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# **Exercise recommendations**





# **Joint Pain**

These can be great rehabilitation exercises when there is NO joint instability present:

## **Knee Pain**

## **Knee Flossing**

Frequency: 3-5 reps, 3-5 days a week

Purpose: Strengthen and help with generalized pain

**Needed equipment:** 







### **Deadmill**

Frequency: 5-10 minutes, 3-5 days a week

Purpose: Simulates sled pull

Instructions: Perform with the treadmill turned off





# **Exercise recommendations**



# **Knee Pain 4 Knee ROM (Range of Motion) Exercises**



#### **Heel Slides**

**Purpose:** Heel slides are a gentle way to increase knee flexibility by gradually extending and flexing the joint.

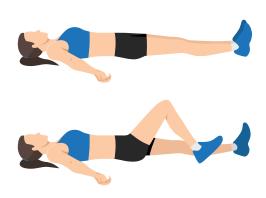
#### How to perform:

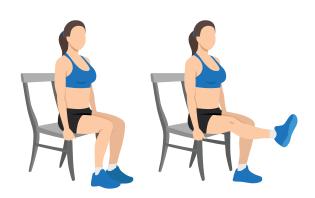
**Step 1:** Lie on your back with your legs straight.

**Step 2:** Slowly slide one heel toward your buttocks, bending your knee as far as you comfortably can.

**Step 3:** Hold the position for a few seconds, then slowly slide the heel back to the starting position.

Step 4: Repeat 10-15 times on each leg.







#### Seated Knee Flexion/Extension

**Purpose:** This exercise improves both knee flexion and extension in a seated position, making it comfortable for beginners or post-op patients.

#### How to perform:

**Step 1:** Sit on a chair with your feet flat on the floor.

**Step 2:** Slowly slide one foot back under the chair as far as possible to bend your knee, then hold for 5 seconds.

**Step 3:** Return your foot to the starting position and extend your leg straight out in front of you, straightening the knee as much as possible.

**Step 4:** Hold the extended position for 5 seconds, then return to the starting position.

**Step 5:** Repeat 10-15 times on each leg.



# **Knee Pain 4 Knee ROM (Range of Motion) Exercises**



### Passive Knee Extension (Towel Under Heel)

**Purpose:** This exercise focuses on improving knee extension by using gravity to gently stretch the knee.

### How to perform:

Step 1: Lie on your back with your legs straight.

**Step 2:** Place a rolled-up towel under your ankle or heel, allowing the knee to straighten as much as possible.

**Step 3:** Relax and let gravity do the work, holding the position for 2-3 minutes.

**Step 4:** Gradually increase the stretch over time by adjusting the height of the towel.







#### **Prone Knee Flexion**

**Purpose:** This exercise targets knee flexion while lying on your stomach.

### How to perform:

Step 1: Lie on your stomach with your legs straight.

**Step 2:** Slowly bend one knee, bringing your heel toward your buttocks as far as you can.

**Step 3:** Hold the position for 5-10 seconds, then slowly lower the leg back down.

Step 4: Repeat 10-15 times on each leg.



### **Ankle Pain**

### **Ankle Flossing**

Frequency: 3-5 reps, 3-5 days a week

Purpose: Strengthen and help with generalized pain

**Needed equipment:** 







# 8 Ankle ROM (Range of Motion) Exercises

## **Tips**

Move Slowly: Focus on controlled movements to maximize flexibility and avoid injury.

Be Consistent: Perform these exercises regularly for the best results, especially if recovering from an injury.

Warm Up: Gentle movements before starting the exercises help to loosen up the joints and muscles.

Listen to Your Body: If you feel pain (beyond a normal stretch), stop and reassess your form or reduce intensity.



## **Ankle Pumps**

**Purpose:** This is a basic exercise to increase ankle dorsiflexion (toes up) and plantarflexion (toes down) movements.

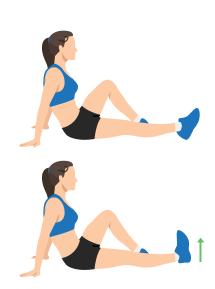
#### How to perform:

**Step 1:** Sit or lie down with your legs extended in front of you.

**Step 2:** Point your toes away from you (plantarflexion) as far as possible.

**Step 3:** Slowly pull your toes toward you (dorsiflexion), flexing the ankle joint.

Step 4: Perform 10-15 reps in each direction.





# Ankle Pain 8 Ankle ROM (Range of Motion) Exercises



#### **Ankle Circles**

**Purpose:** Ankle circles help increase mobility in all directions by targeting the full range of motion.

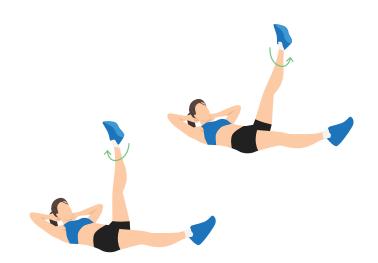
#### How to perform:

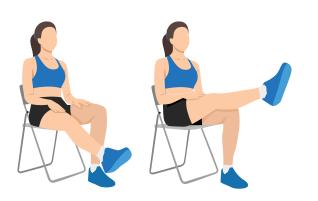
**Step 1:** Sit or lie with your legs extended, or perform this exercise while seated in a chair.

**Step 2:** Slowly rotate your foot in a clockwise direction, making as large a circle as possible.

**Step 3:** Do 10-15 circles, then repeat in a counterclockwise direction.

Step 4: Perform 2-3 sets on each ankle.







## **Ankle Writing**

**Purpose:** This exercise uses the foot to "draw" the alphabet, working the ankle through a wide range of motion in multiple directions.

#### How to perform:

**Step 1:** Sit with your legs extended, or perform this while seated on a chair.

**Step 2:** Lift one foot off the ground and, using your toes, "write" the letters of the alphabet in the air.

**Step 3:** Focus on making each letter large to fully engage the ankle joint.

**Step 4:** Repeat the alphabet once or twice on each foot.

# **Exercise recommendations**



# Ankle Pain 8 Ankle ROM (Range of Motion) Exercises



### Towel Stretch for Ankle Dorsiflexion

**Purpose:** This is a passive stretch that focuses on improving ankle dorsiflexion.

#### How to perform:

**Step 1:** Sit on the floor with your legs extended.

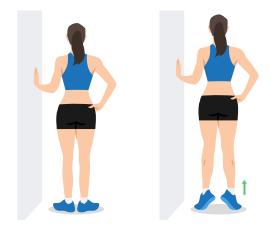
**Step 2:** Loop a towel or resistance band around the ball of your foot.

**Step 3:** Gently pull the ends of the towel toward you, pulling your toes and foot back toward your shin.

Step 4: Hold the stretch for 20-30 seconds, then relax.

Step 5: Repeat 3 times on each leg.







### **Heel Raises**

**Purpose:** Heel raises help improve ankle plantarflexion strength by engaging the calf muscles.

#### How to perform:

**Step 1:** Stand with your feet shoulder-width apart, near a wall or sturdy surface for support.

**Step 2:** Slowly lift your heels off the ground, rising onto the balls of your feet.

**Step 3:** Hold for a second, then slowly lower your heels back down.

Step 4: Perform 2-3 sets of 10-15 reps.



# Ankle Pain 8 Ankle ROM (Range of Motion) Exercises



#### **Toe Raises**

**Purpose:** This exercise helps improve dorsiflexion by lifting the toes and engaging the muscles along the front of the shin.

#### How to perform:

**Step 1:** Stand with your feet flat on the floor and your back against a wall for balance.

**Step 2:** Slowly lift your toes off the ground, keeping your heels planted.

**Step 3:** Hold for a second, then lower your toes back down.

Step 4: Perform 2-3 sets of 10-15 reps.









### **Ankle Inversion and Eversion**

**Purpose:** These exercises target the ankle's side-to-side motion, which is important for lateral movements.

#### How to perform:

**Step 1:** Sit or stand with your legs extended and feet off the ground.

**Step 2:** For inversion: Turn your foot inward (so the sole faces the opposite leg), hold for a second, then return to neutral

**Step 3:** For eversion: Turn your foot outward (so the sole faces away from your body), hold for a second, then return to neutral.

Step 4: Perform 10-15 reps in each direction for both feet.



# **Ankle Pain** 8 Ankle ROM (Range of Motion) Exercises



#### **Resistance Band Ankle Movements**

**Purpose:** Using a resistance band provides added tension, increasing the challenge and improving ankle strength.

#### How to perform:

**Step 1:** Attach a resistance band to a sturdy object or hold one end in your hand while looping the other around your foot.

**Step 2:** Perform the following movements against the band's resistance:

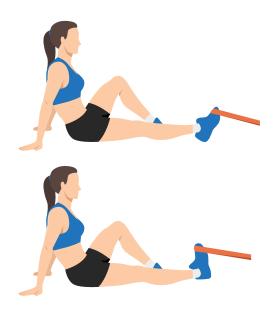
Step 3: Dorsiflexion: Pull your toes toward you.

Step 4: Plantarflexion: Point your toes away from you.

**Step 5:** Inversion: Turn your foot inward.

**Step 6:** Eversion: Turn your foot outward.

**Step 7:** Perform 10-15 reps of each movement for both ankles.



# **Exercise recommendations**



# **Hip Pain**

# 10 Hip ROM (Range of Motion) Exercises



### **Hip Circles**

**Purpose:** This exercise mobilizes the hip joint in all directions.

#### How to perform:

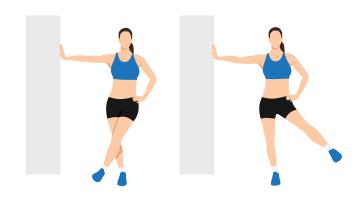
**Step 1:** Stand on one leg, using a chair or wall for balance if needed.

**Step 2:** Lift the opposite leg slightly off the ground with the knee bent.

**Step 3:** Slowly make small circles with your knee, focusing on using your hip to control the movement.

**Step 4:** Perform 10 circles in each direction (clockwise and counterclockwise).

Step 5: Switch legs and repeat.





2

## **Hip Flexor Stretch (Lunge Position)**

**Purpose:** This stretch targets the hip flexors, which can become tight due to prolonged sitting.

#### How to perform:

**Step 1:** Kneel on your right knee with your left foot in front, creating a 90-degree angle at both knees.

**Step 2:** Shift your hips forward slightly while keeping your torso upright to stretch the right hip flexor.

Step 3: Hold for 20-30 seconds, then switch sides.

# **Exercise recommendations**



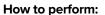
# **Hip Pain**

# 10 Hip ROM (Range of Motion) Exercises



# Seated Hip External Rotation Stretch (90/90 Stretch)

**Purpose:** This stretch increases external rotation of the hip, which is important for movements like squatting and lateral movements. Improves external rotation in the hip. Increases flexibility in the glutes and hip rotators.



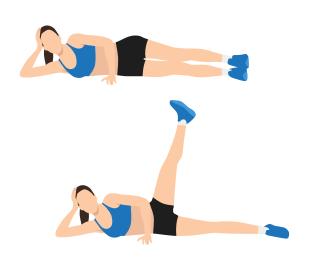
**Step 1:** Sit on the floor with your front leg bent at 90 degrees in front of you and the back leg bent at 90 degrees behind you.

Step 2: Keep your torso facing forward over the front leg.

**Step 3:** Gently lean forward over your front leg, maintaining a straight back.

Step 4: Hold for 20-30 seconds, then switch legs.







## Lying Hip Abduction

**Purpose:** This exercise strengthens the hip abductors (gluteus medius and minimus) while improving the range of motion.

#### How to perform:

**Step 1:** Lie on your side with your legs straight and stacked on top of each other.

**Step 2:** Lift the top leg upward toward the ceiling, keeping your foot flexed and your body aligned.

Step 3: Lower the leg back down with control.

Step 4: Perform 10-15 reps, then switch sides.



# Hip Pain 10 Hip ROM (Range of Motion) Exercises



## **Hip Internal Rotation Stretch**

**Purpose:** This stretch helps improve internal rotation, which is important for many functional movements like walking and running.

#### How to perform:

**Step 1:** Sit or lay on the floor with both knees bent and your feet flat on the ground.

**Step 2:** Slowly drop both knees to one side, trying to keep both buttocks on the floor.

**Step 3:** Hold for 20-30 seconds, then switch to the other side.







# 6

## **Standing Hip Flexion**

**Purpose:** This exercise helps improve hip flexion range of motion and strengthens the hip flexors.

### How to perform:

Step 1: Stand tall with your feet shoulder-width apart.

**Step 2:** Lift one knee up toward your chest while maintaining an upright posture.

**Step 3:** Lower the leg and repeat on the other side.

Step 4: Perform 10-15 reps per leg.



# **Hip Pain**

# 10 Hip ROM (Range of Motion) Exercises



### Pigeon Pose (Hip External Rotation Stretch)

**Purpose:** This yoga stretch helps improve external rotation and flexibility in the hip.

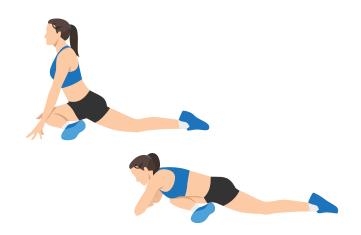
#### How to perform:

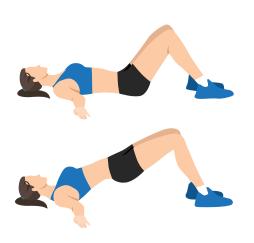
Step 1: Begin in a tabletop position (on hands and knees).

**Step 2:** Bring your right knee forward and place it behind your right wrist, extending your left leg straight back.

**Step 3:** Lower your body down over your right leg and hold for 20-30 seconds.

Step 4: Switch legs and repeat.







## **Hip Bridges**

**Purpose:** This exercise strengthens the glutes and hamstrings while promoting hip extension.

### How to perform:

**Step 1:** Lie on your back with your knees bent and feet flat on the floor.

**Step 2:** Press through your heels to lift your hips off the ground until your body forms a straight line from shoulders to knees.

**Step 3:** Lower back down with control.

Step 4: Perform 10-15 reps for 2-3 sets.



# **Hip Pain**

# 10 Hip ROM (Range of Motion) Exercises



## **Quadruped Hip Extensions (Donkey Kicks)**

**Purpose:** This exercise helps improve hip extension and strengthens the glutes.

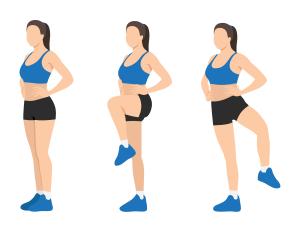
#### How to perform:

**Step 1:** Begin in a tabletop position with your hands and knees on the ground.

**Step 2:** Keep your knee bent at 90 degrees and lift one leg up toward the ceiling, squeezing your glutes.

Step 3: Lower back down and repeat for 10-15 reps on each side.







## Standing Hip CARs (Controlled Articular Rotations)

**Purpose:** Hip CARs are used to improve overall joint mobility by moving the hip through its full range of motion.

#### How to perform:

**Step 1:** Stand tall and hold onto a stable surface for balance.

**Step 2:** Lift one knee toward your chest, then rotate your leg outward (like opening a gate).

**Step 3:** Continue the motion by bringing your leg behind you and returning to the starting position.

**Step 4:** Perform 5-8 slow, controlled rotations in each direction, then switch legs.



## **Toe Pain**

# 9 Toe ROM (Range of Motion) Exercises

Tips: Can utilize silicone toe spacers between each digit for toe placement.

**Start Slowly:** If your toes feel stiff or weak, start with gentle movements and gradually increase the range of motion as your flexibility improves.

**Consistency:** Perform these exercises regularly, ideally every day, to maintain and improve toe mobility.

**Focus on Control:** Don't rush through the movements. Controlled, deliberate exercises will help activate the small muscles in your toes and feet more effectively.

**Use your hands if necessary:** For some of these exercises (like toe circles or stretches), it may be helpful to use your hands to guide the movement if your toes are particularly stiff.





#### Toe Flexion and Extension

#### How to perform:

**Step 1: Starting position -** Sit in a chair or on the floor with your feet flat on the ground.

**Step 2: Toe flexion -** Curl your toes downward as if trying to grip the floor with your toes. Hold the curled position for 3-5 seconds.

**Step 3: Toe extension -** Then, lift and spread your toes upward, extending them as far as you can. Hold the extended position for 3-5 seconds.

**Step 4: Repetitions -** Perform 10-15 reps of flexing and extending for each foot.



## **Toe Spread**

#### How to perform:

**Step 1: Starting position -** Sit or stand with your feet flat on the ground.

**Step 2: Exercise** - Spread your toes apart as wide as possible, keeping them straight and trying to separate them as much as you can. Hold for 3-5 seconds.

**Step 3: Repetitions** - Repeat 10-15 times on each foot. Focus on controlling the movement without letting the toes collapse inward.



### **Toe Pain**

# 9 Toe ROM (Range of Motion) Exercises



#### **Toe Circles**

#### How to perform:

**Step 1: Starting position -** Sit with one foot resting on the opposite knee, so you can easily reach your toes.

**Step 2: Exercise -** Using your hand, gently grasp your big toe and slowly rotate it in a circular motion, moving it clockwise for 5-10 circles and then counterclockwise for another 5-10 circles.

**Step 3: Repetitions -** Repeat this with each toe on both feet. This will help improve joint mobility in all the toes.



## Toe Grabs (Towel Scrunch)

#### How to perform:

**Step 1: Starting position -** Place a small towel or cloth on the floor in front of you while seated.

**Step 2: Exercise -** Use your toes to scrunch and grab the towel, pulling it toward you. Focus on engaging all your toes in the movement.

**Step 3: Repetitions -** Do this for 1-2 minutes, then switch to the other foot. You can also try picking up small objects with your toes as a variation of this exercise.



### **Seated Toe Presses**

#### How to perform:

**Step 1: Starting position -** Sit with your feet flat on the floor.

**Step 2: Exercise** - Press your big toe down into the floor while simultaneously lifting your other toes up. Hold for 3-5 seconds. Then switch and press the four smaller toes into the floor while lifting your big toe.

**Step 3: Repetitions -** Repeat each variation 10 times on each foot.



## **Standing Toe Presses (Toe Planking)**

#### How to perform:

**Step 1: Starting position -** Stand with your feet flat on the floor with hand out in front to assist with balance when needed.

**Step 2: Exercise** - Lean forward towards the wall only touching the wall with your hands for balance correction until weight is balanced on your toes. You will feel your heel start to "hover" but still be in contact with the floor. Hold this plank position for 10 seconds.

**Step 3: Repetitions - Repeat exercise for a total of 4 sets.** 



### **Toe Pain**

# 9 Toe ROM (Range of Motion) Exercises



### **Toe Splay Resistance Exercise**

#### How to perform:

**Step 1: Starting Position -** Place a resistance band around your toes, creating light tension between them.

**Step 2: Exercise -** Spread your toes apart, pushing against the resistance band. Hold for 3-5 seconds, then relax.

**Step 3: Repetitions -** Do this 10-12 times per foot. This strengthens the small muscles in the foot and toes.



## Big Toe Stretch (Manual Stretch)

#### How to perform:

**Step 1: Starting Position -** Sit with your foot on your lap, using your hands to hold your toes.

**Step 2: Exercise -** Gently pull your big toe back toward your ankle to stretch the underside of your toe. Hold for 20-30 seconds, then release.

**Step 3: Repetitions** - Repeat 2-3 times for each foot. This helps increase flexibility and can relieve tension in the foot.



## **Ankle and Toe Mobility Combination**

#### How to perform:

**Step 1: Starting Position -** Sit with your legs extended, and point your toes downward.

**Step 2: Exercise -** Slowly draw circles with your toes in the air, moving your ankle and toes together. Make 10 circles in one direction, then switch to the opposite direction.

**Step 3: Repetitions -** Do 2-3 sets of 10 circles per foot.

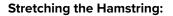


# **Twice Daily Exercise Routine**

## Seated Hamstring & Calf Stretch with a Towel

#### **Starting Position:**

- 1. Sit on the floor with your legs extended straight out in front of you.
- 2. Keep your back straight and avoid slouching.
- 3. Loop a towel or resistance band around the ball of one foot, holding the ends of the towel in both hands.
- 4. Keep the other leg relaxed and slightly bent if necessary, or you can keep it straight for an added challenge.



- 1. Begin by pulling the towel gently towards you, allowing your upper body to lean slightly forward.
- 2. Keep your leg straight as you pull, but avoid locking your knee.
- 3. Focus on feeling a stretch along the back of your leg (hamstrings).
- 4. Hold this position for 20-30 seconds.

#### Adding the Calf Stretch:

- 1. Once you've held the hamstring stretch for a few seconds, pull the towel a bit more to bring your toes toward your shin (dorsiflexion).
- 2. This will increase the stretch in your calf (gastrocnemius and soleus muscles).
- 3. Hold for another 20-30 seconds while maintaining the stretch in both your hamstrings and calves.

#### Release and Switch:

- 1. Slowly release the tension on the towel and relax your leg.
- 2. Switch the towel to the other leg and repeat the stretch on that side.





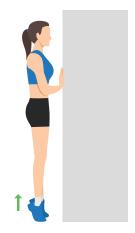


# **Twice Daily Exercise Routine**

# **Standing Tibialis Anterior Raises**

- 1. Stand with your back against a wall or support yourself with a chair.
- 2. Keep your heels on the ground and your feet flat.
- 3. Lift your toes and the balls of your feet off the ground as high as possible, flexing your ankles.
- 4. Hold for a second, then slowly lower your toes back down.
- 5. Perform one set of 30. Increase difficult by moving feet further from the wall or doing single leg.





### **Standing Calf Raises**

(This is the most common variation and can be performed anywhere, using your body weight for resistance.)

- Stand facing a wall with your feet hip-width apart, with your toes pointing forward and lean to wall with your arms extended.
- 2. Slowly raise your heels off the ground as high as possible, pushing through the balls of your feet.
- 3. Hold the top position for 1-2 seconds.
- 4. Slowly lower your heels back to the ground.
- 5. Perform one set of 30. Increase difficult by moving feet further from the wall or doing single leg.

## Standing Soleus Raises (Bent-Knee Calf Raises)

(In this variation, bending the knees shifts more focus onto the soleus while standing.)

- 1. Stand facing a wall with your feet hip-width apart, with your toes pointing forward and lean to wall with your arms extended.
- 2. Slightly bend your knees (about 30 degrees).
- 3. From this bent-knee position, lift your heels off the ground as high as possible, pressing through the balls of your feet.
- 4. Hold the top position for 1-2 seconds, then slowly lower your heels back down.
- 5. Perform one set of 30. Increase difficult by moving feet further from the wall or doing single leg.



# **Twice Daily Exercise Routine**

### Sitting-on-Knees Quad Extension

- 1. Kneel on the floor with your knees about hip-width apart.
- 2. Your feet should be flat on the floor behind you, and your toes pointed backward (top of your feet resting on the floor).
- 3. Keep your torso upright with a neutral spine, engaging your core to maintain stability.
- 4. Sit down on the floor if possible between and not on top of heels working on max knee flexion before returning to the kneel position. Repeat this motion 10 reps.
- 5. Starting from kneeling position lean Back Slowly.
- 6. While keeping your body in a straight line from your knees to your head, slowly lean back by hinging at your knees.
- 7. As you lean back, your quads will engage to control the descent. Be sure to keep your hips extended (don't let them collapse backward) and your torso straight.
- 8. Go as Far as Comfortable: (can perform in front of couch which will limit how far you can go back to 45°)
- 9. Lean back as far as you can while maintaining control, and without arching your lower back or feeling discomfort in your knees.
- 10. You should feel a deep stretch in the quads as you lean back. The further you go, the more intense the exercise becomes.
- 11. Return to Starting Position: Engage your quads and core to pull your torso back to the starting position. Use a slow, controlled movement to avoid momentum.
- 12. Repetitions: Do one set of 10







## Three to Five Times a Week Exercise Routine

Frequency: Once daily exercises x 3-5 days a week

### Nordic curls

Also known as Nordic hamstring curls, are a highly effective exercise for strengthening the hamstrings. They target the muscles on the back of your thighs (hamstrings) and are particularly beneficial for improving eccentric hamstring strength, which is important for athletes to prevent injuries like hamstring strains and ACL tears.



#### **How to Perform Nordic Curls:**

#### Set-Up:

- Kneel on a padded surface to protect your knees.
- Secure your feet under a sturdy object (such as a bench, a partner holding your ankles, or a piece of gym equipment) to keep them from lifting during the exercise.
- Your body should form a straight line from your knees to your head, and your hands should be ready to catch yourself as you lower down.

#### Lowering Phase (Eccentric):

- While keeping your torso straight, slowly lean forward from the knees, lowering your upper body toward the ground.
- Keep your core tight and try to maintain control as you descend.
- Use your hamstrings to resist gravity as much as possible. When you can no longer control the descent, catch yourself with your hands to avoid face-planting.
- Lower your body all the way to the ground in a controlled manner.

#### **Pushing Back (Assisted Concentric Phase):**

- Push off lightly with your hands to help lift your body back to the starting position, using your hamstrings as much as possible to pull yourself up.
- As your hamstrings get stronger, you can gradually reduce the amount of push-off assistance you use to return to the starting position.

#### Repeat:

• Aim for 3-5 sets of 3-5 reps, depending on your level of strength and control.



## Three to Five Times a Week Exercise Routine

Frequency: Once daily exercises x 3-5 days a week

## Single-leg wedge ATG

The ATG (Ass to Grass) squat is an advanced lower body exercise that targets the quadriceps, hamstrings, glutes, and calves while promoting balance, flexibility, and overall lower body strength. The "wedge" aspect refers to elevating the heel, which can help facilitate a deeper squat by altering the angle of the ankle and knee joints.

#### How to Perform a Single-Leg Wedge ATG Squat:

#### **Equipment Needed:**

- A wedge or slant board (you can also use a small weight plate or a thick book).
- A sturdy surface for balance (like a wall or a squat rack) if needed.

#### Setup:

- Position the Wedge: Place a wedge or slant board on the ground. The slope should be angled so that your heel will be elevated when you perform the squat.
- Foot Placement: Stand on the wedge with one foot, ensuring your heel is on the elevated side. Your other leg should be extended out in front of you, slightly off the ground.

#### Execution:

- Engage Your Core: Keep your core tight and your torso upright throughout the movement.
- 2. Squatting Down: Begin to lower your body by bending the knee of the leg on the wedge. Aim to squat down as low as you can, ideally until your thigh is parallel to the ground or lower (hence "Ass to Grass").
  - Keep the knee aligned over your toes without allowing it to cave inward.
  - Ensure your hips move back and down to maintain balance.
- 3. Hold the Position: Pause at the bottom of the squat for a moment to engage the muscles.
- 4. Returning to Start: Press through your heel to push yourself back up to the starting position, keeping the movement controlled.
- 5. Repetitions: Perform 6-12 reps on one leg, then switch to the other leg.

