br> Shaft of radius; interosseous membrane; I: (Insertion) proximal phalanx I |
|  | Name the muscle, <br> A: (Action), O: <br> (Origin), and I: <br> (Insertion) | EXTENSOR POLLICIS LONGUS - A: (Action) Extends distal phalanx I; aids in extending proximal phalanx I and metacarpal I; adducts and laterally rotates thumb; O: (Origin) Posterior surface of ulna; interosseous membrane; I: (Insertion) Distal phalanx I |
|  | Name the muscle, <br> A: (Action), O: (Origin), and I: (Insertion) | when trunk is fixed; flexes trunk at hip when thigh is fixed, as in bending forward in a chair or setting up in bed; balances trunk during sitting; O: (Origin) Iliac crest and fossa; superolateral region of sacrum; anterior sacroiliac and iliolumbar ligaments; I: (Insertion) Lesser trochanter and nearby shaft of femur |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | PSOAS MAJOR - A: (Action) Same as iliacus; O: (Origin) Bodies and intervertebral discs of vertebrae T12-L5; transverse processes of lumbar vertebrae; I: (Insertion) Lesser trochanter and nearby shaft of femur. |



|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | RECTUS FEMORIS - A: (Action) Extends knee; flexes thigh at hip; flexes trunk on hip if thigh is fixed; O : (Origin) Ilium at anterior inferior spine and superior margin of acetabulum; capsule of hip joint; I: (Insertion) See quadriceps femoris above |
| :---: | :---: | :---: |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | knee; extends hip; elevates trunk from stooping posture; laterally rotates tibia on femur when knee is flexed; laterally rotates femur when hip is extended; counteracts forward bending at hips; O: (Origin) Long head-ischial tuberosity; Short head-linea aspera and lateral supracondylar line of femur; I: (Insertion) Head of fibula |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | SEMITENDINOSUS - A: (Action) Flexes knee; medially rotates tibia on femur when knee is flexed; medially rotates femur when hip is extended; counteracts forward bending at hips; O: (Origin) Ischial tuberosity; I: (Insertion) Medial surface of upper tibia |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | SEMIMEMBRANOSUS - A: (Action) <br> Same as semitendinosus, O: (Origin) Ischial tuberosity; I: (Insertion) Medial condyle and nearby margin of tibia; intercondylar line and lateral condyle of femur; ligament of popliteal region |
|  | Name the muscle, A: (Action), O: (Origin), and I: (Insertion) | medially on femur if femur is fixed (as in sitting down), or rotates femur laterally on tibia if tibia is fixed (as in standing up); unlocks knee to allow flexion; may prevent forward dislocation of femur during crouching; O: (Origin) Lateral condyle of femur; lateral meniscus and joint capsule; I: (Insertion) Posterior surface of upper tibia |

## TIBIALIS ANTERIOR A: (Action)

| Name the muscle, |
| :---: | :---: | :---: |
| A: (Action), O: |
| (Origin), and I: |
| (Insertion) |$\quad$| Dorsiflexes and inverts foot; resists <br> backward tipping of body (as when <br> standing on a moving boat deck); helps <br> support medial longitudinal arch of foot; O: <br> Origin) Lateral condyle and lateral margin <br> of proximal half of tibia; interosseous <br> membrane; I: (Insertion) Medial cuneiform, <br> metatarsal I |
| :---: |

