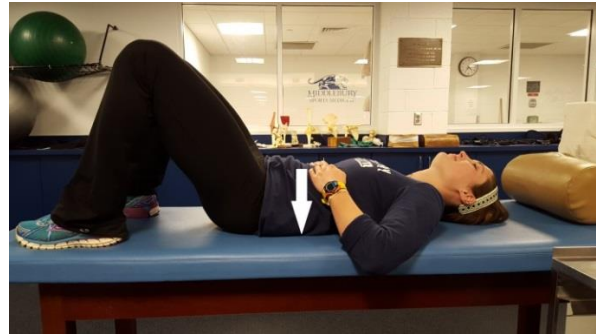


MIDDLEBURY COLLEGE  
SPORTS MEDICINE

Lumbar & Core Strengthening

Pelvic Tilt

Lay on the floor with knees bent and feel flat on the floor hip width apart. Tighten abdominal muscles and pull the lower back to the floor. Hold for 10 seconds and then slowly lower hip back to the floor. Repeat exercise 10 times.



Physio Ball Bridges

Lay on the floor with both feet propped up on the Physio ball with legs straight and arms relaxed at your sides. Find the neutral spine position and hold while slowly tightening the glut muscles to lift hips off the floor a few inches. Slowly lower hips back to starting position. Do 2-3 sets of 10 reps each.



## Straight Leg Raises

Lie on back with one knee bent and opposite leg straight. Tighten abdominals and gluts, keeping spine in neutral position. Raise straight leg 12 inches off the floor. Hold for 3 seconds and then slowly lower leg. Repeat this 10 times and then switch legs.



## Prayer, Cat and Camel

Start on hands and knees, neutral spine.

1. Prayer (Child's Pose)- exhale as you sit back onto your heels, lower head, tuck chin and reach arms out. Hold this position for 15-20 seconds and then return to starting position.
2. Cat- Inhale as you arch your back up and hollow out abdominals while head remains tucked in. Hold for 3 seconds and then return to starting position.
3. Camel- exhale and lower abdominals, dropping/rotation hips down, and reach chin towards ceiling. Hold for 3 seconds and then return to starting position.



## Planks (Bow and Toes)

Lie on your stomach on a table or floor with your forearms/elbows on the table/floor. Rise up so that you are resting on your forearms and toes only, keeping your abdominal muscles tight and back flat. Hold this position for 15-60 seconds. Slowly lower back down to starting position. Progress in increments of 15 seconds until you can hold for 60 seconds. Repeat 5-10 times.



## Side Planks

Lie on your side with your elbow underneath you. Rise up so that you are resting one forearm/elbow and foot on same side. Hold this position for 15-60 seconds. Then slowly lower back to starting position (Progress in increments of 15 seconds) Repeat 5-10 times. Make sure to complete exercise on both sides. \*More challenging- Same starting position. Bridge up and hold this position while slowly lifting your hip/leg at your side up and down. Lift leg up and down 15-20 times each side.



## Prone Cobra's

Lie on your stomach on the table or floor with your arms at your side, palms down. Lift your head and chest off the table/floor, tighten your gluts and squeeze your shoulder blades together. Hold briefly and slowly return to starting position. Repeat 10-20 times.





## Superman's

Lie on your stomach on the table or floor with arms and legs extended, retract shoulder blades down and in towards the midline of your spine and tighten your abdominal muscles. Maintain this position; lift opposite arm and opposite leg ensuring that your hips stay in contact with the floor. Hold for 3-5 seconds and switch. Repeat 10-20 times.



## Opposite Arm/Leg

Starting on both hands and knees, keep head straight with knees bent to 90 degrees. Engage your core to keep your back straight during entire exercise and use your hamstrings, glutes, and low back muscles to lift your leg straight while lifting opposite arm at the same time. Hold for 3 seconds and then slowly return to starting position. Repeat 10 times on each side.



## Bridges

Lie on your back on table or floor with knees bent to 90 degrees and feet flat on the floor, arms palm-down at sides. Tighten abdominal muscles and maintain throughout exercise. Slowly raise your hips off floor/table by using your glutes and hamstrings until your torso is in light with your thighs. Hold for 3-5 seconds. Repeat 10-20 times.



\*More challenging- do this same exercise with one leg straight out and lift leg in line with thigh and torso, other foot is still flat on the floor. Repeat exercise on both legs.



### Supine Dead Bug

Lie on your back on table or floor with arms perpendicular to floor and hips and knees bent to 90 degrees. Tighten abdominal muscles and maintain throughout exercise. Extend one arm above head while lowering the opposite foot to the floor at the same time. Contract abdominal muscles to bring arms and legs back to starting position. Repeat on opposite side. Repeat 10-20 times.



### Physioball Sitting (Add Leg Lift)

Begin by sitting on Physioball with your spine straight, knees at 90 degrees and your hands on your hips. Your feet are shoulder width apart, tighten abdominal muscles and maintain this position for 3-5 seconds, then relax. Repeat 10-20 times.

\*Add Leg Lift- sitting on Physioball with straight spine, knees at 90 degrees and hands on hips. Abdominals tightened throughout exercise. Begin to slowly raise one knee up and hold for 3-5 seconds, keeping hips level than slowly lower leg back down to starting position. Repeat on opposite side. Complete 10-20 times on each side.

