

Table 4

LOWER EXTREMITY MUSCLE BALANCING

Function	Muscle(s) facilitated	Muscle(s) inhibited
Hip flexion	<i>Psoas major, iliacus</i> Rectus femoris, sartorius, Pectineus, tensor fasciae latae, adductor brevis, adductor longus & adductor magnus (oblique fibers)	<i>Gluteus maximus,</i> <i>semitendinosus,</i> <i>sem imembranosus,</i> <i>biceps femoris (long head)</i>
Hip extension	<i>Gluteus maximus,</i> <i>semitendinosus,</i> <i>semirrernbranosus, biceps</i> <i>Femoris (long head)</i>	<i>Psoas major, iliacus,</i> rectus femoris, sartorius, pectineus, tensor fasciae latae, adductor brevis, adductor longus & adductor magnus (oblique fibers)
Hip abduction	<i>Gluteus medius,</i> gluteus minimus, tensor fasciae latae & gluteus maximus (superior fibers)	<i>Adductor magnus,</i> <i>adductor brevis,</i> <i>adductor longus,</i> <i>pectineus & gracilis</i>
Hip adduction	<i>Adductor magnus,</i> <i>adductor brevis,</i> <i>adductor longus, pectineus &</i> <i>gracilis</i>	<i>Gluteus medius,</i> gluteus minimus, tensor fasciae latae & gluteus maximus (superior fibers)
Hip external rotation	<i>Obturator externus,</i> <i>obturator internus,</i> <i>quadratus femoris,</i> <i>gemellus inferior,</i> <i>gerrellus superior,</i> <i>piriformis,</i> sartorius, biceps femoris (long head), gluteus maximus	<i>Gluteus minimus,</i> <i>tensor fasciae latae,</i> gluteus medius (anterior fibers), semitendinosus & semimembranosus

The exercise implied should be first employed in the agonist test position and then in a sitting or standing position; muscles listed in bold italics are prime movers, all others are accessory muscles.

Hip internal rotation	<i>Gluteus minimus, tensor fasciae latae,</i> gluteus medius (anterior fibers), semitendinosus & semimembranosus	<i>Obturator externus, obturator internus, quadratus femoris, gemellus inferior, gemellus superior, piriformis, gluteus maximus,</i> sartorius, biceps femoris (long head)
Knee flexion	<i>Biceps femoris (long and short heads), semitendinosus, semimembranosus,</i> popliteus, gracilis, sartorius & gastrocnemius	<i>Rectus Femoris, vastus interredius, vastus medialis & vastus lateralis</i>
Knee extension	<i>Rectus Femoris, vastus intermedium, vastus medialis & vastus lateralis</i>	<i>Biceps femoris (long & short heads), semitendinosus, semimembranosus,</i> popliteus, gracilis, sartorius & gastrocnemius
Ankle plantar flexion	<i>Gastrocnemius, soleus, tibialis posterior,</i> peroneus longus, peroneus brevis, flexor hallucis longus, flexor flexor digitorum longus & plantaris	<i>Tibialis anterior, extensor digitorum longus, extensor hallucis longus &</i> peroneus tertius
Ankle dorsiflexion	<i>Tibialis anterior, extensor digitorum longus, extensor hallucis longus</i> & peroneus tertius	<i>Gastrocnemius, soleus, tibialis posterior,</i> peroneus longus, peroneus brevis, flexor hallucis longus, flexor digitorum longus & plantaris
Foot inversion	<i>Tibialis anterior & tibialis posterior</i>	<i>Peroneus longus & peroneus brevis</i>
Foot eversion	<i>Peroneus longus & peroneus brevis</i>	<i>Tibialis anterior & tibialis posterior</i>
Flexion of the toe metatarsophalangeal joints	<i>Lumbricales, flexor hallucis brevis,</i> dorsal and plantar interossei, flexor digiti quinti brevis, flexor digitorum longus, flexor digitorum brevis & flexor hallucis longus	<i>Extensor digitorum longus, extensor digitorum brevis &</i> extensor hallucis longus

Extension of the toe Metatarsophalangeal Joints	<i>Extensor digitorum longus, extensor digitorum brevis & extensor hallucis longus</i>	<i>Lumbricales, flexor hallucis brevis, dorsal & plantar interossei, flexor digiti quinti brevis, flexor digitorum longus, flexor digitorum brevis & flexor hallucis longus</i>
Flexion of the toe Interphalangeal Joints Extension of the toe interphalangeal joints	<i>Flexor digitorum longus, flexor digitorum brevis & flexor hallucis longus Extensor digitorum longus & extensor hallucis longus</i>	<i>Extensor digitorum longus & extensor hallucis longus Flexor digitorum longus, flexor digitorum brevis & flexor hallucis longus</i>
Toe abduction	<i>Dorsal interossei, abductor Hallucis & abductor digiti Quinti</i>	<i>Plantar interossei & adductor hallucis</i>
Toe adduction	<i>Plantar interossei & adductor hallucis</i>	<i>Dorsal interossei, abductor hallucis & abductor digiti quinti</i>