Final Exam Study Sheet

Key Muscles and Selected Key Actions

# Spine

**Anterior muscles**

Common action is spinal flexion, except transverse abdominis

Rectus abdominis—Spinal flexion, lateral flexion (same)

External oblique—Spinal flexion, spinal lateral flexion (same), spinal rotation (opposite)

Internal oblique—Spinal flexion, spinal lateral flexion (same), spinal rotation (same)

Transverse abdominis—Spinal stability

**Posterior muscles**

Common action is spinal extension.

Erector spinae—Spinal extension, spinal lateral flexion (same), spinal rotation (same)

**Lateral muscles**

Common action is spinal lateral flexion.

Quadratus lumborum—Spinal lateral flexion (same)

# Hip

**Anterior muscles**

Common action is hip flexion.

Iliopsoas—Hip flexion

Rectus femoris—Hip flexion, knee extension

Sartorius—Hip flexion, hip abduction, hip external rotation

**Posterior muscles**

Gluteus maximus—Hip extension, hip external rotation

Hamstrings—Hip extension, knee flexion  
*(Also know the names of the components of the hamstrings: semimembranosus, semitendinosus, and biceps femoris.)*

Deep outward rotators—Hip external rotation

**Lateral muscles**

Common action is hip abduction.

Gluteus medius—Hip abduction, hip internal rotation

Gluteus minimus—Hip abduction, hip internal rotation

Tensor fasciae latae—Hip abduction, hip flexion, hip internal rotation

**Medial muscles**

Common action is hip adduction.

Adductor longus, adductor brevis, pectineus, gracilis—All produce hip adduction, assist with hip flexion

Adductor magnus—Hip adduction, assist with hip flexion (anterior fibers) and hip extension (posterior fibers)

# Knee

**Anterior muscles**

Common action is knee extension; notice that this is the opposite of the spine and hip, in which the anterior muscles’ action is flexion.

Quadriceps femoris—Knee extension  
*(Also know the names of the components of the quadriceps femoris: rectus femoris, vastus medialis, vastus intermedius, and vastus lateralis.)*

**Posterior muscles**

Common action is knee flexion; notice that this is the opposite of the spine and hip, in which the posterior muscles’ action is extension.

Hamstrings—Knee flexion  
*(Also know the names of the components of the hamstrings: semimembranosus, semitendinosus, and biceps femoris.)*

# Ankle–Foot (A-F) (simplified to not include actions at toes)

**Anterior muscles**

Common action is A-F dorsiflexion.

Tibial anterior—A-F dorsiflexion, foot inversion

Extensor hallucis longus—A-F dorsiflexion, foot inversion

Extensor digitorum longus—A-F dorsiflexion, foot eversion

**Posterior muscles**

Common action is A-F plantar flexion.

Gastrocnemius—A-F plantar flexion

Soleus—A-F plantar flexion

**Posteromedial muscles**

Common actions are A-F plantar flexion and inversion.

Tibialis posterior—A-F plantar flexion, foot inversion

Flexor hallucis longus—A-F plantar flexion, foot inversion

Flexor digitorum longus—A-F plantar flexion, foot inversion

**Lateral muscles**

Common actions are A-F plantar flexion and eversion.

Peroneus longus—A-F plantar flexion, foot eversion

Peroneus brevis—A-F plantar flexion, foot eversion

# Shoulder Complex

**Scapular muscles**

Actions will not be on the final exam; just know the names.

Posterior scapular muscles—Trapezius, rhomboids, levator scapulae

Anterior scapular muscles—Serratus anterior (pectoralis minor not required learning for this course)

**Rotator cuff muscles**

Supraspinatus—Shoulder abduction

Infraspinatus—Shoulder external rotation

Teres minor—Shoulder external rotation

Subscapularis—Shoulder internal rotation

*(Subscapularis, infraspinatus, and teres minor are the muscles that make up the SIT force couple.)*

**Other major glenohumeral muscles**

Pectoralis major (clavicular)—Shoulder flexion, shoulder internal rotation, shoulder adduction

Pectoralis major (sternal)—Shoulder extension, shoulder internal rotation, shoulder adduction

Anterior deltoid—Shoulder flexion, shoulder internal rotation

Middle deltoid—Shoulder abduction

Posterior deltoid—Shoulder extension, shoulder external rotation

Latissimus dorsi—Shoulder extension, shoulder internal rotation, shoulder adduction

Teres major—Shoulder extension, shoulder internal rotation

*(Shoulder adduction is created by the cocontraction of a muscle from the front of the shoulder joint with one from the back of the shoulder joint, such as pectoralis major and latissimus dorsi.)*