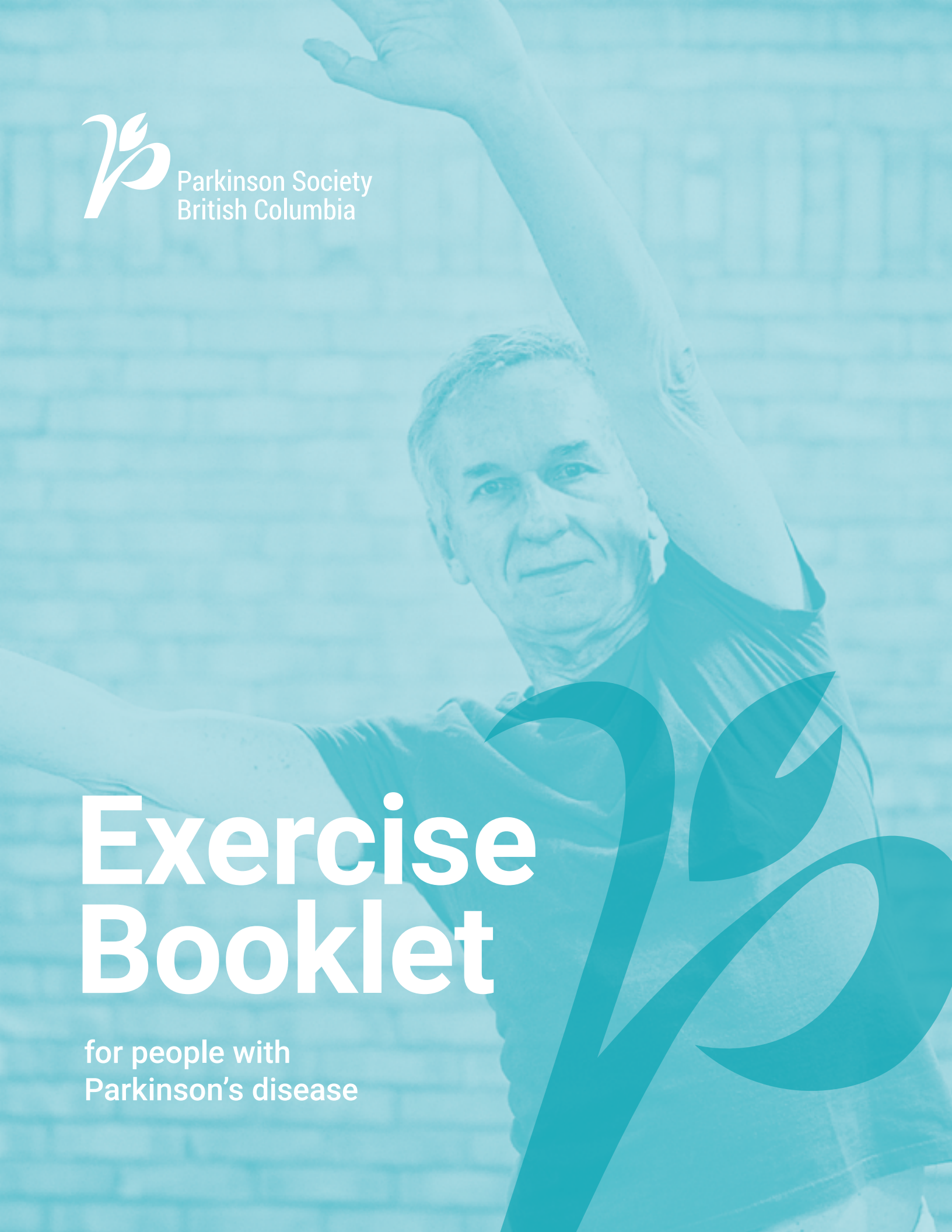




Parkinson Society
British Columbia

Exercise Booklet

for people with
Parkinson's disease





This exercise booklet was created by Parkinson's disease physiotherapist, Shelly Yu, and Parkinson Society British Columbia (PSBC).

We would like to acknowledge the following members of the Parkinson's community for their contributions to the production of this exercise booklet: **Fran Cormier, Vicki Grealy, Beverly Russell, and Neil Wong.**

We would also like to thank **Marilyn Araujo**, physiotherapist at the Jim Pattison Outpatient Care and Surgery Centre, and **Michelle McCarthy**, physiotherapist at the University of British Columbia Movement Disorders Clinic.

Disclaimer:

This exercise booklet is for general use only. The information and exercises in this booklet should not replace any individual advice given by your healthcare provider.

PSBC and Shelly Yu will not be held liable for accidents or incidents that may occur in your home. By accessing this exercise booklet, you are recognizing that risk of illness and/or injury may be inherent in any movement or exercise and are participating with the express agreement of, and understanding that Shelly Yu, and PSBC and its directors, officers, employees, partners, and agents are hereby released from any and all claims, costs, liabilities, expenses, or judgements associated with this Exercise booklet for people with Parkinson's disease.

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Exercise for people with Parkinson's

Each individual with Parkinson's disease (PD) requires their own unique treatment plan. The only method of symptom management proven universally effective and essential for all people with PD is exercise.

Physical activity is known to promote healthy brain function, as well as improve motor function. Recent studies have also found the potential for exercise to slow the progression of Parkinson's, and help older adults maintain their cognitive ability. Many people with PD benefit from the support of physiotherapists to design custom exercise plans that fit their mobility level, and build their strength, flexibility, balance, and agility in a safe and controlled way. But even for those without access to the guidance of allied healthcare professionals, it is possible – and important – to add exercise to your Parkinson's treatment plan.

The benefits of exercise

Everyone can benefit from exercise regardless of age or health status. Regular physical activity is widely known to reduce the risk of cardiovascular disease, type 2 diabetes, mobility issues, sleep disorders, substance abuse disorders, and various cancers.

Maintaining an exercise routine is also tied to:

- positive effects on mood and mental health
- reduced stress and fatigue, and higher energy levels
- slower loss of bone density with age, and lowered risk of osteoporosis
- lowered risk of sexual dysfunction, and increased arousal
- improved digestive health, and lowered risk of constipation
- longer life expectancy, and better overall health

Importantly for people with Parkinson's, exercise is also known to be neuroprotective, **meaning that it preserves brain health.**

The brain is malleable, and can change at a cellular level in response to one's health, environment, lifestyle, and other factors. This property, called neuroplasticity, allows the brain to adapt and repair functions that are impacted in PD, through healthy habits like regular exercise.

Exercise builds and strengthens neural pathways in the brain, and stimulates the production of chemicals such as dopamine, oxytocin, serotonin, and endorphins. Dopamine, in particular, plays an important role in Parkinson's. It is a chemical released by brain cells (neurons), in order to communicate with other nerve cells throughout the brain and body. It plays a role in motor function, hormone release, and decision-making. Parkinson's symptoms are caused by a lack of dopamine in the brain.

Research suggests that exercise should be a central part of the Parkinson's care plan. Many studies have found impressive benefits when comparing regular activity to a sedentary lifestyle in people with PD. *Rafferty et al. (2017)* observed 3,408 people with PD over two years, and found that participants who exercised regularly (150 minutes per week) had better mobility and health-related quality of life compared to those who did not exercise, with the

greatest benefits seen in those who were entering advanced stages of PD. Although the participants saw their disease progress over the course of the study, those who maintained an exercise routine saw a slower progression than those who were sedentary.

Exercise is such a crucial part of Parkinson's treatment and management because it can also provide many of the same benefits as common PD medications, albeit at a lower level of efficacy (*Alberts et al., 2016*). The most common PD drugs target the brain to stimulate dopamine production, while others can be used to repair a variety of impacted functions in the parts of the brain that control non-motor symptoms, mood, and cognition. Exercise on its own can produce small improvements in these same areas, so it is understood to enhance the effects of many medications, though it should not be considered as a replacement.

Studies have shown that exercise can improve mobility and quality of life, and slow Parkinson's disease progression, with the greatest benefits seen in those who exercise consistently and regularly, at least 2.5 hours per week (*Parkinson's Foundation*).



Types of exercise for Parkinson's

Any form of movement and physical activity that challenges you outside your regular routine can be considered exercise. Currently, there is no specific type of exercise that has been proven the most beneficial for Parkinson's. Any form of exercise is better than none, though the most comprehensive exercise routines share the following common elements:

- Moderate to high intensity (to increase heart rate)
- Aerobic component (can be continuous, or intervals)
- Strength component
- Balance component
- Flexibility and stretch component
- Cognitive stimulating component (eg. Dual-tasking or navigating obstacles)
- Behaviour change component (eg. sense of social motivation, support, and team camaraderie)

The more of these components contained in your exercise routine, the better. Some examples of activities that combine many of these elements include dancing, tai chi, boxing, aerobic exercise (*eg. gym circuits and classes like Pilates*), walking (*with or without Nordic poles*), cycling, and aqua-exercises.

Parkinson's symptoms vary greatly from person to person, and there is no "one size fits all" approach to exercise. Your routine should be based on your individual interests, and should fit your lifestyle. For example, if you dislike the gym, then try walking outdoors, or take a dance class. **The key is finding what types of exercise you most enjoy doing, and doing it regularly.**

If you need guidance, you can seek consultation from a PD-experienced physiotherapist, occupational therapist, kinesiologist, or other exercise professional, who can conduct an individualized assessment and help you build an exercise plan to suit your physical needs. To find accredited therapists in your area, visit the links below, or ask your family doctor or neurologist for a referral.



Physiotherapists:
bcphysio.org/find-a-physio

For help navigating healthcare resources in your area, contact our staff.



Occupational Therapists:
caot.ca/site/findot

info@parkinson.bc.ca
1-800-668-3330 or 604-668-3330



Kinesiologists:
bcak.bc.ca/find-a-kinesiologist

Exercise intensity

In healthy individuals, the intensity of physical activity can be measured by comparing your heart rate during exercise to your maximum heart rate, which can be calculated by subtracting your age from 220. High-intensity exercise will raise your heart rate to 70-85% of your maximum heart rate. Many people in the early stages of PD have a normal heart rate, however as the disease progresses, some may experience difficulty bringing their heart rate up due to impaired nerve function in the heart.

Where heart rate may be impaired, the best measure of intensity in Parkinson's is perceived exertion. High-intensity exercise will cause sweating and breathlessness. To avoid overexertion, ensure that you are still able to control your breathing enough to talk in full sentences.

How often to exercise

There are no official guidelines outlining the specific frequency of exercise recommended for people with PD, but the Canadian Physical Activity Guidelines for adults and older adults can be used as a baseline.

Adults aged 18+ should aim for 150 minutes of moderate to vigorous intensity aerobic exercise per week, in bouts of 10 minutes or more. The guidelines also recommend adding muscle and bone strengthening activities at least two days per week. For those who have mobility problems, or a higher fall risk, exercises that train balance and coordination are also recommended.

How long to keep up an exercise routine

Exercise should be a part of your routine at all ages and stages of life.

It can take a few months to build up your fitness, and fully adapt to a new exercise routine. This is why it is important to find an activity you enjoy doing enough to commit to it long-term. If your routine does not challenge you enough to achieve a moderate to high-intensity workout, try incorporating new elements that will help you break a sweat and raise your heart rate. *For example, if you like to walk outdoors, try walking up a slight incline, carrying hand weights, or doing a light hike for an extra challenge.*

Even if you have an exercise regimen that has been prescribed to you as a part of your PD care, there are things you can do to make any exercises more fun and exciting, in order to help you maintain your routine:

- If you can, take your exercise outdoors. Studies have shown that outdoor activity can help boost your energy and mood.
- Listen to music while exercising. You can boost your mood with music you enjoy, and if the rhythm is right, music can help you maintain a good and steady pace. If you experience freezing of gait, this can be especially helpful in reducing freezing when walking.
- Exercise with a partner. Being with others can motivate you to keep going. An exercise partner can also hold you accountable to your weekly exercise routine.
- Set an achievable goal, such as a number of daily steps you would like to reach, or a number of exercise classes you would like to attend.
- Write down your motivations for exercise, and keep a journal to track your progress.



Balance and Falls

Improving balance & preventing falls

Parkinson's disease (PD) affects the parts of the brain controlling balance and coordination. As a result, balance and coordination adjustments that were once automatic now require conscious effort. Additionally, some drugs used to treat PD can lower blood pressure, causing a feeling of faintness when getting up from a sitting or lying position (called Orthostatic Hypotension). Difficulty with balance and/or low blood pressure can increase the risk of falling and bone fractures, both of which can be serious.

EVALUATING FALL RISK

Falls can be caused by many factors, both relating to your physical health and fitness, and your environment. Some of the fall risk factors common in Parkinson's include:

- Advanced or severe symptoms
- Cognitive changes
- Fatigue and sleep disorders
- Freezing (particularly freezing of gait)
- Depression, stress, and anxiety
- Fear of falling
- Medication use and interactions (causing side effects or "off" periods)
- Trunk rigidity and reduced leg strength
- Poor mobility, bradykinesia (slowness), and dyskinesia (involuntary movement)
- Urinary incontinence and urgency (particularly at night, called nocturia)
- Changes in posture, or postural instability
- Acute illness
- Difficulty turning, changing direction, backing up, and moving around obstacles
- Home and community hazards

Although many of the factors above cannot be changed, it is possible to work on improving mobility and balance, and remove hazards from your environment to avoid falls. To determine your individual risk factors, contact your healthcare team or your local home and community care office to arrange an assessment with a physician, physiotherapist, occupational therapist, or other professional.

During a falls risk assessment, you may be asked to perform small tests, such as (PSBC, 2019):

- multi-tasking, especially while walking
- getting up and down from the floor
- maintaining balance when nudged in various directions
- turning in a small space
- picking objects up from the floor
- stepping backwards safely

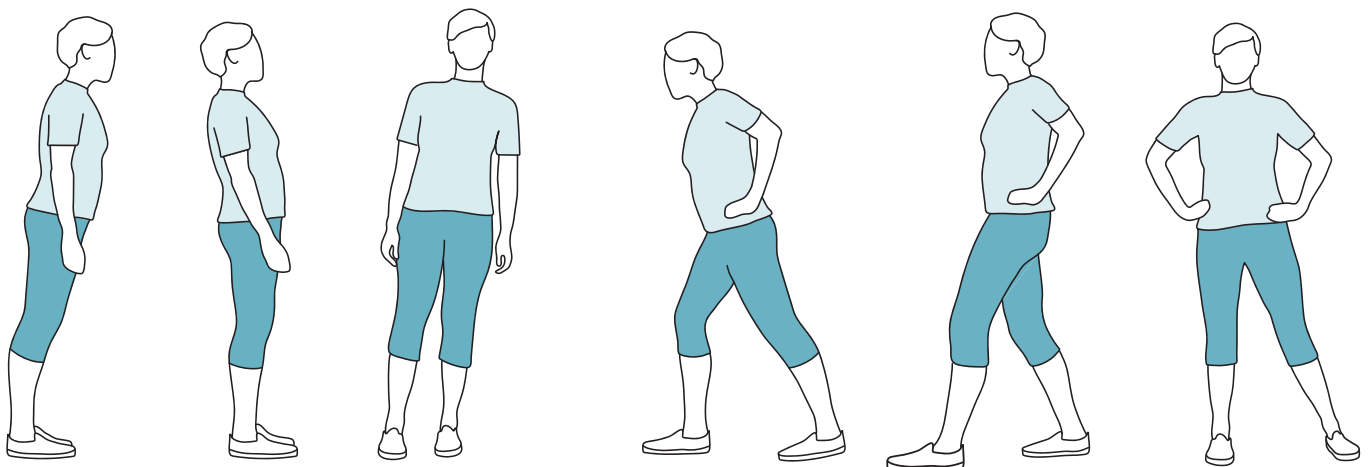


Minimizing risk

Here are a few suggestions on how to avoid falls and manage balance problems:

- Use cueing strategies to overcome freezing of gait. These can include counting, marching, visual targets on the ground, or walking to a musical beat. Note that cues can become less effective over time, so it is best to switch between them occasionally.
- See a clinical counsellor to discuss mental health concerns or fears of falling.
- Exercise to improve your mobility, leg strength, posture, agility, and walking.
- Speak to your healthcare team about incontinence and nocturia, or seek referral to a continence or pelvic floor therapy service.
- Have your blood pressure checked frequently to ensure it is not too low.
- Remove throw rugs and low-lying obstacles from pathways inside and outside your home.
- Avoid using stepladders and stools.
- Consult a healthcare professional for advice on mobility aids. Canes, four-wheeled walkers, and Nordic walking poles can be helpful for people with Parkinson's.
- When walking, stand as straight as you can, and walk with your feet a little wider apart than normal.
- Wear comfortable shoes with good arch supports. If you shuffle, avoid shoes with rubber or crepe soles.
- Pay careful attention to changes in ground surfaces (eg. curb to pavement, or carpet to bare floor).

Some balance problems, like postural instability, can be more complex and require assessment by a physiotherapist. Exercises that may be prescribed for postural instability may be multidirectional swaying and stepping exercises.



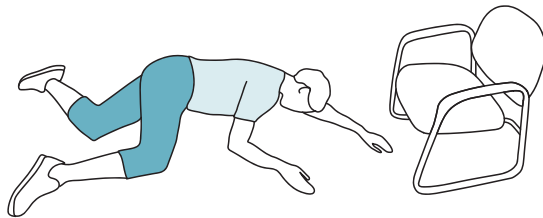
Forward, backward, and side sway

Forward, backward, and side stepping

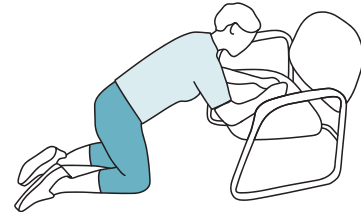
Recovering from falls

If you fall, stay calm, and remain where you are. Take a moment to conduct a body scan (mentally scan and feel from head to toe) to see if you are hurt anywhere. If you are hurt, do not move. If possible, call for help with a cell phone, or get attention from bystanders. If you are not hurt, then you can try getting up from the floor using the technique below, with help from a chair or something sturdy. Only do this if you are sure you are not hurt and can get up by yourself. If you need help getting up from the floor, do not attempt this without assistance, as you could fall again.

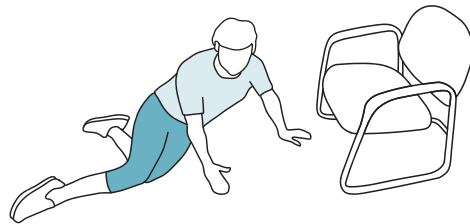
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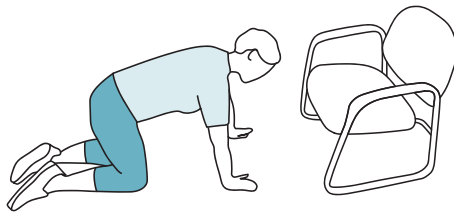
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5



3



6



If you need assistance getting up from the floor, or there is nothing sturdy to hold on to (eg. if you are outside and unable to crawl to a bench or a building wall), you can use the same techniques as above, performing steps 4 through 6 with a person in place of a chair, given that the person assisting feels they are able to do so.





Balance checklist

Balance and good posture can work together to improve your activities of daily living. When your body is correctly aligned, movement is more efficient and stable. To establish good posture:

- 1 Stand with your back against a wall, your feet flat on the floor, and your heels approximately 3-4 inches or less from the wall.
- 2 Hold your head erect, chin parallel to the floor, and your vision focused on a target at eye level.
- 3 Relax the arms and shoulders.
- 4 The buttocks, shoulder blades, and, if possible, the back of the head should be touching the wall. Focus on keeping chin parallel with the floor and eyes on a target.
- 5 Evenly distribute weight throughout feet, front to back, and side to side.
- 6 Pull your abdominals in, and lift your chest.
- 7 Hold position for 15 to 30 seconds, and then relax. If you are not able to hold this position for 15 seconds, start at 5 seconds and repeat until you work your way up.
- 8 Repeat the above directions 2-3 more times.

ADDITIONAL RESOURCES



PSBC Exercise Resources
parkinson.bc.ca/exercise-resources

For help navigating our resources, contact our staff.



In-Home Safety Check Helpsheet
bit.ly/pdhomesafetycheck

info@parkinson.bc.ca
1-800-668-3330 or 604-668-3330



Preventing Falls Booklet
bit.ly/preventing-falls-booklet

Sources

Parkinson Society British Columbia (2019) *Naomi Casiro Discusses Balance & Falling in Parkinson's*. Viewpoints, Fall 2019. Retrieved from: bit.ly/vptsbalancefalling

Getting Started

How to stay motivated

There are many reasons why starting exercise is hard:

- Fear of falling
- Time constraints
- Lack of immediate results seen
- Apathy
- Depression
- Not enjoying exercise

Some strategies to help with these barriers may be:

- Finding an exercise *you actually enjoy!*
- Adding social elements to your exercise, eg. exercising in a club/team or a group setting.
- Finding a partner to exercise with and holding each other accountable for your weekly exercise routines.
- Setting an achievable goal, eg. number of steps per day, or number of exercise classes per week, etc.
- Write down what motivates you to exercise, eg. exercising for personal reasons, to feel better in your body, to benefit your relationships and those around you, or to attend an important social event, etc.
- Set a routine for exercising, including when and how long you will plan to exercise.
- Use a calendar to tick off the days you have exercised so you can keep track of your achievements.



There is a calendar and exercise plan in this book to help you stay motivated in your exercise routine.



I'm ready to exercise! Where do I start?

If you have access to the internet and a computer/smart device, you can visit the links below to view a list of programs offered.



PSBC exercise programs & events:
parkinson.bc.ca/events



Community classes (outside of PSBC):
parkinson.bc.ca/active-living

Contact our staff for more information about local community classes in your area, or paper versions of our exercise classes:

info@parkinson.bc.ca
1-800-668-3330 or 604-668-3330



PRE-EXERCISE CHECKLIST

- Consult your doctor if you have other medical conditions and need clearance for exercise safety.
- Make sure to have your medications with you if you are exercising close to the time of your next dose. For your safety, it is best to avoid exercise during medication "off" times.
- Bring a water bottle with you to ensure hydration during and after exercise.
- Wear comfortable shoes that are secure to your feet.
- Remove tripping hazards such as rugs and low-lying obstacles, if appropriate.
- If you get dizzy when standing up, make sure to stand for a few seconds before moving on.
- If you have frequent falls, consider wearing a falls alarm around your wrist or neck, in case of emergency.

ADDITIONAL RESOURCES

Parkinson Society British Columbia offers many Parkinson's-specific exercise programs. See a few of our programs below, or visit parkinson.bc.ca/events for listings of our upcoming online programs.



10 Day Exercise Challenge
parkinson.bc.ca/10-day-challenge

For help navigating our resources,
 contact our staff.



Exercise Classes with Naomi Casiro
bit.ly/psbc-neurofit

info@parkinson.bc.ca
 1-800-668-3330 or 604-668-3330



Exercise with Nordic Poles
bit.ly/exercise-with-poles



**Morning Pilates with Shelly
 Level 1: Seated/Modified**
bit.ly/pilates-with-shelly-1



**Morning Pilates with Shelly
 Level 2: Standing**
bit.ly/pilates-with-shelly-2



Move with Shelly
bit.ly/move-with-shelly



Rock Steady Boxing with Allie Saks
bit.ly/psbc-rsb

Sources

Alberts, J. L., et al. (2016). *Cortical and motor responses to acute forced exercise in Parkinson's disease*. *Parkinsonism & related disorders*, 24. Retrieved from: www.ncbi.nlm.nih.gov/pmc/articles/PMC4775282

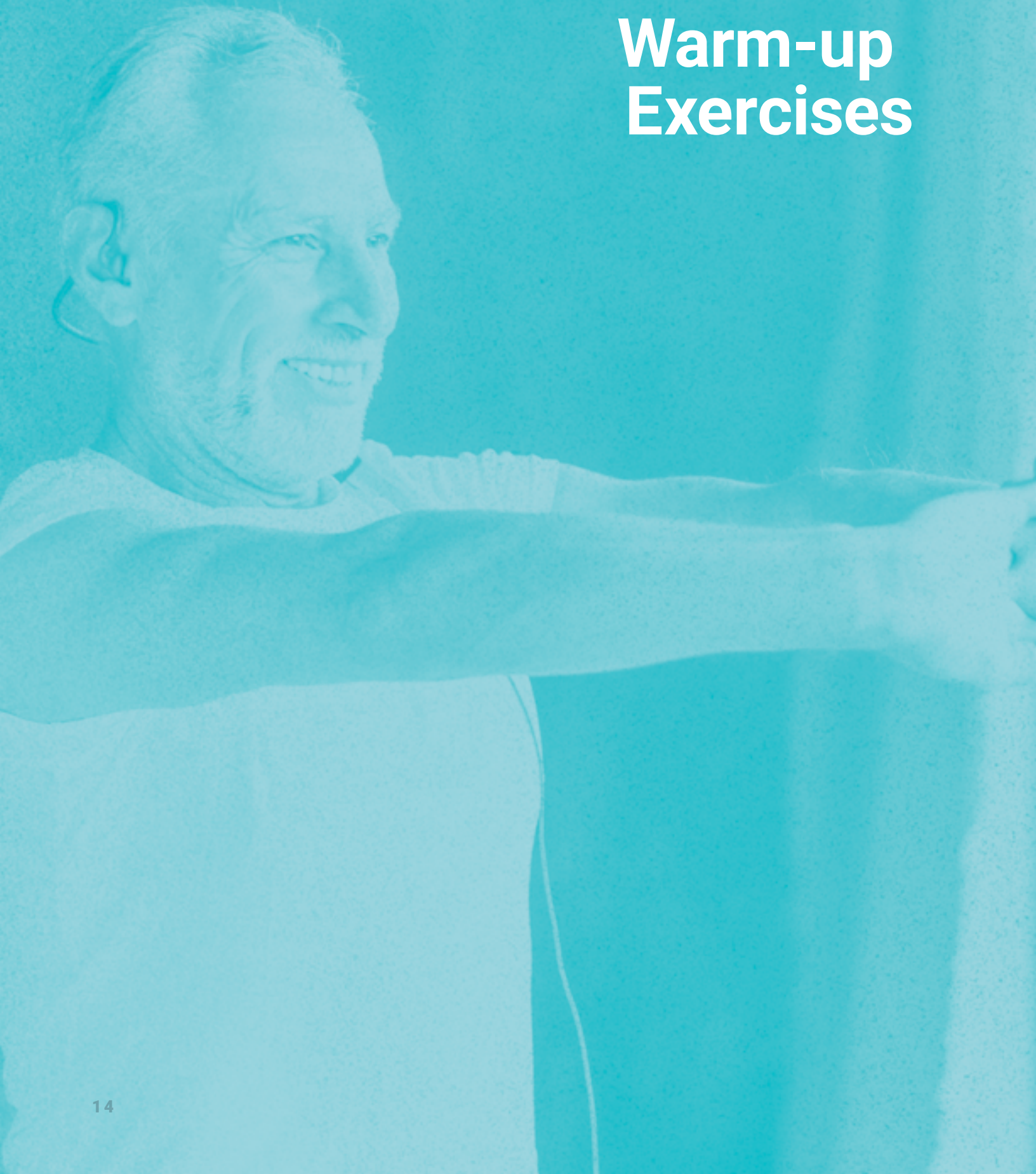
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Warm-up Exercises

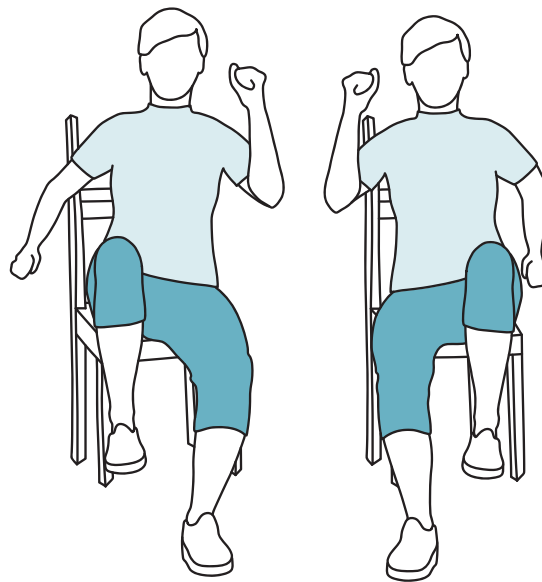
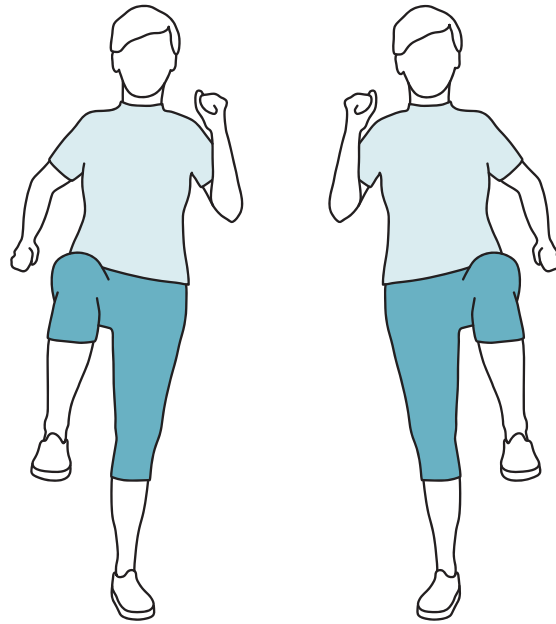


March on the Spot

This exercise can be done in a seated or standing position. A chair without armrests is recommended.

INSTRUCTIONS

1. Lift your knees as high as you can while swinging your arms back and forth with energy.
2. Repeat for 1 minute.



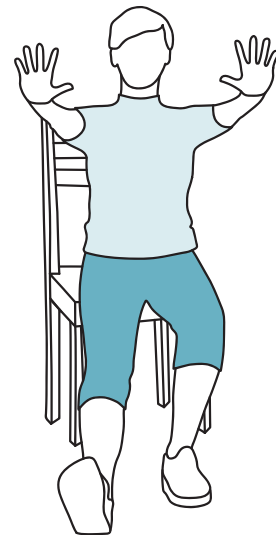
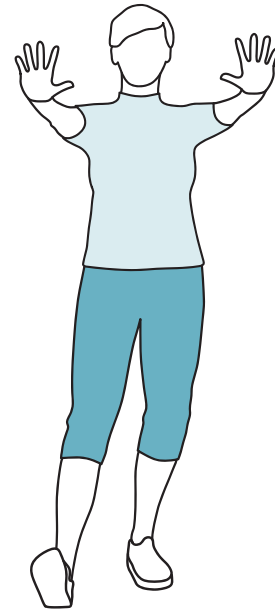
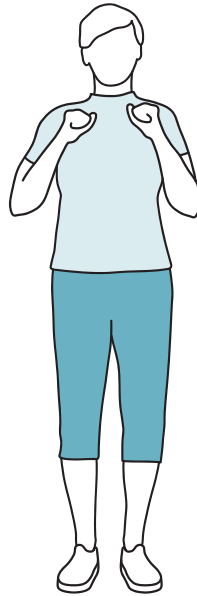


Heel taps

This exercise can be done in a seated or standing position.

INSTRUCTIONS

1. Sit or stand with your feet hip-width apart.
2. Hold your hands in fists, and tuck them into the sides of your chest.
3. From here, push your arms forward and spread your fingers wide. At the same time, extend your right leg and tap the heel of your foot to the ground in front of you.
4. Return to the start position by pulling your hands back into fists at your sides, and bringing your foot back.
5. Repeat on the left side.
6. Continue repetitions for 1 minute.

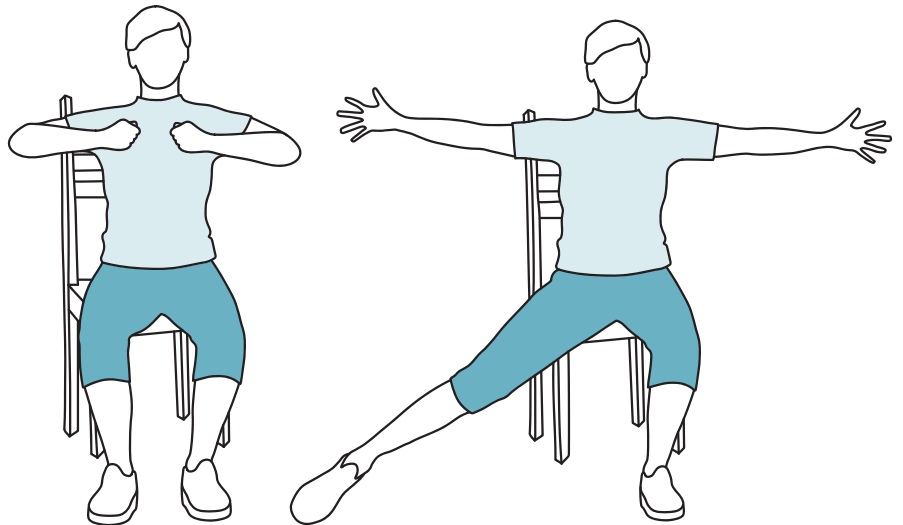
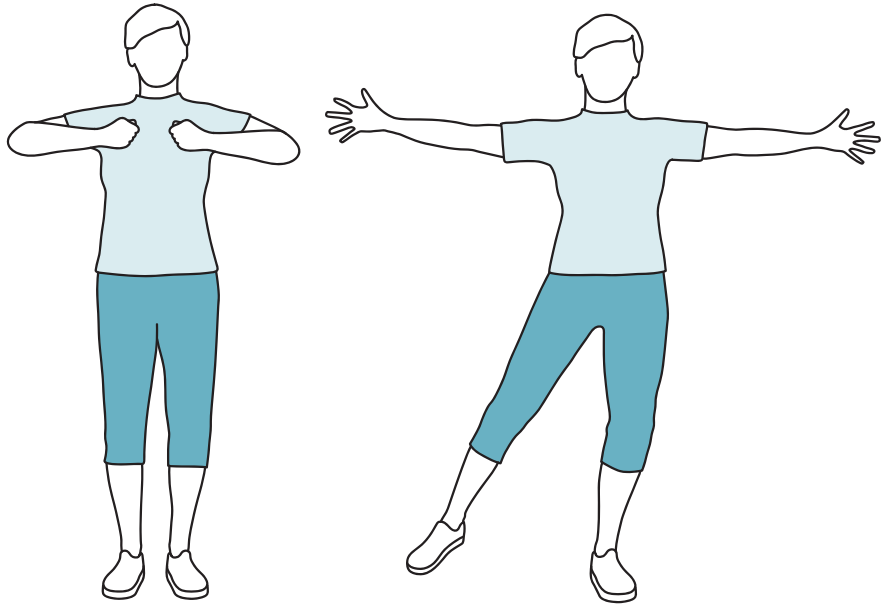


Side taps

This exercise can be done in a seated or standing position.

INSTRUCTIONS

1. Sit or stand with feet hip-width apart and arms bent into your chest, elbows lifted high.
2. Extend your arms out to the sides, spreading your fingers apart.
3. At the same time, extend your right leg out to the side, and tap your toes to the ground.
4. Return to the starting position by bringing the leg back in and pulling the arms back into the chest, elbows lifted high.
5. Repeat on the other side.
6. Continue repetitions for 1 minute.

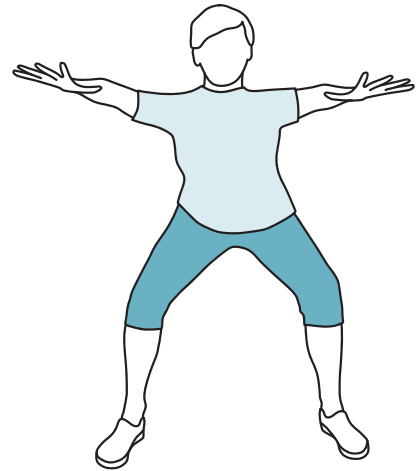
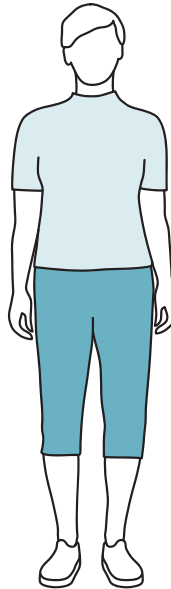




Squats

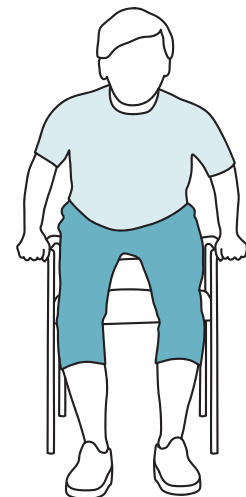
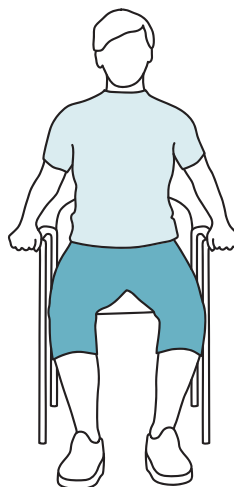
INSTRUCTIONS

1. Stand with feet hip-width apart, arms by your sides.
2. Step out to the right, and squat down, raising your arms straight forward, fingers and palms spread wide. Squat as low as you can, as if hovering your bottom over a seat.
3. Then, stand back up, lowering your arms, and returning your leg to the starting position.
4. Repeat on the left side.
5. Continue repetitions for 1 minute.



SEATED MODIFICATION

1. Start by sitting forward, not touching the back of your chair.
2. Hover your bottom off the seat and hold for 2-3 seconds, then sit back down. Use your arms to help raise yourself if needed. For an added challenge, try doing this without the help of your arms.
3. Repeat for 1 minute.

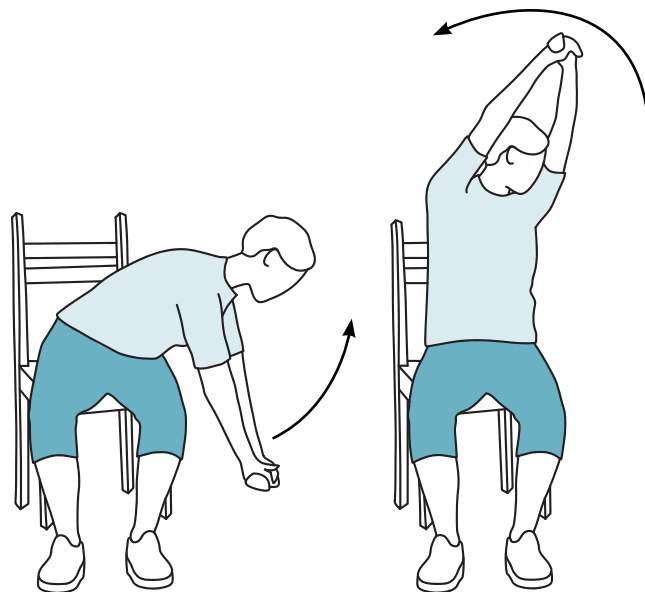
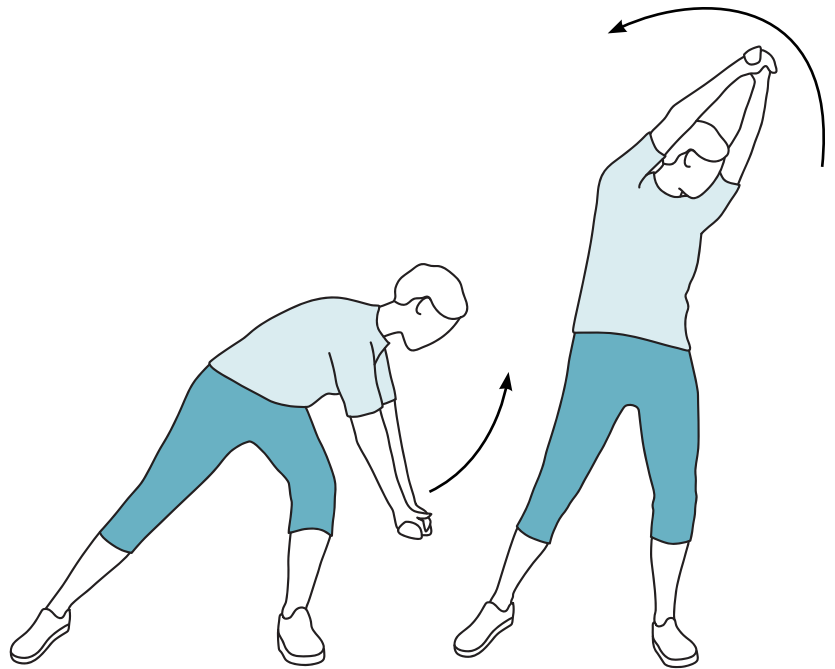


Reach the rainbow

This exercise can be done in a seated or standing position.

INSTRUCTIONS

1. Sit or stand with feet hip-width apart, holding hands clasped in front of you.
2. With hands still clasped, reach down toward the outside of your left foot, while transferring your weight to the left – be careful to maintain your balance as you bend at the hip.
3. Slowly sit or stand back up straight, while reaching your clasped hands up and over your head, as if drawing a big rainbow.
4. Finish the movement with your hands reaching down to your right foot.
5. Repeat drawing the rainbow in the other direction. Make sure to shift your weight from right to left, and back again, and to reach your arms as far as possible.
6. Repeat for 1 minute.





Example Exercises for Parkinson's

Here are 10 example exercises, created by physiotherapist Shelly Yu, based on common physical difficulties seen in people with Parkinson's. To view instructional videos for these exercises, visit parkinson.bc.ca/10-day-challenge.

Tip: Try doing these exercises as a circuit, 2 minutes per exercise with a 1-minute break in between for a total of 30 minutes of exercise. *If 2-minute circuits are too long, feel free to take breaks as needed.*

If you need extra support to exercise while standing, hold on to the back of a chair, or position yourself close to a wall.

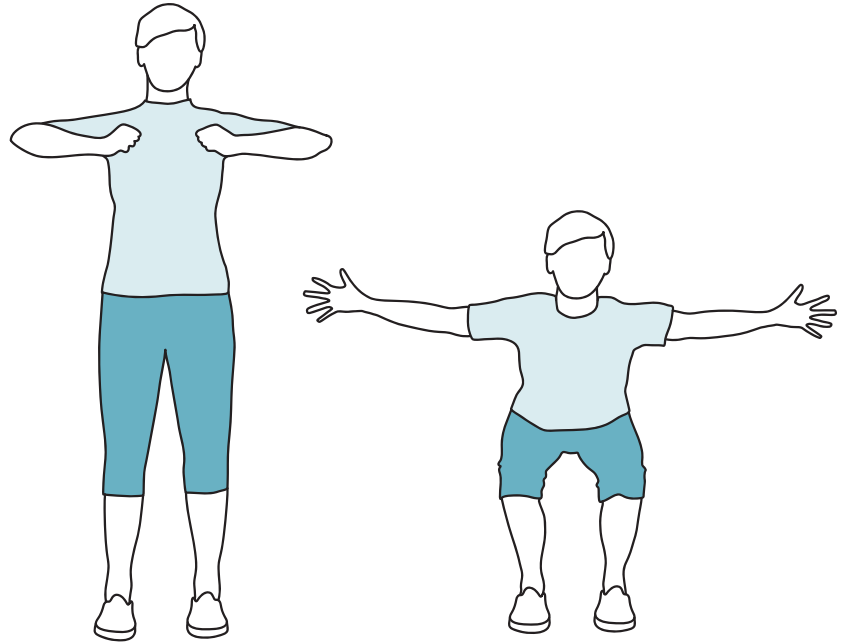
Power squats

PURPOSE

Strengthening leg muscles to improve sit-to-stand ability, while targeting arm-leg coordination and power.

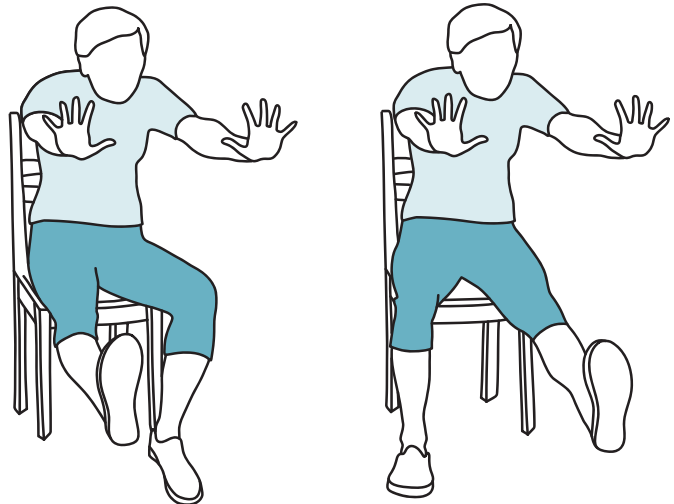
INSTRUCTIONS

1. Stand with your feet hip-width apart, elbows bent, with your hands clenched in fists on your chest.
2. Squat down in a sharp motion and open the arms to the side, making sure to spread the hand and fingers wide.
3. In one sharp motion, push your feet into the floor and stand back up with your arms returning to the start position (hands in fists, and elbows lifted high).



SEATED MODIFICATION

1. Start in a seated position with a straight back.
2. Straighten one leg out in front of you while pushing both arms forward with the hand/fingers spread open.
3. In a sharp motion, return to your seated position with arms at your hips, both feet on the ground, and back straight.
4. Repeat on the other side. With every repetition, try to stretch your arms a little further.





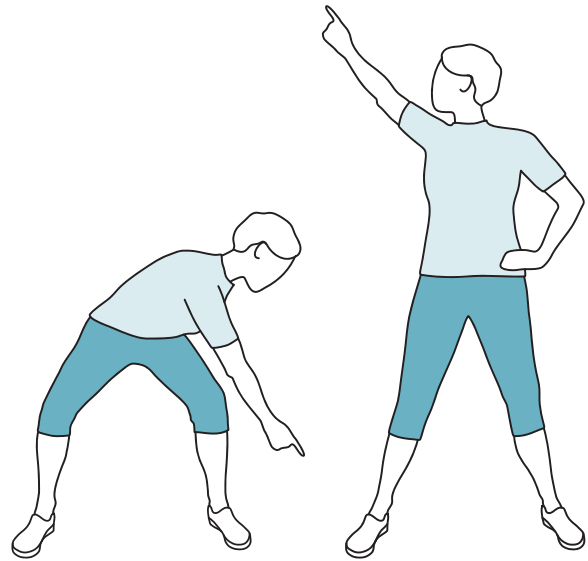
Disco

PURPOSE

Stretching the torso while maintaining balance and stability over your hips and legs.

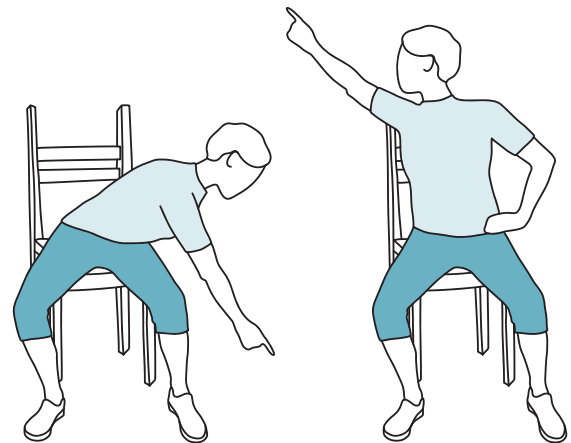
INSTRUCTIONS

1. Stand with your feet slightly wider than hip-width apart, with knees slightly bent. Put one hand on your hip, and hold the other clenched with the index finger pointing.
2. Reach your pointed hand down to the outside of the opposite shin/ankle.
3. In one sharp motion, rotate the body and stretch the pointed hand up towards a high diagonal. Imagine drawing a diagonal line across the room.
4. Repeat on the other side.



SEATED MODIFICATION

1. Sit with a straight back and both feet planted firmly on the ground.
2. Place one hand on your hip and reach your other hand down toward the opposite ankle, twisting your torso and pointing your index finger.
3. In a smooth motion, take the hand and reach it towards a high diagonal. Lead the movement with your breastbone rather than the arms. Only twist as far as you are comfortable and stable doing.



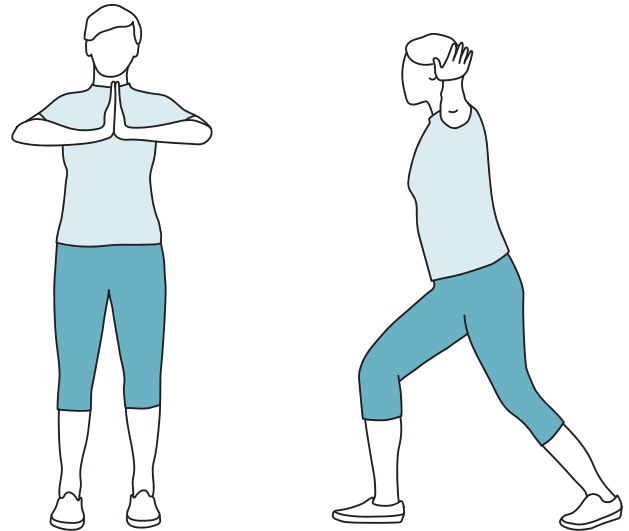
Warrior (modified)

PURPOSE

Practicing initiating turns and shifting weight while changing direction with the head, trunk, and legs.

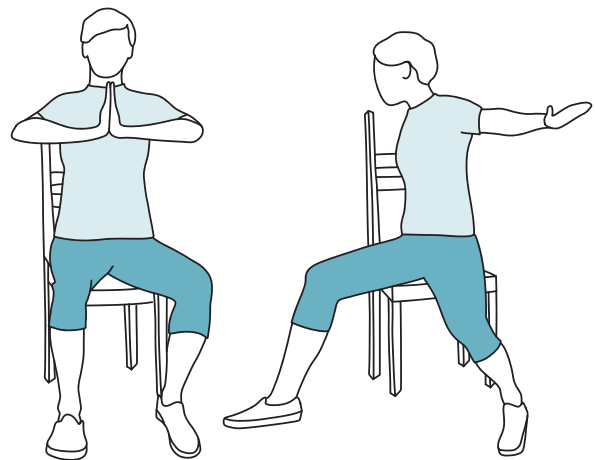
INSTRUCTIONS

1. Stand with feet hip-width apart and hands pressed together in prayer in front of the chest. Elbows should be lifted up high.
2. Lead with your breastbone and step out to the side, pointing your toes in the direction of travel, with your arms spread wide.
3. Bring the leg back into the starting position, with hands and arms returning to the prayer position.
4. Repeat on the other side.



SEATED MODIFICATION

1. In a seated position with a straight back, place your palms together in front of your chest in prayer position. Raise your elbows to ensure your arms are parallel with the ground.
2. Place your feet firmly on the ground in front of you, about shoulder width apart.
3. Leading with your breastbone, turn your upper body to the right, spreading your arms out wide at shoulder height, while stepping your right leg out to the side.
4. Return to your starting position before repeating the motion to your left.





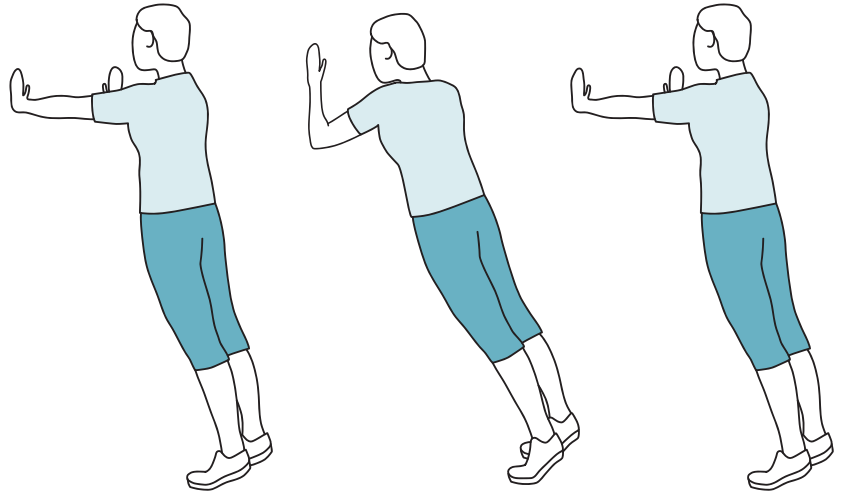
Push-ups (modified)

PURPOSE

Improving upper body strength and maintaining trunk control in movement.

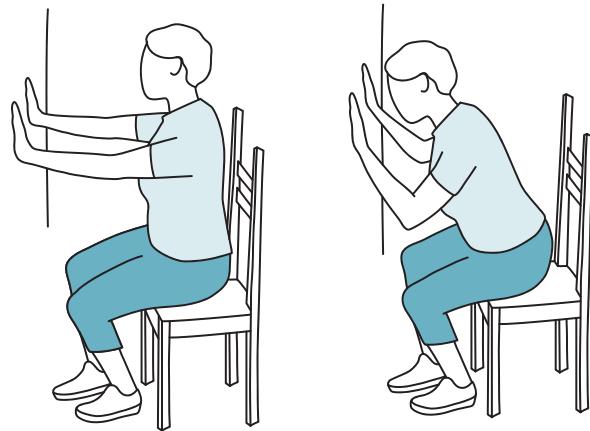
INSTRUCTIONS

1. Place both hands flat on a wall in front of you, with legs about 50cm away from the wall. Keep your arms straight and your body in one straight line.
2. Using arms only, lower your body towards the wall. Lead with the breastbone, keep your back straight, and avoid bending at the hip.
3. Push yourself away from the wall again. Make sure to keep your trunk rigid throughout this exercise.



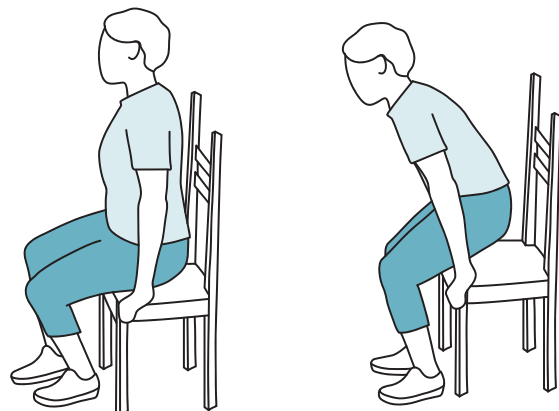
SEATED MODIFICATION

1. Sit facing a wall. Place your palms flat against the wall, with your hands at shoulder height.
2. Bending at the elbows, lower your shoulders and chest toward the wall.
3. Pause, then straighten your arms without locking your elbows, and return to your starting position.



ALTERNATIVE MODIFICATION

1. Sit with a straight back in a chair. Scoot forward so you are not touching the backrest.
2. Place your hands on the corners of the chair beside your knees. Slowly straighten your arms to hold yourself up, and hover your bottom off the chair.
3. Slowly return to a sitting position.



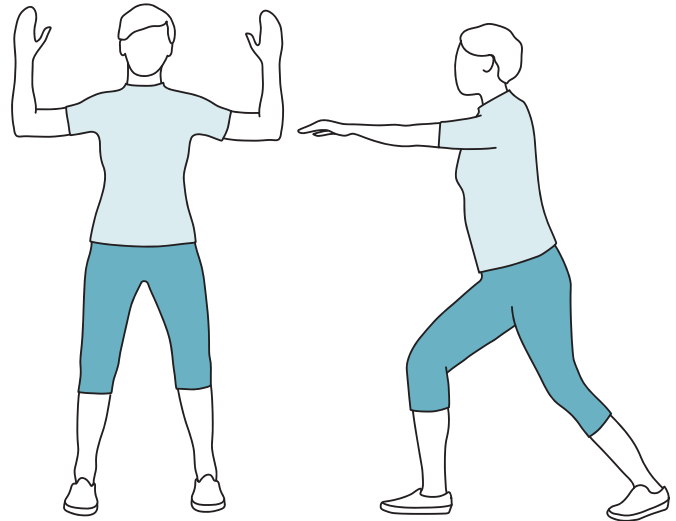
Robot turns

PURPOSE

Practicing turning while maintaining balance and trunk stability.

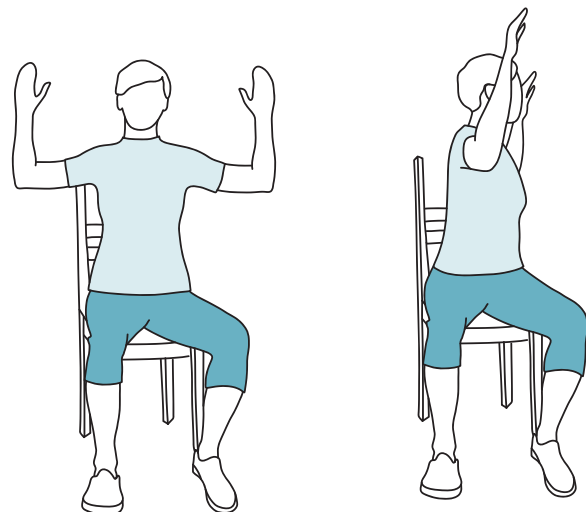
INSTRUCTIONS

1. Stand with your feet hip-width apart or slightly wider, with relaxed knees. Hold your arms up and out to the sides, elbows bent upward at 90-degree angles, with hands open.
2. In one sharp motion, turn your body to the right by pivoting on your feet, with toes pointing in the direction of movement, and reach your left arm straight in front of you.
3. In one sharp motion, turn your body back to the start position by pivoting your feet. Arms return to start position.
4. Repeat on the other side.



SEATED MODIFICATION

1. Sit tall without leaning into the chair. Place your feet firmly on the ground.
2. Hold your arms up and out to the sides, elbows bent upward at 90-degree angles, with hands open.
3. Twist your upper body and arms to the side, keeping your elbows and breastbone in a straight line.
4. Return to center before twisting in the other direction.





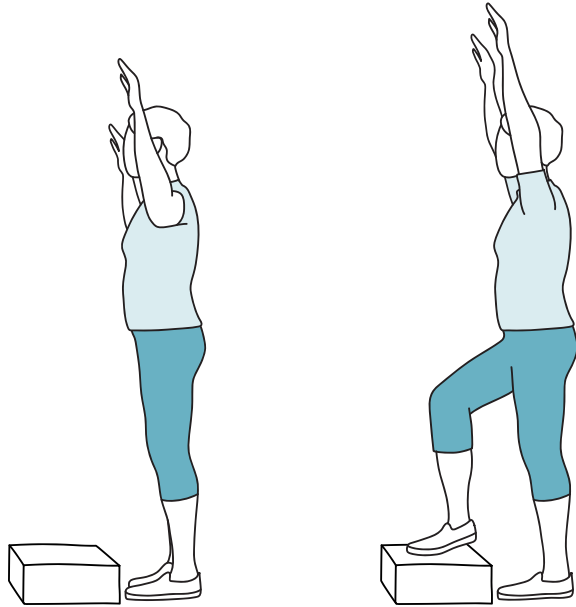
Toe taps

PURPOSE

Improving high stepping ability to navigate obstacles, as well as the ability to shift weight from one leg to the other.

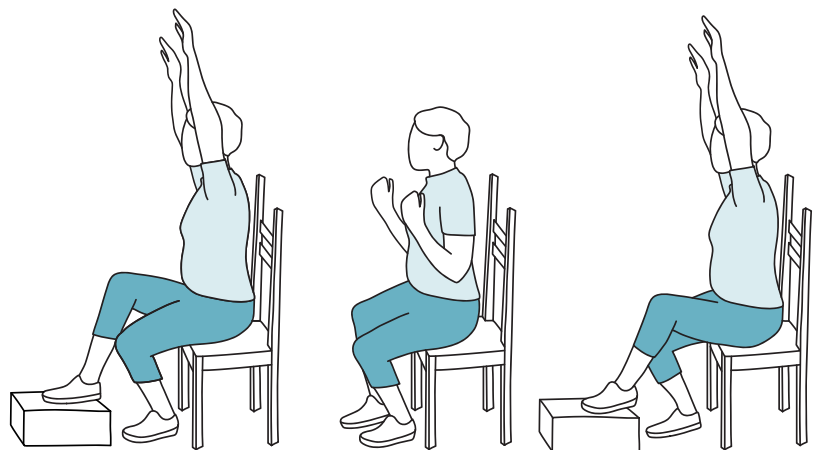
INSTRUCTIONS

1. Stand in front of a step (this could be a box, platform, or bottom step of your stairs at home). Hold your arms up and out to the sides, elbows bent upward at 90-degree angles.
2. Tap one foot on top of the step while opening the hands, and reaching your fingertips toward the ceiling.
3. Return to the start position and repeat on the other side.



SEATED MODIFICATION

1. Sit in front of a step (this could be a box, platform, or bottom step of your stairs at home), and place your feet flat on the ground. Then, lift one foot onto the step, raising your arms up toward the ceiling.
2. Place your foot back on the ground and lower your arms.
3. Repeat the motion with your other leg, returning both feet to the ground in between steps.



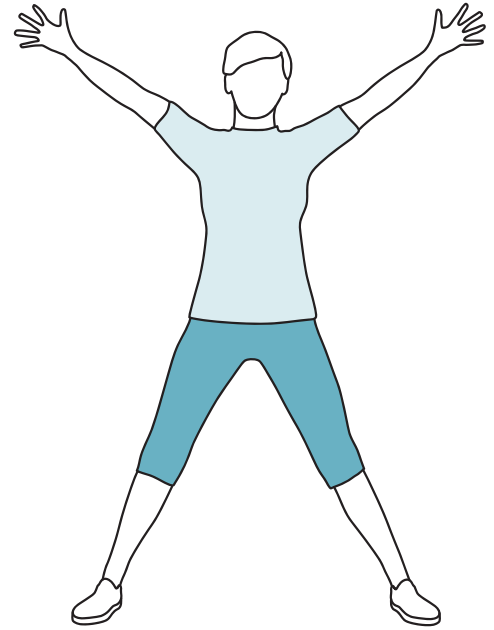
Movement contrast

PURPOSE

Improving agility in stepping and weight shifting between the legs while maintaining amplitude of movement.

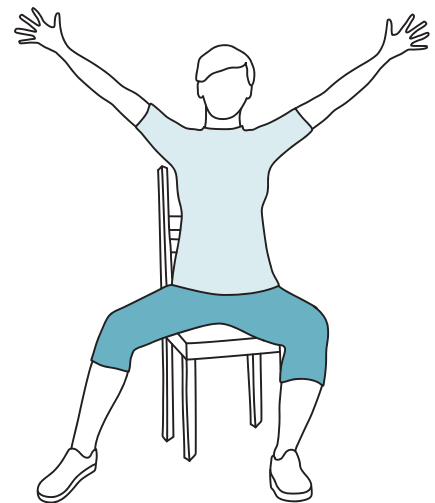
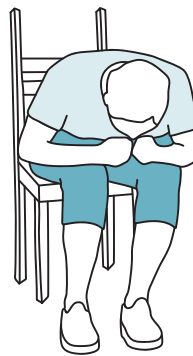
INSTRUCTIONS

1. Squat with your legs together (or close together) with arms bent into body as if curling into a small ball.
2. Stand up slowly, lifting the right leg as high off the ground as you can, and step out to the side as far as you can with arms wide open, spreading the hand and fingers.
3. Hold this position for 1-2 seconds, then lift your right foot high off the ground and back into the center to curl into a ball again.
4. Repeat on other side.



SEATED MODIFICATION

1. Sit with a straight back with both feet firmly on the ground in a chair. Curl your body into a ball by bending at the hip to bring your shoulders down toward your legs.
2. Sit up straight and spread your arms wide while stepping your right leg out to the side – making sure to open your chest while spreading your fingers wide.
3. Curl your body into a ball again, then repeat the same open-wide motion to the left side.





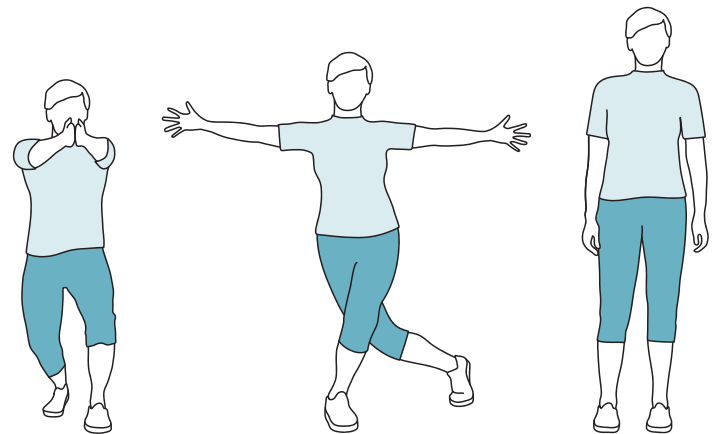
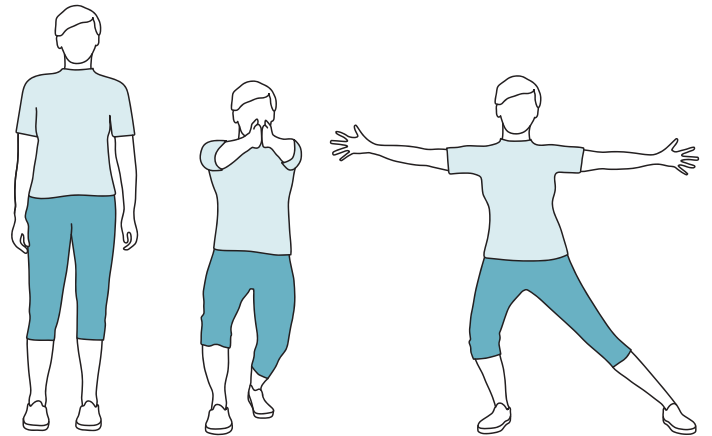
Clocks

PURPOSE

Practicing weight shifting and maintaining balance while stepping.

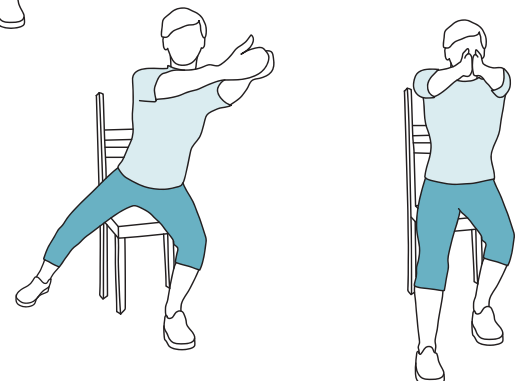
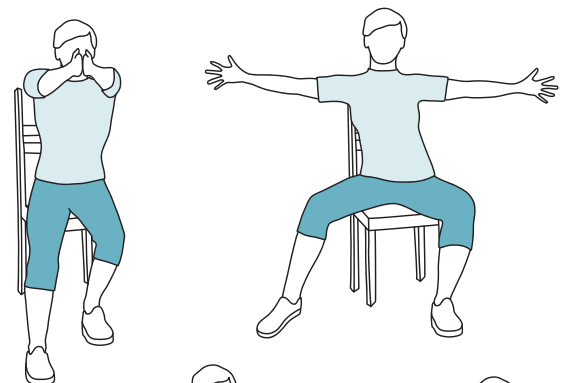
INSTRUCTIONS

1. Stand as if in the middle of a clock face, where your arms and legs are the arms of the clock.
2. Step your right foot forward to the 12 o'clock spot while reaching your arms forward, with hands pressed together. Return to the start position.
3. Step your right foot to the 3 o'clock spot while reaching your arms out to the side. Return to the start position.
4. Step your right foot to the 6 o'clock spot while reaching your arms forward with hands pressed together. Return to the start position.
5. Step your right foot to the 9 o'clock spot (crossing behind your left leg) while reaching your arms out to the side. Return to the start position and repeat on the left side.



SEATED MODIFICATION

1. Sit in a chair with a straight back. Imagine your chair is in the center of a clock, and your arms and legs are the arms of the clock.
2. Starting with your right leg, step your foot forward to the 12 o'clock position, clasping your palms together with arms extended in front of you. Return to your start position.
3. Step your right leg out to the 3 o'clock position, spreading your arms wide. Return to your start position.
4. Step your right leg out behind you to the 5 o'clock position, clasping your palms together in front of you. Return to your start position.
5. Repeat the motion with your left leg.



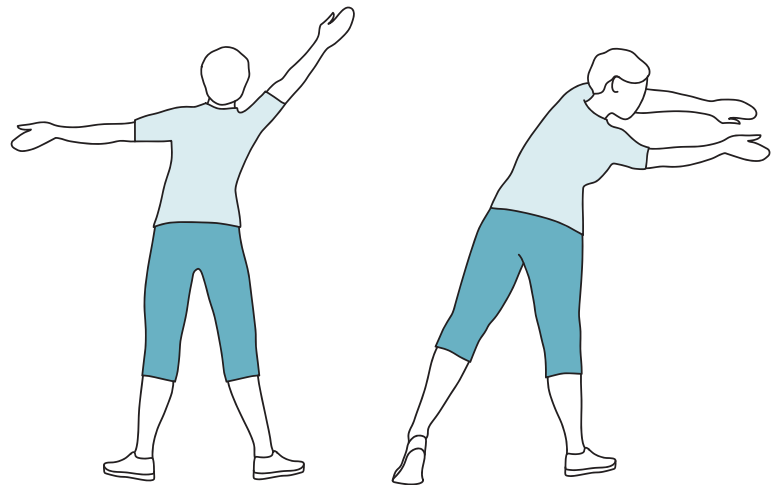
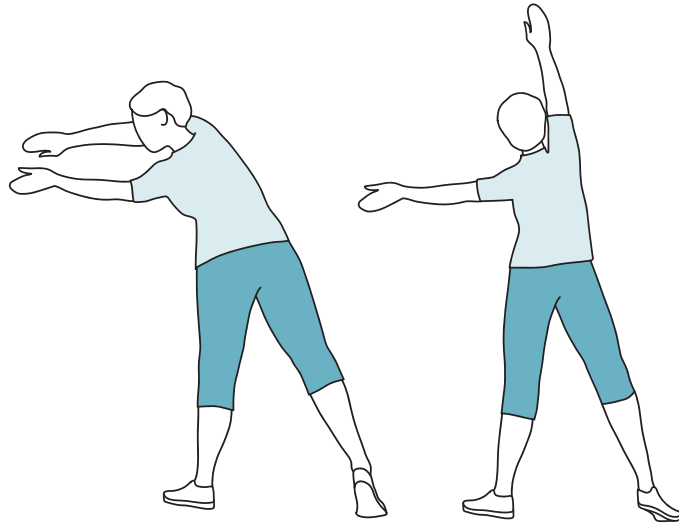
Window washers

PURPOSE

Improving range of motion in the trunk, and weight shifting from one leg to the other.

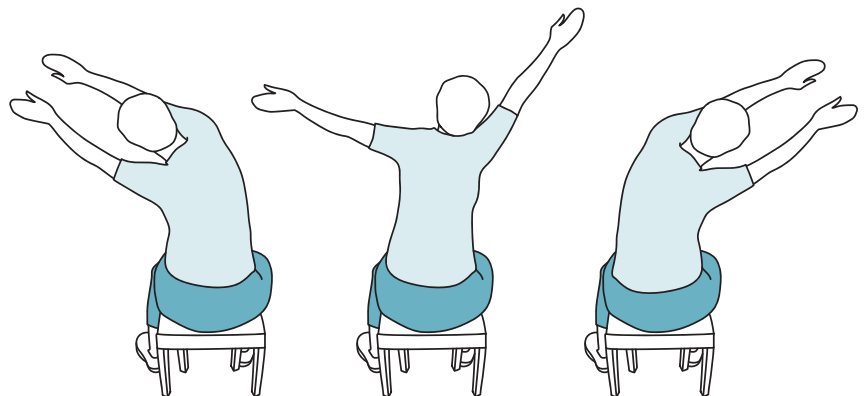
INSTRUCTIONS

1. Stand facing a wall with your feet wider than hip-width apart, with palms against the wall.
2. Reach both arms to the left, palms against the wall, and transfer your weight to the left leg.
3. Sweep your arms across the wall in a large arc shape, stretching upward and outward while keeping your palms on the wall, and bring them towards the right side.
4. While you do this, transfer your weight from the left foot to the right. The aim is to reach as far as you possibly can!



SEATED MODIFICATION

1. Sit in front of a wall with your feet placed firmly on the ground, with palms against the wall.
2. Reach your arms as far as you can to the left, still touching the wall.
3. Sweep your arms across the wall towards the right, drawing a big arc.
4. Repeat again towards your left.





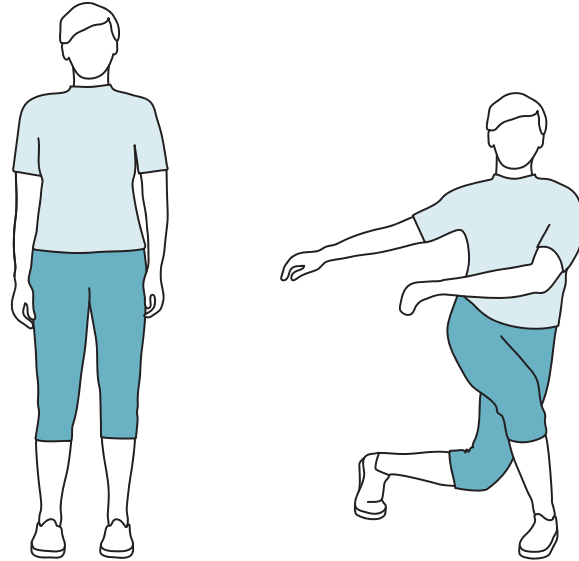
Skater lunges

PURPOSE

Strengthening hips and lower limbs, and improving balance while shifting weight and moving backwards.

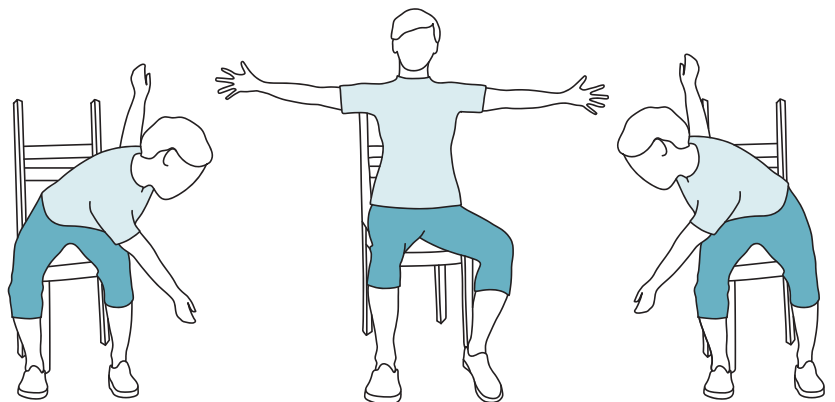
INSTRUCTIONS

1. Stand with your feet hip-width apart, and arms relaxed by your sides.
2. With your right foot, take a big step back diagonally behind your left leg into a lunge, and sweep your arms up to the left.
3. Hold for 1-2 seconds then return to start position.
4. Try to keep your upper body tall as you lunge and stand back up, as if travelling up and down in an elevator.
5. Repeat on the other side.



SEATED MODIFICATION

1. Sit with a straight back with your feet placed firmly on the ground, shoulder width apart.
2. Spread your arms out at shoulder level. Leading with your breastbone, twist your upper body down toward your right knee until your left arm is outside of your right knee.
3. Return to your seated position before repeating the movement to your left.



Cool-down Stretches

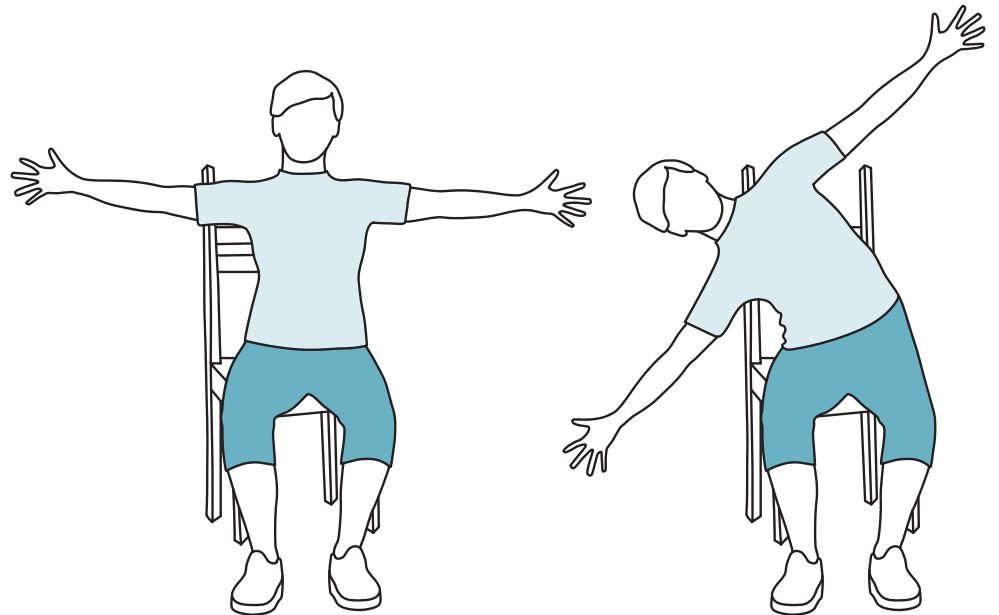
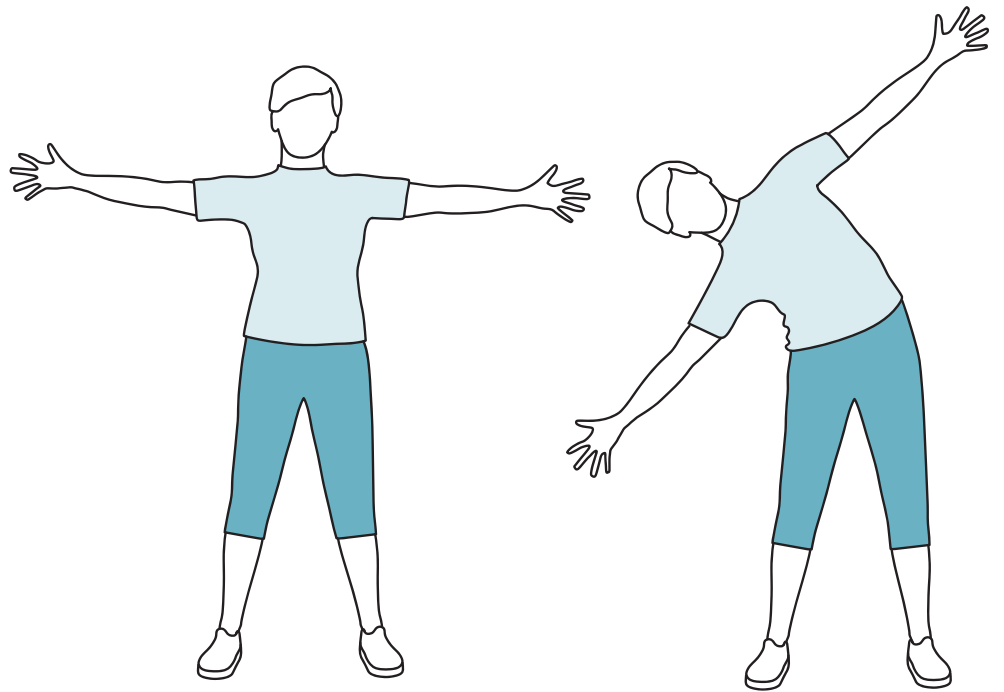


Side stretch

This stretch can be done in a seated or standing position. A chair without armrests is recommended.

INSTRUCTIONS

1. Sit or stand tall with your legs shoulder-width apart. Reach your arms up and out to the side, fingers spread wide.
2. Stretch to the side as if reaching your arms in a diagonal line, making sure to keep the breastbone facing forward.
3. Hold for 10-20 seconds, then repeat on the other side.

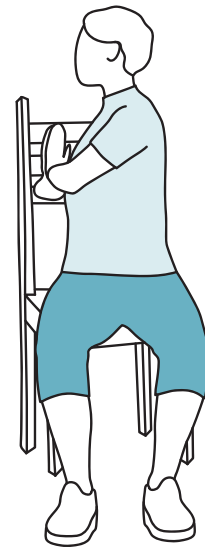
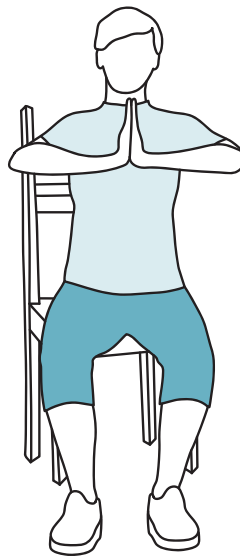
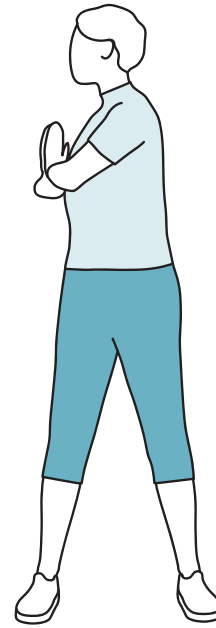
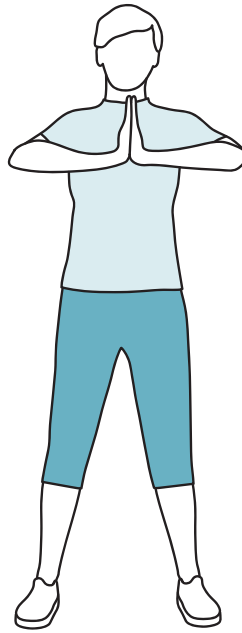


Trunk twist

This stretch can be done in a seated or standing position.

INSTRUCTIONS

1. Stand with your feet shoulder-width apart, holding your hands in prayer, pressing into your chest.
2. Rotate your trunk to the right by leading the movement with your breastbone.
3. Hold this stretch for 10-20 seconds, then repeat on the other side.

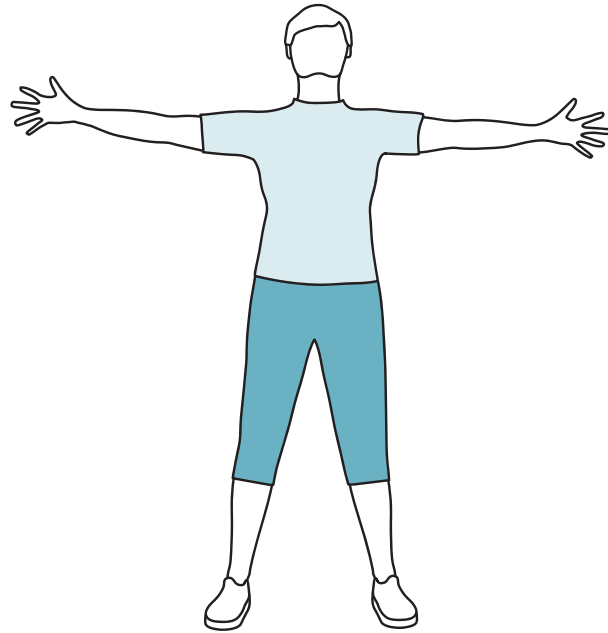




Back stretch

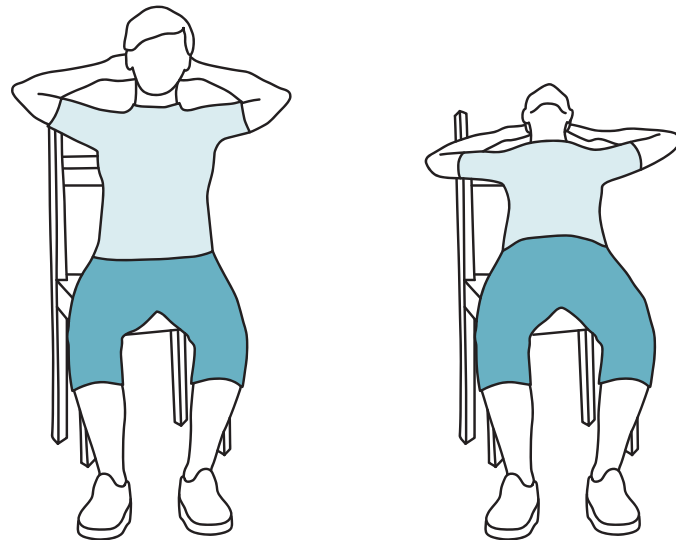
INSTRUCTIONS

1. Stand with your back against a wall, arms open.
2. Stretch arms back towards the wall, pressing your shoulder blades into the wall at the same time.
3. Hold this stretch for 10-20 seconds.



SEATED MODIFICATIONS

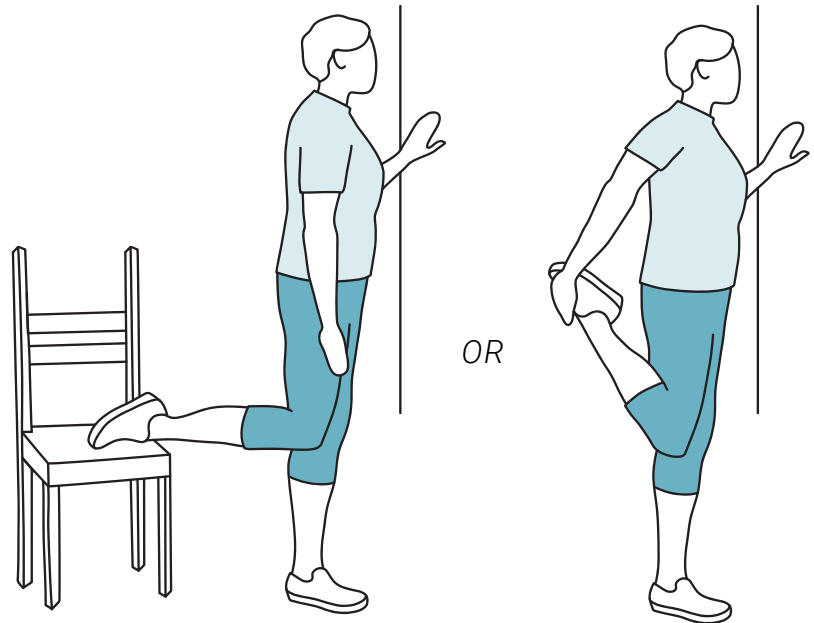
1. Sit back in your chair and place your hands behind your head.
2. Arch backwards over the back of the chair to feel the stretch in your back and chest.
3. Hold this stretch for 10-20 seconds. Be careful not to tip the chair.



Thigh stretch

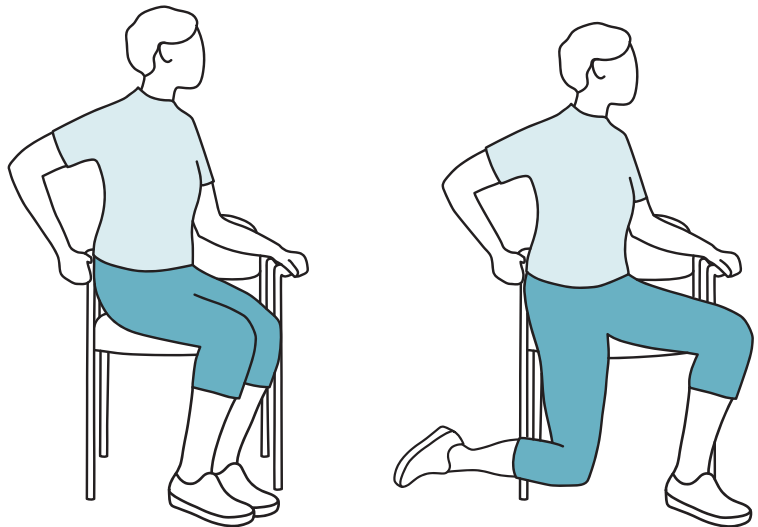
INSTRUCTIONS

1. Place your foot on a chair behind you. If you would like a challenge, you can also complete this stretch by holding your ankle or foot instead of using a chair.
2. Keeping your knees together, push your hips forward to stand up as tall as possible. Hold on to a wall if you need support.
3. Hold for 10-20 seconds, then repeat on the other side.



SEATED MODIFICATIONS

1. Rotate your body and legs to one side while sitting in a chair.
2. Reach your front knee towards the floor, and lean back with your torso.
3. Hold for 10-20 seconds, then repeat on the other side.

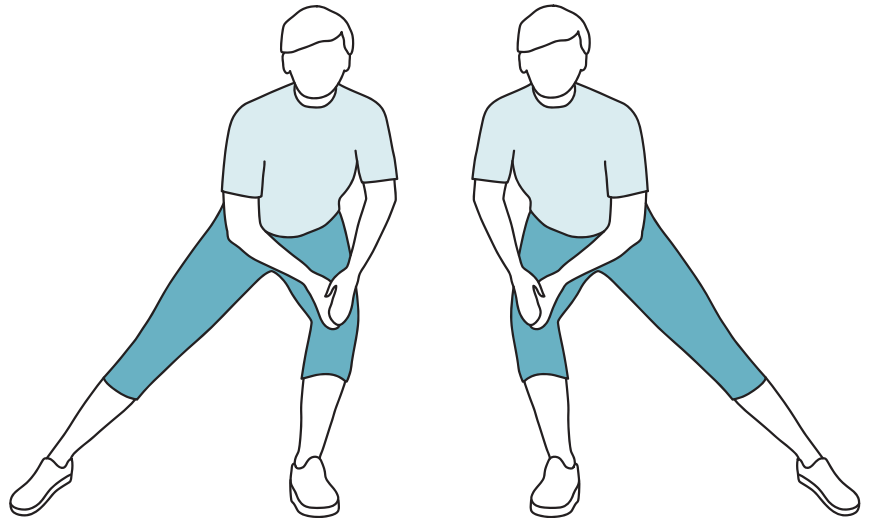




Inner thigh stretch

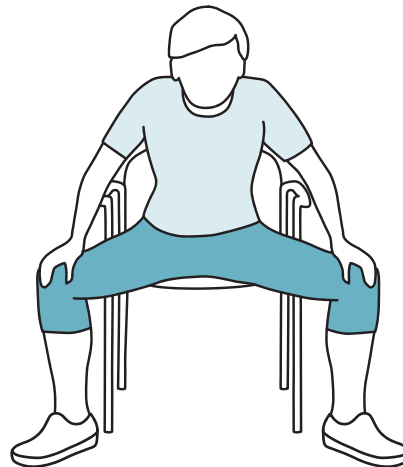
INSTRUCTIONS

1. Stand with your legs as far apart as possible and bring your hands to your right thigh.
2. While, keeping your left knee straight, bend your right knee and stick your bottom back as far as you can. You should feel a stretch in the inner thigh.
3. Hold for 10-20 seconds, then repeat on the other side.



SEATED MODIFICATIONS

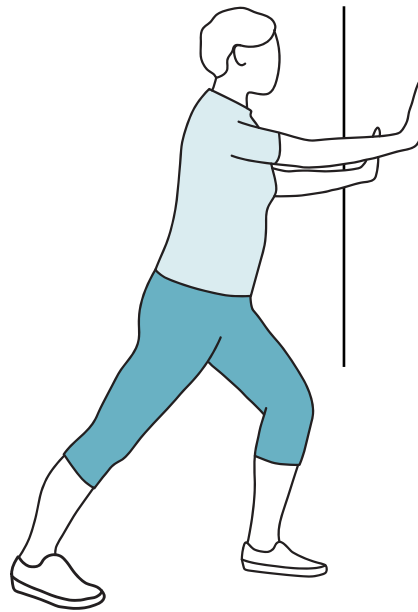
1. Sit with your legs as far apart as possible.
2. Place your hands on your knees and push the knees apart while leaning your trunk forward. You should feel a stretch in the inner thighs.
3. Hold for 10-20 seconds.



Calf stretch

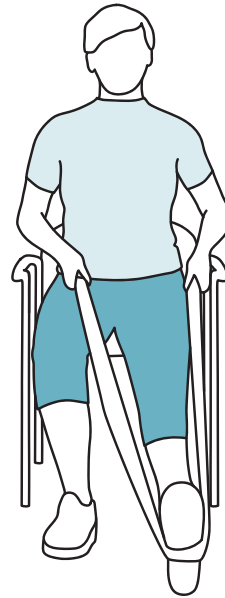
INSTRUCTIONS

1. Stand with your hands on the wall. Step one leg back as far as you can, and bend the front knee while keeping the back knee straight.
2. Reach the heel of your back foot towards the floor to feel the stretch in your calf muscle.
3. Hold for 10-20 seconds, then repeat on the other side.



SEATED MODIFICATIONS:

1. Sit tall and wrap a towel/strap around the bottom of your foot.
2. Keeping the knee straight, pull the foot up towards your nose.
3. Hold for 10-20 seconds, then repeat on the other side.





My Exercise Plan

My name:

My exercise partner:

My reasons for exercising:

For example: "Exercise will help improve my balance/strength/agility," or "Exercise may help to slow the progression of my PD," etc.

What I want to achieve this month:

What I want to achieve this year:

The date I plan to start my exercise routine:



Weekly Goals

Start small to ensure success and to avoid feeling overwhelmed. However, your goals also need to be challenging! Make your goals harder as you get more used to exercise. After each week, reflect on your accomplishments and how you feel. Partial achievements should be celebrated too, so be sure to note any progress you've made!

For example: Start with *"I will do 20 sit-to-stands everyday,"* or *"I will walk at least 5,000 steps everyday,"* etc.

Week 1

Goal:

Reflections:

Week 2

Goal:

Reflections:

Week 3

Goal:

Reflections:

Week 4

Goal:

Reflections:



Exercise Calendar

Mark the days you have done your exercises to help you stay on target!

Month:

Sun	Mon	Tue	Wed
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Thu	Fri	Sat	Notes
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