

IMPORTANT NOTICE: These exercises should not be performed without professional guidance. Each exercise is for a specific musculoskeletal problem.

While one exercise might help your particular condition, another one might hurt it; this is why it's important to see a Doctor Of Physical Therapy First!

FYZICAL Therapy & Balance Center in North Cape May - Best Physical Therapy and Rehabilitation Center in Cape May County, NJ









































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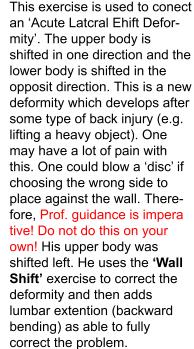
Lift legs up so your hips are flexed to 90 degrees. Pull cord-down; hallow abdomen - pull in and upward; flatten low backinto the table while tilting pelvis backward. Hold x 5 seconds x 10 reps.





















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PRINCETON UNIVERSITY Athletic Medicine

Lumbar/Core Strength and Stability Exercises

## FYZICAL Therapy & Balance Center in N. Cape May - Best Physical Therapy and Rehab Center in Cape May County, NJ

#### **FLEXIBILITY**

A lack of flexibility through the hips (hamstring, hip flexors, gluteus muscles) can contribute to low back pain, therefore it is important to work on this if you are experiencing back pain. Please make sure all stretches are "pain free". If you feel discomfort, you may not be ready to do that specific stretch.

#### 1 - Quadriceps Stretch

Using a towel, or band, lie on your stomach, attach the band to affected foot and pull your heel to your butt. Hold this stretch for 1 min.

#### 2 - Hip Flexor Stretch

Kneel with affected knee on the ground, same side arm goes back causing pelvis (hips) to shift forward, and back to extend. Hold for 20-30 sec. Repeat 3 times.



#### 3 - Adductor Stretch

Prop the inside of your ankle up on the table. lean into the side you are stretching. Hold for 20-30 sec. Repeat 3 times.



#### 4 - Hamstring Stretch

Prop the back of your heel up on the table, keep your back straight, and lean forward at the hips. Hold for 20-30 sec. Repeat 3 times.



### 5 - Dynamic Hamstring Stretch

Lie on your back, reach hands behind your knee, keep knee at 90 degree angle, and kick up until you feel stretch. Repeat 15-20 each side.





#### 6 - Sidelying ITBand Stretch

Lie on your side, use a towel, or band and pull foot back as if stretching quadriceps, use opposite foot to push down on distal part of leg Hold this stretch for 1 min. Repeat as needed.





#### 7 - C Stretch for ITBand

In standing, place affected leg behind the good leg, and lean away. Hold for 20-30 sec. Repeat 3 times





#### 8 - Glute Stretch

Prop the outside of your ankle up on a table, make sure leg is at 90 degrees, keep your back straight, and lean forward at the hips. Hold for 20-30 sec. Repeat 3 times.



#### 9 - Prayer - Cat - Camel

Start on all fours. Prayer: Exhale as you sit back into heels, lower head, tuck chin and reach arms out. Cat: Inhale as you arch the back up and hollow out abdominals while head remains tucked. Camel: Exhale and lower abdominal and reach chin towards ceiling, Tuck chin and sit back into Prayer position. Repeat 5 times.







#### STRENGTHENING EXERCISES **EASY LEVEL**

#### Supine hip twist on physioball

Lie on your back on floor with hips and knees bent to 90 degrees over a physioball; draw in abdominal muscles and maintain throughout exercise; slow and with control, rotate knees to one side keeping hips in contact with the floor; engage obliques to pull knees back to center and repeat on opposite side. Repeat 10-20 times on each side.





#### Supine Abdominal Draw In

Lie on your back on a table or mat, knees up with feet flat on table/mat; put the abs in and push your low back to the table. Repeat 20 times.



#### Abdominal Draw in with Knee to Chest

Lie on your back on a table or mat, draw one knee to the chest while maintaining the abdominal draw in; do not grab the knee with your hand. Repeat 10-20 times each leg



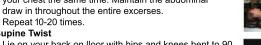
#### Abdominal Draw in with Heel Side

Lie on your back on a table or mat, draw the heel back towards the buttock while maintaining the abdominal draw in. Maintain as you return to the start position. Repeat 10-20 times each leg.



#### Abdominal Draw in with Double Knee to Chest

Lie on your back on table or mat, bring both knees to your chest the same time. Maintain the abdominal draw in throughout the entire excerses





#### Supine Twist

Lie on your back on lloor with hips and knees bent to 90 degrees with feet flat on floor; draw in abdominal muscles and maintain throughout excersise; slowly and with control,rotate knees to one side keeping hips in contact with the floor; engage obliques to pull knees back to cent and repeat on opposite side. Repeat 10-20 times.



#### Prone Bridging on Elbows

Lie on your stomach on a table or mat with your forearms/elbows on the table; rise up so that you are resting on forearms and toes; maintain abdominal draw in your back should be completely straight; hold this position



for 15 sec - 1 min. Progress in increcements of 15 sec. Repeat 5-10 times.

#### Side Bridging on Elbow

Lie on your side with your elbow underneath; rise up so that you are resting one forearm/elbow and foot on same side; hold this position for 15 sec. - 1 min. Progress in increments of 15 sec. Repeat 5-10 times. Make sure to complete excercise on both side.



Lie on your stomach on table or mat with legs extended and hands palm down just above shoulders; retract shoulder blades down and in towards

the midline of your spine; maintaining that position, lift your chest off the floor; hold for 3-5 sec keeping the back of the neck long and making sure front hip bones stay in contact with mat during entire movement. Repeat 10-20 times





Lie on your stomach on a table/ mat with your arms at your side; lift your head and chest off the table/mat; hold your glutes (buttock muscles) tight and squeeze your shoulder blades together; hold briefly and return to starting position. Repeat 10-20 times.





#### Superman's

Lie on your stomach on table/mat with arms an dlegs extended; retract shoulder blades down and in towards the midline of your spine and draw in abdonimal muscles; maintaining this position, lift opposite arm and opposit leg ensuring that your hips stay in contact with the floor; hold for 3-5 sec and reverse sides. Repeat 10-20 times







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#### STRENGTHENING EXERCISES **EASY LEVEL (CONTINUE)**

#### Quadruped Opposite arm/leg

In a quadruped position (on all fours) keep head straight with knees bent to 90 degrees. Engage your core to keep back straight during entire exercise and use your hamsrtings, glutes, and low back muscles to

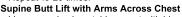




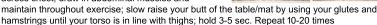
lift your leg straight while simultaneously lifting opposite arm. Repeat 10 times each side

#### Supine Butt Lift with Arms at Side

Lie on your back on table or mat with hips and knees bent to 90 degrees with feet flat on floor and arms palm-down at sides; draw in abdominal muscles and maintain throughout exercise; slow raise your butt of the table/mat by using your glutes and hamstrings until your torso is in line with thighs; hold 3-5 sec. Repeat 10-20 times



Lie on your back on table or mat with hips and knees bent to 90 degrees with feet flat on floor and arms across chest: draw in abdominal muscles and



#### Supine Single Leg Butt Lift

Lie on your back on table or mat with hips and knees bent to 90 degrees with feet flat on floor and arms palm-down at sides; draw in abdominal muscles and maintain throughout exercise; lift one leg so that thigh is perpendicular to the floor and knee is bent to 90 degrees; slowly raise your butt off the table/mat by using your glutes and hamstrings until your torso is in line with thigh; hold for 3-5 sec. Repeat 10-20 times on each leg.



#### Supine Single Leg Marching

Lie on your back on table or mat with hips and knees bent to 90 degrees with feet flat on floor and arms palm-down at sides; draw in abdominal muscles and maintain throughout exercise; slow raise your butt of the table by using your glutes and hamstrings until your torso is in line with thighs; alternate raising right leg followed by left leg off table/mat into hip flexion while maintaining proper alignment. Repeat 10-20 times each side.



#### Abdominal Draw in, Seated on Physioball

Begin by sitting on Physioball with your spine straight, knees at 90 degrees and your hands on your hips. Your feet should be shoulder width apart; draw in abdominal muscles and maintain this position for 3-5 sec. Repeat 10-20 times.



#### Abdominal Draw in, Seated on Physioball, Add Marching

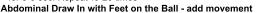
Begin by sitting on Physioball with your spine straight, knees at 90 degrees and your hands on your hips. Your feet should be shoulder width apart; draw in abdominal muscles and maintain this position throughout exercise. Begin by slowly raising your right knee into hip flexion anf hold for 3-5 sec. keeping hip level than bring knee down to starting position; repeat on opposite side. Repeat 10-20 times.



#### MEDIUM LEVEL

#### Abdominal Draw In with Feet on the Ball

Lie on your back on table/mat with hips and knees bent to 45 degrees and your feet flat on the medicine ball; draw in abdominal muscles and maintain throughout exercise; hold for 3-5 sec. Repeat 10-20 times



Start as above. As you tilt your hips back raise your butt about 2-3 inches maximum off the floor. Hold this position 3-5 sec.; slowly bring your butt back to start. Repeat 10-20 times.

floor; contact abdominal muscles to bring arms and legs back to startying position; repeat on

#### Supine Dead Bugs

Lie on your bag on table/mat with arms perpendicular to floor and hips and knees bent to 90 degrees; draw in abdominal muscles and mauntain throughout exercise; extend one arm above head while simultaneously lowering the opposite foot to the

opposite side. Repeat 10-20 times.







#### Rolling Like a Ball

In a tuckled position draww in abdonimal muscle maintain balance; Hold for 1-2 sec. than roll on to your shoulder blades,



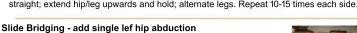




and back into starting position. Repeat 10-20 times

#### Prone Bridging on Elbows with Single Leg Hip Extention

Lie on your stomach on a table/mat with your forearms/elbows on the table/mat; rise up so that your are resting on your forearms and toes; maintain abdominal draw in; your back should be completely straight; extend hip/leg upwards and hold; alternate legs. Repeat 10-15 times each



Lie on your side with your elbow underneath you; rise up so that you are resting on your one forearm/elbow and your foot; hold this position while lifting your hip/leg at your side. Lift leg up and down 15-20 times each side.



#### Quadruped Opposite Arm/Leg, add cuff or dumbbell weights

Start in a quadruped position (on all Fours), head straight with knees bent to 90 degrees and hands on the mat. Make sure you add a cuff weight to your ankle, and/or hold a small dumbbell weight in opposite hand for progression. Tighten your





hamstrings, glutes, and low back and lift to straighten your leg and opposite arm while maintaining proper alignment. Repeat 10-20 times alternating sides.

#### Abdominal Crunches on Physioball

Start by having your hips just off the Physioball. Keep your feet about shoulder width apart and place your hands across your chest. Draw in abdominal muscles and maintain, crunch forward





and lift your shoulder blades of the ball. Hold at the top for 1-2 sec. and lower back down to starting position. Repeat 10-20 times.

#### Abdominal Crunches on Physioball with Rotation

Start by having your hips just off the Physioball Keep your feet about shoulder width apart and place your hands across your chest. Draw in abdominal muscles and maintain, crunch forward





and lift your shoulder blades of the ball. As you get half way up twist your body to one side. Hold 1-2 sec. at the top and as you uncurl your lower back down to starting position; alternate sides. Repeat 10-20 times.

#### Bridging with Head on Physioball

Shoulder blades are aligned at the top and middle of the ball with arm across chest. Your feet are placed on the ground shoulder width apart and your thighs should be parallele with the ground. Draw in abdominal muscles; engage glutes and hamstrings to maintain



straight linefrom neck to knees. Hold this position for 3-5 sec. then slowly relax and repeat 10-20 times.

#### Supine Bridging on Physioball

Lie facing upward on floor with knees straight, feet resting on physioball; arms at sides; draw in abdominal muscles and maintain throughout exercise; slowly lift your butt off floor until trunk is parellel to thighs; hold for 3-5 sec.; slowly return to starting position. Repeat 10-20 times.





#### Abdominal Draw In, Seated Physioball with Leg Extention

Begin by sitting on Physioball with your spine straight, knees at 90 degrees and your hands on your hips. Your feet should be shoulder width apart, draw in abdominal muscles and maintain this position throughout the exercise. Begin by slightly lifting your right or left





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# STRENGTHENING EXERCISES DIFFICULT LEVEL

#### Prone Bridging - "around the world"

Lie on your stomach on table or mat with your forearms on the table/mat; rise up so that you are resting on your forearms and toes; maintain abdominal draw in; your back should be completely straight; hold this position while stepping to side with lft leg/toe, followed by right leg/ttoe, left arm/hand, and right arm/hand.

Repeat entire sequence 3-5 times.



# Side Bridging - add single leg/hip abduction with hip flexion/extension movement Lie on your side with your elbow underneath you; rise up so that you are resting on one of your forearm/elbow and your foot; maintain this while lifting your top leg and kicking it forward and back. Repeat 5-10 times. Switch sides.





#### Quadruped Opposite arm/leg on "half foam rollers"

Lie facing down in quadruped position (on all fours), head straight with knees bent to 90 degrees and hands on the half foam rollers. Tighten your hamstrings, glutes, and low back and lift your leg to straighten it along with opposite arm. Repeat 10 times each side.





#### Seated Russian Twist with Medicine Ball

In a seated V position on a table or mat with a medicine ball in your hands, twist your body to one side and then the other while maintain V position. Repeat 10-20 times.







#### Seated on Physioball, Russian Twist with Medicine Ball

Seated on Physioball with feet planted; hold medicine ball out in front of you; maintain abdominal draw in while twisting your body side to side. Repeat 10-20 times.







#### **Bridging with Head on Physioball**

Position shoulder blades on physioball with hands on hips; extend hips until parallel to ground by engaging glutes, hamstrings, and core. Lift one foot off the ground and extend leg while keeping hips level; Alternate legs. Repeat 10-20 times



