

Injury Prevention Program for Dancers

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Angelina Vera, MD Website: AngelinaVeraMD.com Dear Dancer,

This booklet is a detailed explanation of the injury prevention program for dancers. Below each exercise description is additional information on how to advance the difficulty of each exercise to further challenge yourself. You can watch videos of how to properly perform the exercises at AngelinaVeraMD.com. The program is divided by day. Each day should take about 30 minutes to perform once you are familiar with the exercises. The exercises can be done all together or you can break them up and perform them at different times of the day. There are only three days of exercises per week. Please feel free to schedule them in a way that is convenient for you and will ensure you complete all three days each week. A suggested schedule would be to perform Day 1 on Monday, Day 2 on Wednesday, and Day 3 on Friday.

If you perform this program on a regular basis as laid out in this booklet, you may experience fewer injuries and notice a difference in your strength and control *without* adversely affecting your line.

Sincerely,

Angelina Vera, MD

Injury prevention Program

The goal for all these exercises is to maintain a stable and level pelvis and engaged core. Work in front of a mirror if possible, to ensure proper form. As exercises become less challenging, advance them as indicated below.

You may also visit AngelinaVeraMD.com page for videos on how to correctly perform the following exercises.

Day 1 – Abductors/Core/Foot & Ankle: (~30min)

Fire Hydrants: On your hands and knees lift the right leg directly out to the side without rotating your pelvis and return to the starting position. Perform 15 lifts keeping the knee pointing forward, core engaged and pelvis stable. Repeat on the left. Perform a total of 3 sets on each side, alternating sides. (4min)

• Advance by adding a resistance band around the knees.

<u>Side Plank Clam</u>: Laying on your right side support your body with your right elbow and forearm and right knee. Lift your pelvis off the floor and maintain a straight line between your right shoulder and right knee. Lift the left knee out to the side keeping your hips stacked directly on top of each other and your core engaged. Perform 15 repetitions and switch sides. Complete 3 sets each side, alternating sides. (3min)

• Advance by adding a resistance band around the knees.

Side Step with Resistance-Band: Stand in parallel with your feet together and place a resistance band around your ankles. Keep your knees over your toes and take a wide side step with the right leg maintaining the parallel position. Slowly allow the left leg to meet the right. Maintain an upright posture with the core engaged. Repeat for a total of 15 repetitions. Switch sides for a total of 3 sets per side. (5min)

• Advance by increasing the strength of the resistance band.



Fire Hydrant



Side Plank Clam





Side Step with Resistance-Band

<u>Side Plank</u>: Laying on your right side support your body with your right elbow and forearm and your right foot. Lift your pelvis and legs off the floor and maintain a straight line from head to toe. Ensure your shoulders and hips are stacked directly on top of one another and engage your core. Hold this position for 30 seconds. Rest for 30seconds. Repeat for a total of 2 sets on each side. (6min)

• Advance by increasing the hold time by 15 second intervals until you can hold for 90 seconds.

Resistance Band Toe Pointes (eccentric focus): While sitting, place a resistance band around your toes and hold the ends with your hands. Roll through the foot to a demi pointe position. Pointe the toes and **slowly** allow just the toes to flex returning to a demi point position. Repeat for a total of 30 repetitions. Alternate sides for a total of 3 sets on each side. (3min)

• Advance by increasing the resistance of the band.

Star Drill: Set up 5 objects in the shape of a large star. Designate a number to each object, 1-5, so that the numbers are not next to each other (ie. the consecutive number is diagonal to the previous number, see diagram). Start at object 1 and perform a right turn of your choice (ie. soutenu, pique, pirouette, etc) then advance to object 2 performing a traveling movement of your choice leading with your right leg (ie. chaînés, chassé, jeté, etc.). At object two perform another turn then advance to object 3 performing a different traveling movement. Continue through the star until you reach object 5. At that point repeat the pattern reversing the order, so start with a turn at object 5 and advance to object 4, then 3, and so on. When you return to object 1, start the entire exercise over leading with the left leg. Complete two sets on each side. Try to make the transitions seamless and quickly. Focus on good technique and keeping your core engaged. (5MIN)



Side Plank



Resistance Band Toe Pointes



<u>Heel Stretch</u>: Use an incline board or step to allow the heel to fall towards the floor stretching the Achilles tendon and calf muscle. Hold the stretch on the right for 15 seconds and switch to the left leg for 15 seconds for a total of 3 sets each leg. (2MIN)



IT Band Stretch: While standing, cross the left leg behind the right and lean your upper body to the left. This will stretch the outside of the right hip. Hold the stretch on the right for 15 seconds and switch to the left leg for 15 seconds for a total of 3 sets each leg. (2min)



Day 2 - Ham/Glute/Core/ Foot & Ankle: (~30min)

Nordic Hamstring: Sit on your knees, stabilize your feet, and hold your arms across your chest. Slowly allow your body to lean forward. Maintain a straight line from your shoulders to your knees the entire time. When you get to a point you can no longer hold your body up extend your arms and slowly fall into a push up position. Your goal is to be able to control your body all the way to the floor. Repeat for a total of 10 repetitions. Rest for 30-60seconds and repeat for a total of 3 sets. (4min)

- Advance by increasing by 2 repetitions per set.
- Advance further by holding a weight in your arms.

Bird Dog (opposite arm/leg lift): On your hands and knees extend your right arm in front of you and left leg behind you, slowly return to the starting position. Keep your core engaged and your pelvis parallel to the floor. Perform 20 repetitions. Switch sides. Alternate sides to complete a total of 3 sets on each side. (4min)

• Advance using a weight in your hand and a resistance band on the legs

Double Leg Bridge: Laying on your back place your feet on the floor with your knees directly above your heels. Hold a weighted ball between your knees. Lift your pelvis off the floor to make a straight line from your shoulders to your knees. Engage your core and glutes and keep your pelvis level, hold, and slowly return to the starting position. Perform 15 repetitions. Repeat for a total of 3 sets. (2min)

- Advance to <u>Single Leg Bridge</u>: Without the weighted ball, use the same instructions as the double-leg bridge, but extend one leg so the foot comes off the floor. The thighs should remain parallel to one another. Engage your core and glutes and keep your pelvis level, hold, and slowly return to the starting position. Perform 15 repetitions. Then repeat with the other leg. Alternate sides to perform a total of 2-3 sets per side.
- Advance to <u>Stability Ball Double Leg Bridge</u>—place both heels on a stability ball. Lift your pelvis off the floor to make a straight line from your shoulders to your heels. Engage your core, keep pelvis level, hold for 30 seconds, and slowly return to the starting position. Repeat for a total of 3 sets.
- Advance to <u>Stability Ball Single Leg Bridge</u> Perform as the stability ball double leg bridge, but lift one leg off the stability ball. Engage your core, keep your pelvis level, and hold for 30seconds. Rest, then repeat with the other leg. Perform a total of 2-3 sets per side.



Nordic Hamstring



Bird Dog





Stability Ball Double Leg Bridge





Stability Ball Single Leg Bridge

Prone Leg Lift: The key to this exercise is **keeping both hip bones pressed into the floor for the entire duration**. Lying on your belly, engage your core and keep both hip bones on the floor, lift the right leg off the floor about 6inches. Keep the leg parallel so the heel is directed toward the ceiling. Hold for 5 seconds then release. Perform 10 repetitions. Repeat on the left for a total of 3 sets with each leg. (6 min)

- Advance by performing 5 pulses instead of a 5 second hold for each repetition.
- Advance further by *adding a resistance band* around the ankles
- Advance further by placing a *stability ball* under the feet. Place both hands on the floor and extend your legs behind you and place them on a stability ball so you are in a planklike position. Maintain a straight line with your body from your shoulders to your heels. Keep your pelvis level and core engaged. Lift one leg off the ball about 6inches without rotating your pelvis. Keep the leg straight and parallel so the heel is directed toward the ceiling. Hold for 5 seconds then release. Perform 10 repetitions. Repeat on the left for a total of 3 sets with each leg.

Glute Kicks: On your hands and knees, lift one leg so the thigh is parallel to the floor. The bend the knee to 90° and keep the thighs parallel with the heel directed toward the ceiling. Keep your pelvis level and your core engaged. Lift the heel to the ceiling, hold, and return to the starting position. Perform 10 repetitions. Switch to the other leg. Alternate sides for a total of 3 sets on each side. (4min)

- Advance by increasing the number of repetitions by 5 each set until you reach 20 repetitions per set.
- Advance by adding a resistance band around the ankles/feet. Advance the repetitions as above.



Prone Leg Lift



Prone Leg Lift with Resistance Band



Glute Kicks



Resistance Band Pointed Eversion (eccentric focus): Wrap the resistance band around the ball of your right foot and hold the ends in your left hand. Place your left foot on the band to create resistance for your right foot. Pointe your right foot and "wing" it as much as possible. **Slowly** allow it to come into a sickled position. Quickly wing your foot again and repeat for a total of 10 repetitions. Switch sides. Alternate feet for a total of 3 sets on each side. (3min)

- Advance by adding 5 repetitions to each set until you reach 20 repetitions per set
- Advance further by increasing resistance band strength.

Plank: Lying face down on the floor prop yourself up on your toes and forearms. Keep your shoulders above your elbows. Engage your core and keep your pelvis level. Make a straight line with your body from your head through your heel, like a wood plank. Hold this position for 45 seconds. Take a 30second break. Repeat for a total of 4 sets. (3-5min)

- Advance by increasing the hold time to 60 seconds with a 30 second break for a total of 3 sets.
- Advance further by increasing the hold time to 75 seconds with a 30 second break for a total of 2 sets.
- Advance further by increasing the hold time to 90 seconds with a 30 second break for a total of 2 sets.
- Continue increasing hold time by 15 seconds until you can hold the plank for 3 minutes

Hamstring Stretch: While sitting on the floor, bend forward at the hips and grab your ankles/toes and lower your elbows to the floor. Flex the feet and elongate your spine as much as possible. Hold for 15-30 seconds. Complete 2 sets.



Quick Slow

Resistance Band Pointed Eversion







Hamstring Stretch

Day 3 – Quad/ Proprioception: (~30min)

Progressive Lunges: Stand with feet parallel and hands on your hips. Engage your core and keep your pelvis level throughout the exercise. With your right leg, lunge forward slowly until your leg forms a 90° angle at the knee. Bring your back leg to meet the front leg. Repeat with the left leg. Lunge forward with the right leg again but add 2 pulses when you get to the bottom of the lunge. Bring your back leg to meet the front leg. Repeat with the left leg. Lunge forward with the right leg again but pulse 3 times at the bottom of the lunge. Bring your back leg to meet the front leg. Continue in the same manner increasing the pulses by one on each side until you reach 10 pulses. Rest. Repeat the entire progression for a total of 2 sets. (4min)

- Advance by increasing the number of sets
- Advance further by holding weights in your hands
- Advance further by increasing weight

<u>Wall Sits</u>: Stand with your feet hip width apart in a parallel position with your back against a vertical wall. Walk your feet away from the wall as your back slides down the wall and your legs form a 90° angle at the hips and knees. Engage your core by attempting to flatten your lower back against the wall. Hold this position for 30 seconds. Straighten up and break for 30 seconds. Repeat 3 times. (3min)

- Advance by increasing your hold time to 45 seconds for 3 sets.
- Advance further by holding for 60 seconds for 2 sets.





Progressive Lunges



Wall Sits

Decline squats: Stand on an incline board in parallel position and hands on your hips. Engage your core and keep your pelvis level throughout the exercise. Keep your chest upright, ensure your knee stays in line with your toes, and keep your weight in your heel so you can freely move your toes. Slowly bend your legs until they create an approximately 60° angle at the knee. As you straighten back up, focus on contracting your glutes. Repeat for a total of 10 repetitions. Repeat to complete 3 sets. (3min)

- Advance by performing <u>Single Leg Decline Squats</u>: The exercise is the same as above only with one leg lifted off the board, hence standing on one leg. Repeat for a total of 10 repetitions. Alternate sides to complete 3 sets on each leg.
- Advance further by switching to
 <u>Eccentric Box Jumps</u>: Place a stable elevated surface
 (plyometric box or aerobic step) ~6in in front of you. Place
 your feet in a parallel position hip width apart. It is
 important that you keep your knees over your toes and
 keep your spine lengthened and core engaged without
 collapsing in the chest. Bend your knees and jump up onto
 the box with both feet. Straighten your knees, hips and back
 to complete the upward portion. Then slowly jump forward
 off the other side of the box and land softly through the
 feet, keeping the arches lifted, in first position. Turn
 around and repeat.
 - Start with a 6-12inch box and 5 jumps. Increase by 2 jumps until 10 repetitions are not challenging enough. Progress to 10reps x 2 sets, then 10 reps x3 sets. When that has become comfortable increase the size of the box.





Decline Squats



Eccentric Box Jumps

<u>Step-Downs</u>: Stand on a step or other elevated stable surface (start with something ~6-8inches high). Stand on one leg with your toe at the edge of the step and the other leg extended over the edge of the step. Keep your core engaged, chest lifted, pelvis level and standing knee over your toes. Slowly bend the standing leg until the extended leg touches the floor below the step. Straighten your standing leg and repeat for a total of 10 repetitions. Alternate legs to complete a total of 3 sets on both sides. (3min)

• Advance by increasing the height of the step.

Single Leg Stance: Begin on a stable surface. Place a penny under your big toe and the end of a pen under the arch of your foot. Engage your core and glutes and maintain a level pelvis. Maintain proper ballet posture. With feet parallel stand on one foot and <u>close your eyes</u>. Hold for 30 seconds. Your standing toe should hold the penny to the floor. Keep the arch of your standing foot lifted; it should not touch the pen. Switch to the other leg. Alternate legs and complete a total of 3 sets on each leg. (4min)

- Advance by adding a port-de-bra sequence of your choice
- Advance by standing in a doorway extend your arms in front of you and rotate your upper body so your hands touch the doorway then rotate back to the other side.
- Advance by performing the single leg stance in a turned-out position
- Advance further by adding adage, rond de jambe en l'air or frappé combinations with the lifted leg.
- Advance further by performing the single leg stance en relevé with eyes open then eyes closed, and start the advancement protocol as above.
- Advance to a flat footed stance on a foam pad or Bosu ball and advance as above.





Step-Downs



Single Leg Stance

Resistance Band Foot Flexion (eccentric focus): Loop a resistance band around a table leg or some other stable surface. Loop the other end over the top of your flexed foot. Create tension in the band by moving away from its fixed point. From the fully flexed position, **slowly** allow the foot to come to a demi pointe position. Flex the foot quickly and repeat the slow release to demi point. Perform a total of 10 repetitions. Switch to the other foot and repeat. Alternate feet to complete a total of 3 sets per foot. (3min)

- Advance by adding 5 repetitions to each set until you reach 20 repetitions per set
- Advance further by increasing the resistance band strength.

Dead Bug: Laying on your back lift your legs so your hips and knees are at 90° angles. Lift your arms straight to the ceiling. Engage your core by flattening your lower back onto the floor. Your lower back should be in contact with the floor through the entire exercise. Keep your pelvis level. Allow your right arm to slowly fall backward until it reaches the side of your head. Simultaneously, straighten and lower your left leg to about 2 inches off the floor. Return to the starting position and perform the same movement with the left arm and right leg. Repeat for a total of 20 repetitions. Rest and complete a total of 2 sets (2min)

- Advance by completing 3 sets
- Advance further by adding a weighted ball to your hand while performing the exercise.

Quad Stretch: While in a lunge position, grasp the right leg behind you at the ankle with the right hand, press the hips forward while pulling the foot closer to your glutes, and hold the stretch for 15 seconds. Switch sides. Repeat for a total of 3 sets per side.



Resistance Band Foot Flexion



