

Muscles Used for Skating (the skating anatomy)

ANKLE JOINT

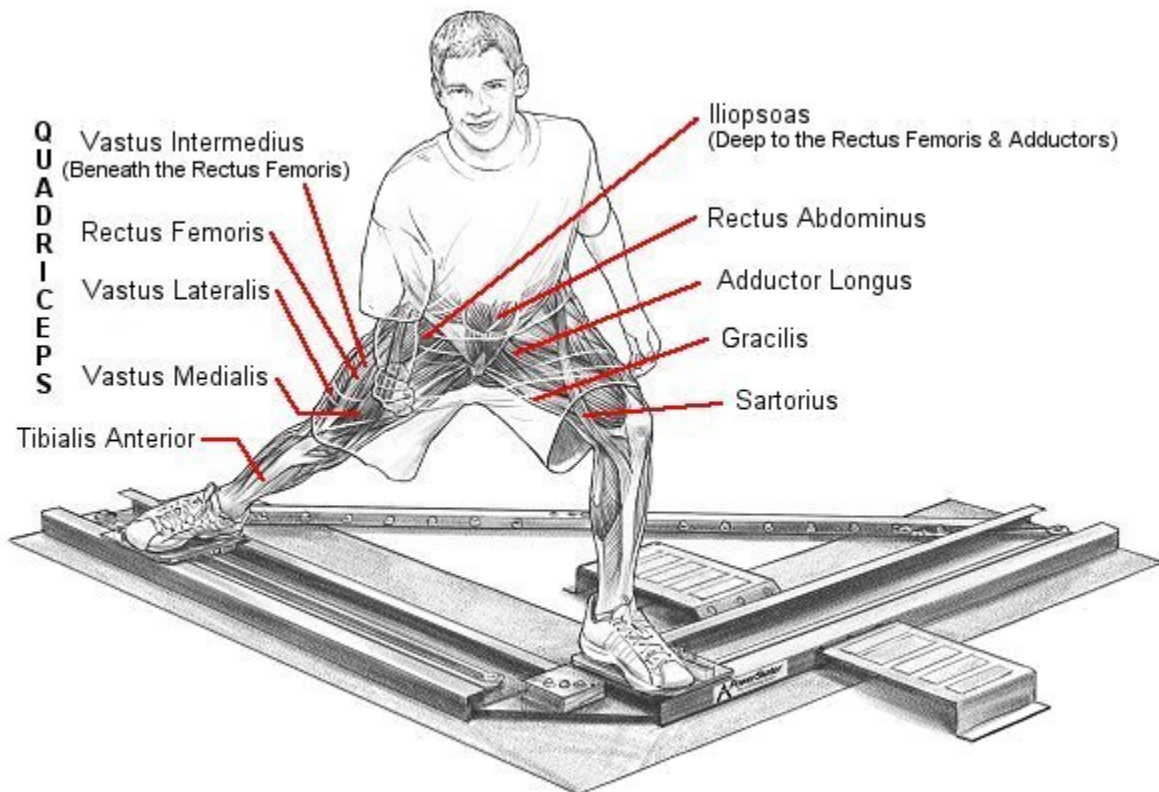
The calf muscles (soleus and gastrocnemius) and the anterior shin section (tibialis anterior) muscles contract isometrically during the push-off phase and the glide phase.

KNEE JOINT

The knee performs the action of extension (skating stride push-off) and flexion (returning the leg to the glide position). The quadriceps are made up of four muscles: vastus intermedius, rectus femoris, vastus lateralis, vastus medialis. Three muscles make up the hamstring muscle group: biceps femoris, semitendinosus, semimembranosus. The movements of the knee are:

Knee Extension - quadricep muscle group are the key muscles involved in the knee extension.

Knee Flexion - Hamstring muscle group are responsible for knee flexion.



HIP JOINT

The hip joint allows for a wide range of motion providing six important movements. Many muscles cross the hip from various angles. In skating, the abduction, extension and external rotation motions are the three most important. Some of these muscles interface with the knee joint. The six movements of the hip joint are:

External Rotation - muscles of the external rotation turn the leg and kneecap outward.

Internal Rotation - muscles of internal rotation turn the leg and kneecap inward.

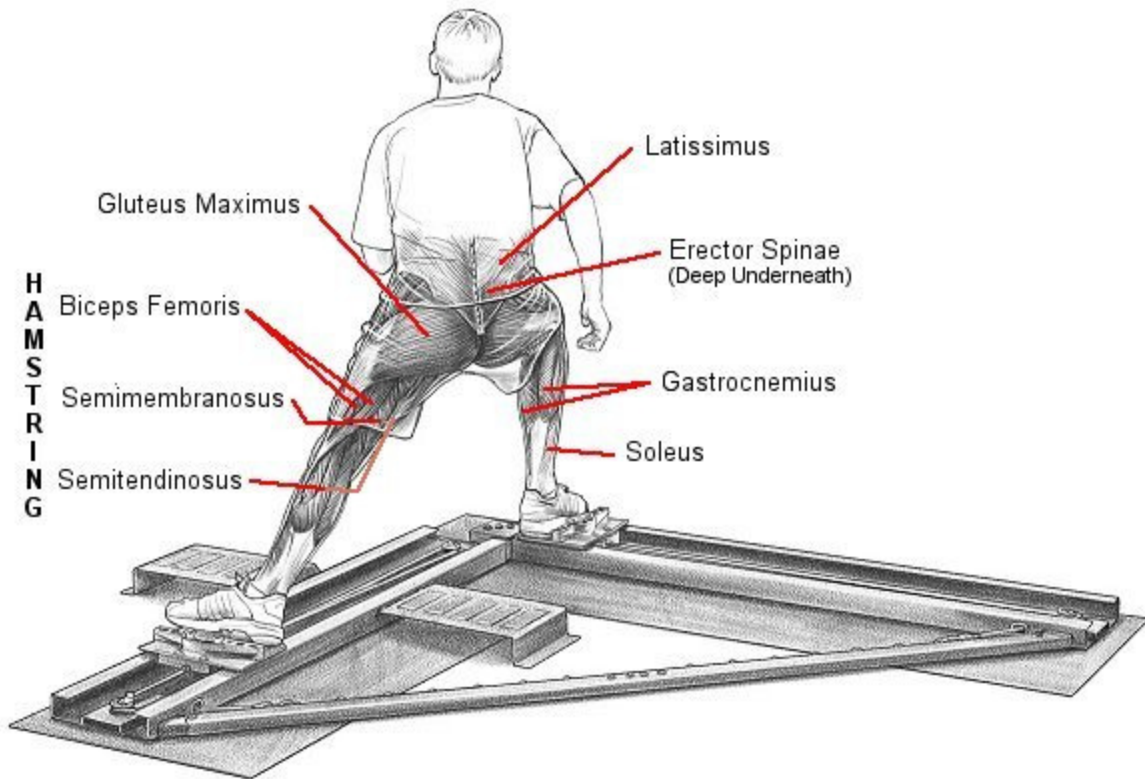
Abduction - The abduction muscles move the leg away from the midline of the body.

Adduction - The adduction muscle group consist of the groin muscles that move the legs toward

the midline of the body.

Extension - muscles move the thigh backward opposing the flexion muscles.

Flexion - muscles move the thigh toward the chest opposing the extension muscles.



TRUNK (CORE)

The abdominal and extensor muscles of the back are the support muscles that help stabilize the core area. These are the muscles that connect the lower body movement to the upper body maintaining stability in the hip and lower back. The movements of the trunk are:

Flexion - the rectus abdominus muscles lean the chest and stomach forward.

Extension - the erector spinae muscles of the back support the spine when it flexes forward.

Rotation - the external and internal oblique abdominal muscles control the trunk rotation.