

Level 1

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. 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

3. Gastrocs Stretch (Wall)

Sets: 2

Hold: 20

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

4. 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

5. Piriformis/External Rotator Stretch

Sets: 2 | Hold: 20 | Frequency: Daily

Preparation:

- Lie on your back with knees bent. Cross the leg you want to stretch over the other knee
- Grab the back of your thigh with your hands

Execution:

- Pull your knees towards your chest
- Feel a stretch in buttock



Cross leg over knee



Pull knees toward chest

6. 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

7. Partial Wall Squat

Sets: 2-3 | Reps: 8-12 | Frequency: 2-3 x Weekly

Preparation:

- Stand with back against wall

Execution:

- Perform a squatting motion, sliding down the wall
- Stop at desired depth and slide back up



Back against wall , feet
one stride length from
wall



Slide down the wall

8. Hip Extension (Band)

Sets: 2-3

Reps: 8-12

Frequency: 2-3 x Weekly

Preparation:

- Use a chair for support
- One foot on exercise band as shown

Execution:

- Kick back - knee straight
- Do not bend or lean



Use a chair for support



Kick back - knee straight

9. Clamshell

Sets: 2-3

Reps: 8-12

Frequency: 2-3 x Weekly

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.

Execution:

- Lift your knees apart (like a clam opening)



Start position



Lift knees apart

10. Knee Flexion (Band)

Sets: 2-3

Reps: 8-12

Frequency: 2-3 x Weekly

Preparation:

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

Execution:

- Curl knee against resistance



Start position



Curl knee against resistance

11. Knee Extension (Band)

Sets: 2-3

Reps: 8-12

Frequency: 2-3 x Weekly

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

12. Calf Raise | Hand Support (Countertop)

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3 x Weekly

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

13. Bridge | Arms Flat

Sets: 2-3 | Reps: 8-12 | Frequency: 2-3 x Weekly

Preparation:

- Lie flat on your back with your arms straight beside you
- Bend knees up so that your feet are flat

Execution:

- Lift your hips up in the air to make a bridge using your arms to stabilize
- Lower down in a controlled manner



Start Position



Lift hips up

Level 2

When Can I Start Level 2?

- Completed level 1 goals
- 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

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. 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

3. 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

4. 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

5. Piriformis/External Rotator Stretch

Sets: 2 | Hold: 20 Seconds | Frequency: Daily

Preparation:

- Lie on your back with knees bent. Cross the leg you want to stretch over the other knee
- Grab the back of your thigh with your hands

Execution:

- Pull your knees towards your chest
- Feel a stretch in buttock



Cross leg over knee



Pull knees toward chest

6. 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

7. Wall Squat (Band)

Sets: 2-3 | Reps: 8-12 | Frequency: 2-3 x Weekly

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

8. Hip Extension Eccentric (Band)

Sets: 2-3 | Reps: 8-12 |

Frequency: 2-3 x Weekly

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

9. Clamshell | Sidelying (Band)

Sets: 2-3 | Reps: 8-12 |

Frequency: 2-3 x Weekly

Preparation:

- Lie on your side with your hips at 45° and your knees at 90°
- Band around your knees

Execution:

- Open your top knee up against the resistance of the band



Hips slightly bent, knees bent to 90 degrees



Open knees up like a clamshell

10. Knee Flexion Concentric (Band)

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3 x Weekly

Preparation:

- Sit with good posture
- Loop tubing around your ankle as shown

Execution:

- Bend your knee as much as you can
- Straighten your knee in a controlled manner



Start Position



Bend Knee

11. Knee Extension (Band)

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3 x Weekly

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

12. Calf Raise Eccentric | Bilateral (Chair)

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3 x Weekly

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

Level 3

When Can I Progress To Level 3

- Completed Level 2 Goals

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. 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

3. Gastrocs Stretch (Wall)

Sets: 2

Hold: 20 Seconds

Frequency: 8-12

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

4. 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

5. Piriformis/External Rotator Stretch

Sets: 2 | Hold: 20 Seconds | Frequency: Daily

Preparation:

- Lie on your back with knees bent. Cross the leg you want to stretch over the other knee
- Grab the back of your thigh with your hands

Execution:

- Pull your knees towards your chest
- Feel a stretch in buttock



Cross leg over knee



Pull knees toward chest

6. 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

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

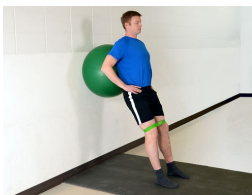
Sets: 2-3 | Reps: 8-12 | Frequency: 2-3 x Weekly

Preparation:

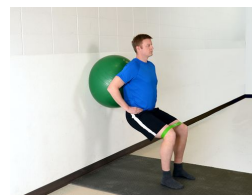
- Stand with back on ball as shown
- Have band around knees

Execution:

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



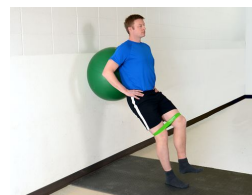
Stand with back on ball



Perform a squatting motion using both legs



At the bottom, shift weight onto one leg



Return to the start position using one leg

8. Hip Extension Eccentric (Band)

Sets: 2-3 | Reps: 8-12 |

Frequency: 2-3 x Weekly

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

9. Clamshell Side Plank (Band)

Sets: 2-3 | Reps: 8-12 |

Frequency: 2-3 x Weekly

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

10. Knee Flexion Eccentric (Band)

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3 x Weekly

Preparation:

- Sit with good posture
- Loop tubing around your ankle as shown

Execution:

- Draw your heel down towards the floor, bending your knee as much as you can
- SLOWLY straighten your knee against the resistance



Start Position



Slowly Straighten Knee

11. Knee Extension Eccentric (Band)

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3 x Weekly

Preparation:

- Sit in a chair with good posture
- Attach tubing or weight to your ankle as shown
- Straighten your knee as much as you can

Execution:

- SLOWLY lower your foot to the ground, bending your knee over a count of 3-5 seconds
- Straighten your knee, returning to the start position



Start Position



Slowly Bend Knee

12. Calf Raise Eccentric | Single Leg (Chair)

Sets: 2-3 | Reps: 8-12 |
Frequency: 2-3 x Weekly

Preparation:

- Stand holding a chair as shown
- Stand on one foot

Execution:

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



Start Position



SLOWLY lower heel to floor

Return To Activity

Build back into your activity or sport, progressing slowly and increasing time or intensity by 10% per week. Be sure to discuss sport specific progressions with a G23 physiotherapist.