

Megan R. Wolf, MD Sports Medicine

PATELLAR PROTECTION PROTOCOL

Weeks 0-2:

Limit loaded knee flexion to < 45 degrees

- VMO strengthening (see reverse for exercise suggestions). Goal is to have a 1:1 ration of VMO: VL contraction. Exercises should be closed-chain, +/- biofeedback.
- Ensure gluteus medius strength is sufficient to control pelvis and prevent excessive medial rotation
- Decrease pain and inflammation ice, modalities and rest from pain-provoking activities
- Tape may be used to correct any abnormal patellar positioning (criteria for use of tape: it should decrease symptoms by at least 50% during diagnostic tests)
- Stretching / soft tissue techniques lateral retinaculum, hamstrings, calf muscles, ITB

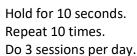
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Medical Plaza Miller

LOWER EXTREMITY

SITTING VMO SELF-BIOFEEDBACK

Sitting, place one hand on thigh muscle just above knee, inside, and other hand on thigh muscle just below hip, outside.
Contract thigh muscles so inside of thigh is tight and outside is relaxed





LOWER EXTREMITY

QUAD STRENGTH (VMO): Partial Squat with External Hip Rotation

With feet shoulder-width apart and out at 45°, bend knees to 30-45°. Return.

Repeat 10 times OR for 3 minutes Do 3 sessions per day.

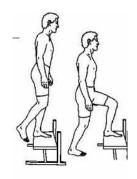
CAUTION: You should not bend knees deep enough to cause pain.

HIP/KNEE

VMO: Step-down

Stand on stair step or 4-6" stool. Slowly bend right/left leg, lowering other foot to floor. Return to starting position. Contract inside thigh muscle.

Repeat 10 times per set. Do 3 sessions per day.



LOWER EXTREMITY

STANDING VMO SELF-BIOFEEDBACK

Standing, place one hand on thigh muscle just above knee, inside, and other hand on thigh muscle just below hip, outside. Contract thigh muscles so inside of thigh is tight and outside is relaxed.

Hold 10 seconds. Repeat 10 times. Do 3 sessions per day.



LOWER EXTREMITY

WALK STANCE

Take a step forward. With one hand on thigh muscle just above knee, inside, and other hand on thigh muscle just below hip, outside. Contract thigh muscle so inside of thigh is tight and outside is relaxed.

Hold 10 seconds. Repeat 10 times. Do 3 sessions per day.



LOWER EXTREMITY

VMO: Wall Slide

With feet shoulder-width apart and back against wall, slide down wall until knees are at 30-450.
Return. Contract inside thigh muscle.

Repeat 10 times.

Do 3 sessions per day.



CAUTION: You should not bend knees deep enough to cause pain.