

## Anterior I/O and Action Review ----- Brian J. Piccolo, NCTMB

Sartorius	<p><b>O:</b> Anterior superior iliac spine (ASIS)</p> <p><b>I:</b> Proximal, medial shaft of the tibia, <i>Pes anserinus</i> tendon.</p>	<p><b>A:</b></p> <p>Flexes the hip</p> <p>Laterally rotates the hip</p> <p>Abducts the hip</p>
Tibialis Anterior	<p><b>O:</b> Lateral condyle of tibia, proximal lateral surface of tibia, interosseous membrane.</p> <p><b>I:</b> Medial cuneiform, base of the first metatarsal.</p>	<p><b>A:</b></p> <p>Inverts the foot.</p> <p>Dorsiflexes the ankle.</p>
Rectus Abdominis	<p><b>O:</b> Cartilage of fifth, sixth, and seventh ribs, and xiphoid process.</p> <p><b>I:</b> Pubic crest, pubic symphysis.</p>	<p><b>A:</b></p> <p>Flexes the vertebral column.</p>
Extension Digitorum	<p><b>O:</b> Common extensor tendon from lateral epicondyle of humerus.</p> <p><b>I:</b> Middle and distal phalanges of second through fifth fingers.</p>	<p><b>A:</b></p> <p>Extends the second through fifth fingers (metacarpophalangeal and interphalangeal joints).</p> <p>Assist in extension of wrist (radiocarpal joint).</p>
Brachioradialis	<p><b>O:</b> Lateral supracondylar ridge of humerus.</p> <p><b>I:</b> Styloid process of radius.</p>	<p><b>A:</b></p> <p>Flexes the elbow.</p> <p>Assists in pronation and supination of the forearm when these movements are resisted.</p>
Extensor Hallucis Longus	<p><b>O:</b> Middle anterior surface of fibula, interosseous membrane.</p> <p><b>I:</b> Distal phalanx of the first toe.</p>	<p><b>A:</b></p> <p>Extend the first toe</p> <p>Dorsi flexes the ankle</p> <p>Inverts the foot.</p>
Abductor Hallucis	<p><b>O:</b> Calcaneus ( plantar side), medial sesamoid bone.</p> <p><b>I:</b> Proximal phalange on the first toe (media side).</p>	<p><b>A:</b></p> <p>Abducts the first toe</p> <p>Assist in flexion of the first toe</p>
Biceps Brachii	<p><b>O:</b> <i>Short Head:</i> Coracoid process of scapula.</p> <p><i>Long Head:</i> Supraglenoid tubercle of scapula.</p> <p><b>I:</b> Tuberosity of radius and aponeurosis of the biceps brachii.</p>	<p><b>A:</b></p> <p>Flexes the elbow.</p> <p>Supinates the forearm.</p> <p>Flexes shoulder.</p>
External Oblique	<p><b>O:</b> Lower eight ribs.</p> <p><b>I:</b> Anterior part of the iliac crest, abdominal aponeurosis at linea alba.</p>	<p><b>A: Bilaterally:</b></p> <p>Flexes the vertebral column</p> <p>Compress abdominal contents</p> <p><b>A: Unilaterally:</b></p> <p>Laterally flexes vertebral column to the same side.</p> <p>Rotates vertebral column to <u>opposite</u> side.</p>
Extensor Pollicis Longus	<p><b>O:</b> Posterior surface of radius and ulna, deep to extensors.</p> <p><b>I:</b> Distal phalange of thumb.</p>	<p><b>A:</b></p> <p>Extend the thumb (interphalangeal joint).</p> <p>Assist in extending the thumb (metacarpophalangeal joints).</p>

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Rectus Femoris	<p><b>O:</b> Anterior inferior iliac spine.</p> <p><b>I:</b> Tibial Tuberosity.</p>	<p><b>A:</b> Extend the Knee Flexes the Hip</p>
Coracobrachialis	<p><b>O:</b> Coracoid process of scapula.</p> <p><b>I:</b> Medial surface of mid-humeral shaft.</p>	<p><b>A:</b> Flexes the shoulder. Adducts the shoulder.</p>
Flexor Carpi Ulnaris	<p><b>O:</b> Common flexor tendon from medial epicondyle.</p> <p><b>I:</b> Pisiform.</p>	<p><b>A:</b> Flexes the wrist (radiocarpal joint). Adducts the wrist (radiocarpal joint). May flex the elbow (humeroulnar joint).</p>
Adductor Hallucis	<p><b>O:</b> Oblique head-second, third, and fourth metatarsal bones.</p> <p><b>I:</b> Later side of base of proximal phalanx of great toe.</p>	<p><b>A:</b> Adducts Great Toe.</p>
Pectoralis Major	<p><b>O:</b> Medial half of clavicle, sternum, cartilage of ribs one through six.</p> <p><b>I:</b> Crest of greater tubercle of humerus.</p>	<p><b>A:</b> Adducts the shoulder. Medially rotates the shoulder. May assist in elevating the thorax in forced inhalation (if arm is fixed).</p>
Pectoralis Minor	<p><b>O:</b> Third, fourth, and fifth ribs.</p> <p><b>I:</b> Coracoid process of scapula.</p>	<p><b>A:</b> Depresses the scapula. Abducts the scapula. Tilts the scapula anteriorly. Assist in forced inhalation (if scapula is fixed).</p>
Scalene	<p><b>O:</b> Transverse processes of C 2-7</p> <p><b>I:</b> First and second rib.</p>	<p><b>A:</b> <i>Bilaterally</i> Elevates the ribs during inhalation. Flex the Neck (Anterior). <b>A:</b> <i>Unilaterally</i> With the ribs fixed, laterally flex the neck to the same side. Rotate head and neck to the opposite side.</p>
Illiopsoas Major	<p><b>O:</b> Bodies and transverse processes of lumbar vertebrae.</p> <p><b>I:</b> Lesser trochanter of the femur.</p>	<p><b>A:</b> Flexes the hip. Laterally rotates the hip. Adducts the hip.</p>
Sternocleidomastoid	<p><b>O:</b> <i>Sternal head:</i> Top of manubrium. <i>Clavicular head:</i> Medial one-third of the clavicle.</p> <p><b>I:</b> Mastoid process of temporal bone, later superior nuchal line of occiput.</p>	<p><b>A:</b> Laterally Flex Head and Neck to same side. Rotate head and neck to opposite side.</p>
Gracilis	<p><b>O:</b> Inferior ramus of pubis and ramus of ischium.</p> <p><b>I:</b> Proximal, medial shaft of tibia at <i>pes anserinus</i> tendon.</p>	<p><b>A:</b> Adducts the hip. Medially rotates the hip. Flexes and medially rotates the knee.</p>