Connecticut Orthopaedics

Megan R. Wolf, MD

Sports Medicine/Foot & Ankle

Patellar Protection Protocol

Home Exercise Program

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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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

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

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

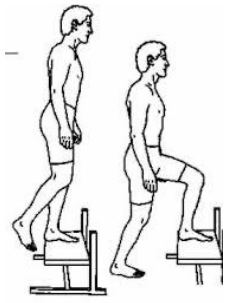


With feet shoulder-width apart and out at 45^0, bend knees to 30-45^0. Return.

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.

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.

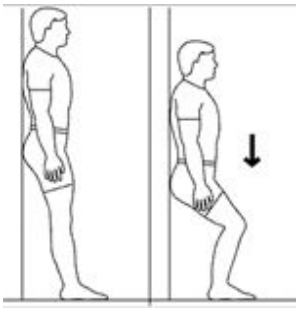
LOWER EXTREMITY
WALK STANCE



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.

LOWER EXTREMITY