

Level 1 Function

Potential inclusion criteria:

- Able to walk 0 to 15 min
- Able to sit to stand from chair without use of hands 0-10 times in 1 minute
- Slow walking speed with high reliance on gait aids
- Irritability - high

Goals

- Low impact aerobic exercise 150 min/week
- Daily stretching 2 x 20 sec/stretch
- Strength 2-3 x/week, 2-3 sets of 8-12 reps

Low impact aerobic exercise:

Ideas: walking, biking, swimming, water walking or aerobics, elliptical, tai chi

1. Heel Slides

Sets: 2 | **Hold:** 20 seconds | **Frequency:** daily

Preparation:

- Lie on back with knee straight

Execution:

- Keeping the heel in contact with the floor, slowly slide heel up toward buttocks
- Relax back to the start position.



Start Position



Slide heel up

2. Knees to Chest | Double Leg

Sets: 2 | Hold: 20 seconds |
Frequency: daily

Execution:

- Lay on your back.
- Bring your knees to your chest



Hug your knees

3. Quadriceps Stretch (Chair)

Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Stand tall with foot on the seat of a chair

Execution:

- Push your hip forwards and feel a stretch in the front of your thigh



Push your hip forward and avoid arching through lower back



Maintain straight alignment, thighs are parallel

4. Gastrocs Stretch (Wall)

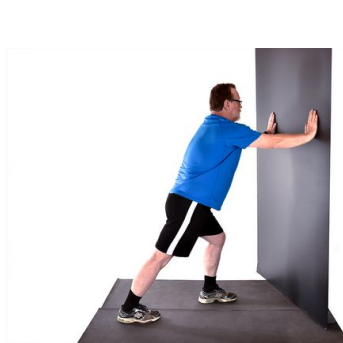
Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Stand in front of a wall with one leg forward and one leg back

Execution:

- Keeping your back leg straight and heel on ground, lean forward bending your front knee



Eyes and head forward, hands relaxed on wall, belly button pulled in



Bend elbows to move closer to the wall to stretch the back leg, keep front knee behind toes

5. Hamstring Stretch

Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Sit on the edge of a chair

Execution:

- Put one leg out front
- Keep your knee locked
- Lean forward from the hips
- You should feel a stretch in the back of your leg



Eyes and head forward, hands resting on thigh, toes toward the ceiling



Hinge at hips to feel stretch in the back of the thigh

6. Piriformis Stretch

Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Sit with good posture
- Have one knee crossed over the other as shown

Execution:

- Bring knee towards opposite shoulder



Start Position



Keep good posture



Bring knee towards opposite shoulder

7. Hip Adductor Stretch

Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Begin in the side lunge position as shown
- Your leg should be out to the side and slightly behind you, both feet flat on the floor

Execution:

- Keeping your back straight, lunge deeper to the side until you feel a stretch along the inside of your leg.



Lunge to side - You should feel a stretch on the inside of your leg

8. Partial Wall Squat | Isometric

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3x per week

Preparation:

- Stand with back against wall

Execution:

- Perform a squatting motion, sliding down the wall
- Stop at desired depth and hold



Back against wall , feet one stride length from wall



Partial squat, hold

9. Hip Extension (Countertop, Band)

Preparation:

- Stand with hands on countertop, holding a band
- Loop the band around your foot

Execution:

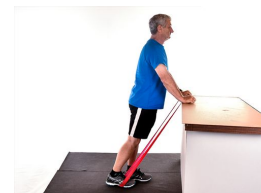
- Press your leg down and back against the resistance of the band



Band looped around foot, hands holding countertop



Press band down and back



Leg finishes straight and slightly behind you body



10. Clamshell

Sets: 2-3 | Reps: 8-12 | Frequency: 2-3x per week

Preparation:

- Lie on your side with your hips at 45 degrees and your knees bent to 90 degrees.
- Your heels are in line with your buttocks.
- Tilt your hips forward towards the ground slightly.



Start position



Lift knees apart

Execution:

- Lift your knees apart (like a clam opening)

11. Knee Flexion (Band)

Sets: 2-3 | Reps: 8-12 | Frequency: 2-3x per week

Preparation:

- Attach band to ankle
- Sit on a chair with good posture

Execution:

- Curl knee against resistance



Start position



Curl knee against resistance

12. Knee Extension (Band)

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3x per week

Preparation:

- Attach band to ankle
- Sit in a chair with good posture

Execution:

- Straighten knee against resistance



Sit in a chair with good posture



Straighten knee against resistance

13. Calf Raise | Hand Support (Countertop)

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3x per week

Preparation:

- Standing in front of a countertop
- Place your hands on the countertop

Execution:

- Stand on your tip toes, lifting your heels as high as you can



Holding countertop for support



Lift heels



Standing on tip toes, Lower back down with control

14. Bridge

Sets: 2-3 | Reps: 8-12 | Frequency: 2-3x per week

Preparation:

- Lie on your back with arms resting at your sides, palms up
- Bend hips and knees, placing feet on flat surface
- Pull belly button in



Lie on back, arms resting at your side, palms up; Bend hips and knees, place feet on flat surface



Keep belly button pulled and squeeze glutes during movement



Lower slowly back to start position

Execution:

- Lift your hips off the surface to make a bridge
- Do not arch your back
- Keep belly button pulled and squeeze glutes during movement
- Lower slowly

15. Wall Plank | Forearms

Sets: 2-3 | Hold: 30 seconds | Frequency: 2-3x per week

Preparation:

- Position yourself with forearms against wall as shown

Execution:

- Keep trunk engaged, do not let lower back arch



Plank against wall

Level 2 Function

Requirements for progression

- Able to walk 15-30 min
- Able to sit to stand from chair without use of hands 10-15 times in 1 minute
- Medium gait speed with low to no use of gait aids
- Irritability – medium

Potential inclusion criteria:

- Able to walk 15-30 min
- Able to sit to stand from chair without use of hands 10-15 times in 1 minute
- Medium gait speed with low to no use of gait aids
- Irritability – medium

Goals

- Low impact aerobic exercise 150 min/week
- Daily stretching 2 x 30 sec/stretch
- Strength 3-4 x/week, 3 sets of 8-12 reps

Requirements for progression

- Able to walk 30+ min
- Able to sit to stand from chair without use of hands 15+ times in 1 minute
- High gait speed with no use of gait aids
- Irritability – low

1. Heel Slides

Sets: 2 | **Hold:** 20 seconds | **Frequency:** daily

Preparation:

- Lie on back with knee straight

Execution:

- Keeping the heel in contact with the floor, slowly slide heel up toward buttocks
- Relax back to the start position.



Start Position



Slide heel up

2. Knees to Chest | Double Leg

Sets: 2 | Hold: 20 seconds |
Frequency: daily

Execution:

- Lay on your back.
- Bring your knees to your chest



Hug your knees

3. Quadriceps Stretch (Chair)

Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Stand tall with foot on the seat of a chair

Execution:

- Push your hip forwards and feel a stretch in the front of your thigh



Push your hip forward and avoid arching through lower back



Maintain straight alignment, thighs are parallel

4. Gastrocs Stretch (Wall)

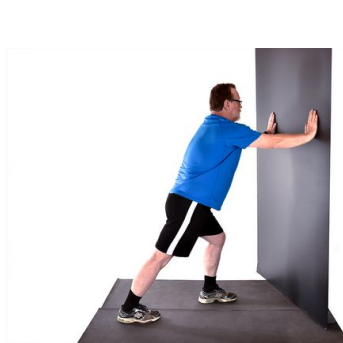
Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Stand in front of a wall with one leg forward and one leg back

Execution:

- Keeping your back leg straight and heel on ground, lean forward bending your front knee



Eyes and head forward, hands relaxed on wall, belly button pulled in



Bend elbows to move closer to the wall to stretch the back leg, keep front knee behind toes

5. Hamstring Stretch

Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Sit on the edge of a chair

Execution:

- Put one leg out front
- Keep your knee locked
- Lean forward from the hips
- You should feel a stretch in the back of your leg



Eyes and head forward, hands resting on thigh, toes toward the ceiling



Hinge at hips to feel stretch in the back of the thigh

6. Piriformis Stretch

Sets: 2 | **Hold:** 20 seconds | **Frequency:** daily

Preparation:

- Sit with good posture
- Have one knee crossed over the other as shown

Execution:

- Bring knee towards opposite shoulder



Start Position



Keep good posture



Bring knee towards opposite shoulder

7. Hip Adductor Stretch

Sets: 2 | **Hold:** 20 seconds | **Frequency:** daily

Preparation:

- Begin in the side lunge position as shown
- Your leg should be out to the side and slightly behind you, both feet flat on the floor

Execution:

- Keeping your back straight, lunge deeper to the side until you feel a stretch along the inside of your leg.



Lunge to side - You should feel a stretch on the inside of your leg

8. Wall Squat (Band)

Sets: 2 | Reps: 8-12 | Frequency: 2-3x per week

Preparation:

- Stand with back against wall, band or belt around knees
- Feet away from the wall

Execution:

- Perform a squatting motion, sliding down the wall
- Rise up, straightening at the hip



Back against wall, feet one stride length forward



Squat - Squeeze knees gently against band/belt

9. Hip Extension Eccentric (Band)

Sets: 2-3 | Reps: 8-12 | Frequency: 2-3x per week

Preparation:

- Stand with good posture, feet shoulder width apart
- Hold onto a counter or object for support

Execution:

- Lift one straight leg behind you as if stepping back
- SLOWLY return to the starting position



Lift leg back



Using buttocks, slowly relax against resistance

10. Clamshell

Sets: 2-3 | Reps: 8-12 | Frequency: 2-3x per week

Preparation:

- Lie on your side with your hips at 45 degrees and your knees bent to 90 degrees.
- Your heels are in line with your buttocks.
- Tilt your hips forward towards the ground slightly.



Start position



Lift knees apart

Execution:

- Lift your knees apart (like a clam opening)

11. Knee Flexion Concentric (Band)

Sets: 2 | Reps: 8-12 | Frequency: 2-3x per week

Preparation:

- Attach an ankle weight or tubing to your foot as shown.
- Stand with good posture. Use a table or countertop for support.

Execution:

- Lift your heel up towards your buttocks as far as you can, bending your knee.
- Relax your leg, returning to the start position.



Start position



Bend knee

12. Knee Extension (Band)

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3x per week

Preparation:

- Attach band to ankle
- Sit in a chair with good posture

Execution:

- Straighten knee against resistance



Sit in a chair with good posture



Straighten knee against resistance

13. Calf Raise Eccentric | Bilateral (Chair)

Sets: 2 | Reps: 8-12 |
Frequency: 2-3x per week

Preparation:

- Stand holding a chair as shown

Execution:

- Stand on your tip toes, lifting your heels as high as you can
- SLOWLY lower heels to floor
- Return to start position



Start Position



SLOWLY lower to start position

14. Wall Plank | Forearms

Sets: 2-3 | Hold: 30 seconds

Frequency: 2-3x per week

Preparation:

- Position yourself with forearms against wall as shown

Execution:

- Keep trunk engaged, do not let lower back arch



Plank against wall

15. Wall Plank | Forearms

Sets: 2-3 | Hold: 30 seconds

Frequency: 2-3x per week

Preparation:

- Position yourself with forearms against wall as shown

Execution:

- Keep trunk engaged, do not let lower back arch



Plank against wall

Level 3 Function

Potential inclusion criteria:

- Able to walk 30+ min
- Able to sit to stand from chair without use of hands 15+ times in 1 minute
- High gait speed with no use of gait aids
- Irritability – low

Goals

- Low impact aerobic exercise 150 min/week
- Daily stretching 2 x 30 sec/stretch
- Strength 4-5 x/week, 3 sets of 8-12 reps

1. Heel Slides

Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Lie on back with knee straight

Execution:

- Keeping the heel in contact with the floor, slowly slide heel up toward buttocks
- Relax back to the start position.



Start Position



Slide heel up

2. Knees to Chest | Double Leg

Sets: 2 | Hold: 20 seconds |
Frequency: daily

Execution:

- Lay on your back.
- Bring your knees to your chest



Hug your knees

3. Quadriceps Stretch (Chair)

Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Stand tall with foot on the seat of a chair

Execution:

- Push your hip forwards and feel a stretch in the front of your thigh



Push your hip forward and avoid arching through lower back



Maintain straight alignment, thighs are parallel

4. Gastrocs Stretch (Wall)

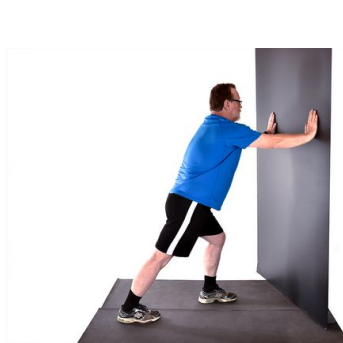
Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Stand in front of a wall with one leg forward and one leg back

Execution:

- Keeping your back leg straight and heel on ground, lean forward bending your front knee



Eyes and head forward, hands relaxed on wall, belly button pulled in



Bend elbows to move closer to the wall to stretch the back leg, keep front knee behind toes

5. Hamstring Stretch

Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Sit on the edge of a chair

Execution:

- Put one leg out front
- Keep your knee locked
- Lean forward from the hips
- You should feel a stretch in the back of your leg



Eyes and head forward, hands resting on thigh, toes toward the ceiling



Hinge at hips to feel stretch in the back of the thigh

6. Piriformis Stretch

Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Sit with good posture
- Have one knee crossed over the other as shown

Execution:

- Bring knee towards opposite shoulder



Start Position



Keep good posture



Bring knee towards opposite shoulder

7. Hip Adductor Stretch

Sets: 2 | Hold: 20 seconds | Frequency: daily

Preparation:

- Begin in the side lunge position as shown
- Your leg should be out to the side and slightly behind you, both feet flat on the floor

Execution:

- Keeping your back straight, lunge deeper to the side until you feel a stretch along the inside of your leg.



Lunge to side - You should feel a stretch on the inside of your leg

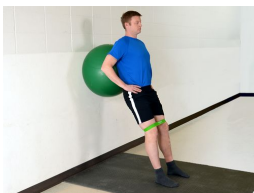
8. Wall Squat on Ball | 2 Down, 1 Up (Band at Knees)

Preparation:

- Stand with back on ball as shown
- Have band around knees

Execution:

- Perform a squatting motion using both legs
- At the bottom, shift weight onto one leg
- Return to the start position using one leg



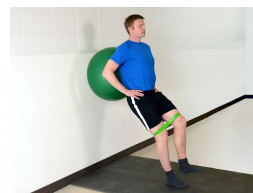
Stand with back on ball



Perform a squatting motion using both legs



At the bottom, shift weight onto one leg



Return to the start position using one leg

9. Hip Extension Eccentric (Band)

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3x per week

Preparation:

- Stand with good posture, feet shoulder width apart
- Hold onto a counter or object for support

Execution:

- Lift one straight leg behind you as if stepping back
- SLOWLY return to the starting position



Lift leg back



Using buttocks, slowly relax against resistance

10. Clamshell Side Plank (Band)

Sets: 2 | Reps: 8-12 |
Frequency: 2-3x per week

Preparation:

- Band around knees
- Go into a side plank

Execution:

- Perform a clamshell with the top leg
- Do not twist through your trunk



Go into a side plank



Perform a clamshell with the top leg

11. Knee Flexion Concentric (Band)

Sets: 2 | Reps: 8-12 |
Frequency: 2-3x per week

Preparation:

- Attach an ankle weight or tubing to your foot as shown.
- Stand with good posture. Use a table or countertop for support.

Execution:

- Lift your heel up towards your buttocks as far as you can, bending your knee.
- Relax your leg, returning to the start position.



Start position



Bend knee

12. Knee Extension (Band)

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3x per week

Preparation:

- Attach band to ankle
- Sit in a chair with good posture

Execution:

- Straighten knee against resistance



Sit in a chair with good posture



Straighten knee against resistance

13. Bent Knee Calf Raise | Single Leg

Sets: 2 | Reps: 8-12 |
Frequency: 2-3x per week

Preparation:

- Stand on one foot at the edge of a step, knees bent as shown

Execution:

- Raise up onto toes
- Return to start position



Start Position



Raise up onto toes

14. Elevated Front Plank | Forearms

Sets: 2-3 | **Hold:** 30 seconds |
Frequency: 2-3x per week

Preparation:

- Position yourself in plank position on a bench as shown

Execution:

- Hold



Hold plank position on a bench