

Preventing Falls

A Guide for People Living with Parkinson's



Parkinson Canada

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Letter from the CEO



I truly hope that you will find this guide to be an extremely helpful resource.

At Parkinson Canada, we're proud to say that vital support services and valuable education materials like this Falls Prevention guide just wouldn't be possible without contributions from friends like you.

It's only thanks to all the compassionate donors who care so deeply for Canadian families living with Parkinson's that we can provide you with this resource today.

Like you, I too have a very personal reason for caring about Parkinson's research, support and services. When I was a young child, my grandfather passed away from complications of Parkinson's disease.

I still remember my grandfather's mobility issues, the tremors, and the way Parkinson's eventually robbed him of his ability to do the things he enjoyed.

I'm very proud to work together with such caring donors to help you and thousands of others relying on Parkinson Canada. Your support today will bring hope to countless people.

Please contact us at 1-800-565-3000 or www.parkinson.ca if you or someone you love needs our help.

We're always here for you. *No Matter What.*

Thank you.

Karen Lee, PhD

President & CEO, Parkinson Canada

Disclaimer

The information contained in this book does not represent medical advice. Consult your healthcare team and Parkinson Canada to help you make informed decisions that are best for you or your care recipient.

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Introduction

Falls are a leading cause of injury and can result in hospitalization or loss of independence.

Falls can happen to anyone, anywhere, anytime. Having Parkinson's will increase your risk of falls.

Prevention and planning can reduce your risk for falls. Not all falls can be prevented, but there are things you can do to keep yourself safe and reduce the number of falls and injury.

This booklet will help identify some of the causes of falls and suggest simple and practical suggestions to keep you active, independent, and on your feet.

This booklet may be helpful for people with Parkinson's, family members, friends, or care partners.

The Risk of Falls

There is no single reason why people fall. You are more likely to fall if you have more risk factors.



This booklet also contains information on:

- What to do if you have a fall
- Exercise – keeping active
- Strength and balance exercises for at home
- My Action Plan

This booklet will explore the risk factors for people with Parkinson's and provide strategies you can use to prevent falls.

Chapter 1: Medical Illnesses



Medical Illnesses

New Medical Illnesses

People with Parkinson's can get sick like anyone else. A new (acute) medical illness, such as a bladder infection, flu, or pneumonia can make your Parkinson's symptoms worse, which may increase your risk of falls. You can recover from these temporary illnesses with appropriate treatment and time to recover.

Ongoing (chronic) Medical Illnesses

In addition to your Parkinson's, you may also have other ongoing health problems, such as diabetes, arthritis, or a heart condition, which may also influence your Parkinson's symptoms. Medical conditions increase your risk of falls. It is important to address all medical illnesses.

What you can do (medical appointments):

- Keep your medical appointments and follow the treatment plan provided.
- Ask questions if you don't understand your treatment plan.
- Have someone accompany you to the appointment and take notes.
- Talk to your healthcare team to see if a mobility aid is right for you.

What you can do (stay active):

- Monitor your activity level.
- Avoid spending a lot of time in bed.
- During the illness, **stay physically active** as much as you safely can to maintain your strength and balance.
- After the illness, gradually increase your activity to your previous level.
- Ask for help if you need it.



Chapter 2: Medications



Medications

Parkinson's medications aim to provide you with the best control of your symptoms with the least number of side effects. Ideally these should result in your best mobility.

Learn About Medications and Their Possible Side Effects

All medications, including non-prescription medications (such as Graviol™) and supplements, can cause side effects. Sometimes side effects from your medications (including those to treat Parkinson's) may increase your risk of falls. Speak with your healthcare providers if you are experiencing any of the following side effects:

- **Dizziness** with changing positions, such as moving from a lying to standing position. This may be due to a drop in blood pressure (**postural hypotension**).
- **Excessive daytime sleepiness or fatigue.**
- **Insomnia** (unable to fall asleep or go back to sleep in the night).
- **Changes in thinking or new confusion.**
- **Swelling in lower legs (peripheral oedema).**
- **Involuntary twisting or turning movements (dyskenesia)** can occur, especially with too much Parkinson's medication or as you come 'off' your medication.

It is important to look for the above side effects when starting new medications or when increasing a current medication dose as you may have a higher risk of falls.

Medications

Parkinson's Medications

Some Parkinson's medications help you move more easily which decreases your risk of falls. In the early stages of Parkinson's you may not notice your symptoms returning when you miss a medication dose. However, as Parkinson's progresses, your body will require more medication and you will notice your Parkinson's symptoms returning before the next dose. This is called **wearing off**. In the "off state" you may be at increased risk of falls. For example, you may feel stiffer and slower, or your balance may be worse. Your medication schedule can be adjusted by your healthcare team based on your specific symptoms and to meet your body's changing needs. Skipping a dose of medication or taking your dose late, when you already begin to feel your Parkinson's symptoms, can increase your risk of falls.

What you can do:

- **Always take your Parkinson's medication(s) on time and as prescribed.**
For example, you may be directed to take your medication on an empty stomach or with food. Most people with Parkinson's find protein-rich foods affect levodopa-containing medication absorption and should have meals at least 30-60 minutes after the medications. If nausea is a problem, take levodopa-containing medication with soda crackers or Melba Toast. Talk to your nurse, pharmacist, or doctor about what advice is right for you.
- Use a number of strategies to ensure you take your medication on time. If you have difficulty remembering to take your medication (or how much to take), you can:
 - ask your pharmacist to blister — pack your medications;
 - use a pill timer;
 - set your cell phone or watch timer as a reminder; or,
 - include your care partner.
- Keep a symptom/medication diary. Your healthcare providers use the diary to assess your response to medication therapy, look for a pattern with your symptoms, and adjust your medications to improve your mobility and reduce your risk of falls.
- Always carry extra doses of medication with you. This can be helpful when you are away from home, but also if you are in your home and experience a sudden return of your symptoms.
- When on vacation, bring more medication than you would typically use in case your travel plans change.
- Tell your healthcare providers when you experience a sudden or gradual change in your Parkinson's symptoms.

Medications

Dizziness and Postural Hypotension

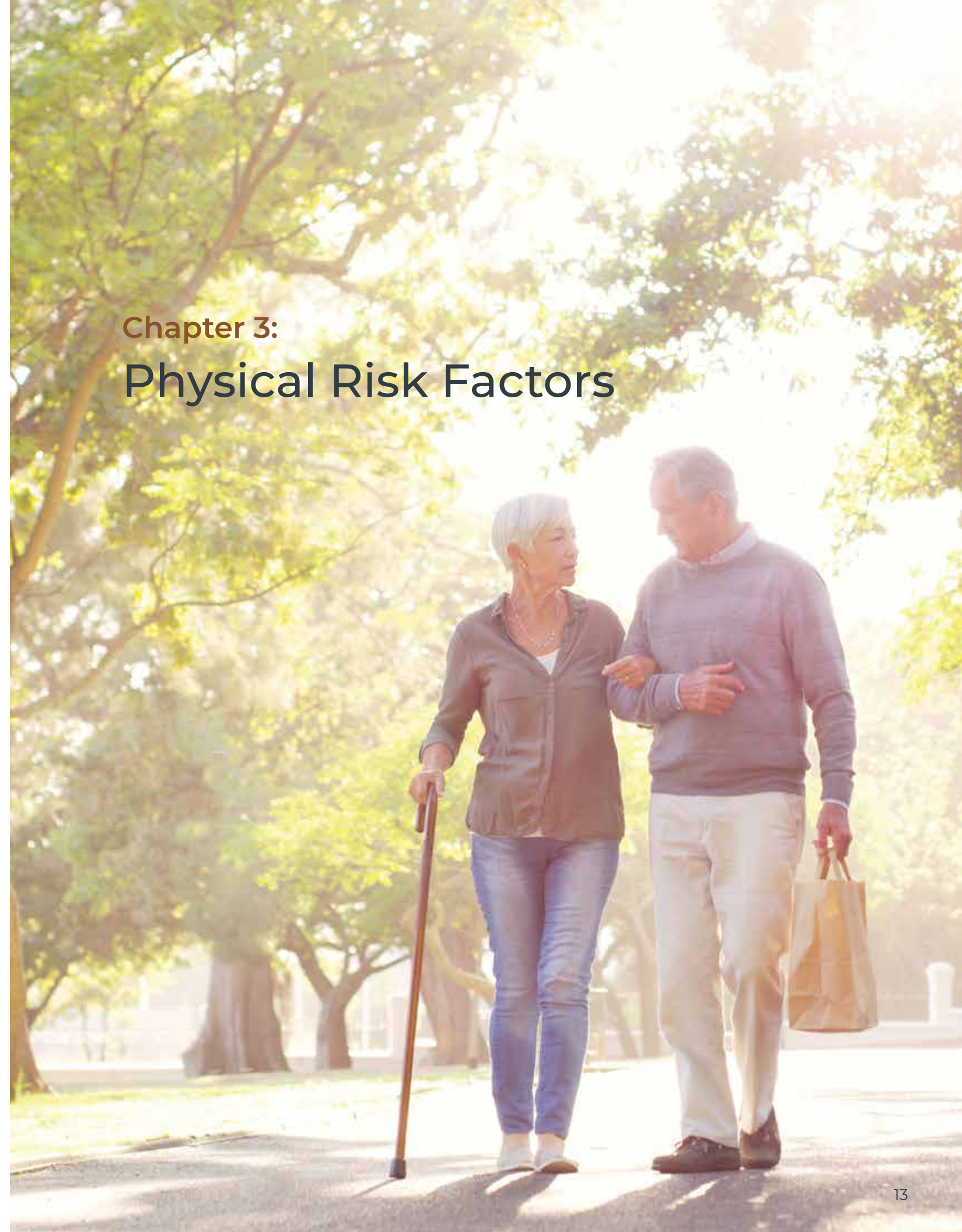
Parkinson's disease may cause changes in your blood pressure which can affect moving from lying down or sitting to a standing position. A sudden drop in blood pressure is called **postural (or orthostatic) hypotension**. It can make you feel light-headed, dizzy, or weak when you first stand up. These feelings can cause you to fall. Other things can worsen your dizziness, such as alcohol or medications (including certain blood pressure and prostate medications). Dizziness can lead to falls, so make changes to reduce your dizziness and falls risk.

What you can do to help with postural hypotension:

- Speak to your nurse, pharmacist, or doctor to review your medications.
- When getting up from lying position, sit for a moment before standing up.
- Stay well hydrated.
- Avoid alcohol if it affects your dizziness.
- Avoid standing too long in hot showers if they affect your dizziness.
- Ask your healthcare providers if more salt or less caffeine is right for you.
- Before getting up, try a foot-ankle pump action to start the blood moving (pump your ankles up and down or in circles).
- Engage in more chair exercises or recumbent biking to improve circulation.
- Avoid breath-holding or straining during exercise.
- Talk to your healthcare provider about what kind of compression garment may be right for you, such as full-length, fitted compression stockings on your legs or an abdominal binder (put on before rising from bed and taken off when lying down).
- Sleep with the head of your bed elevated 10 cm.

Remember to exercise when you are moving well and feeling the positive “on” effects of your medications.

Chapter 3: Physical Risk Factors



Physical Risk Factors

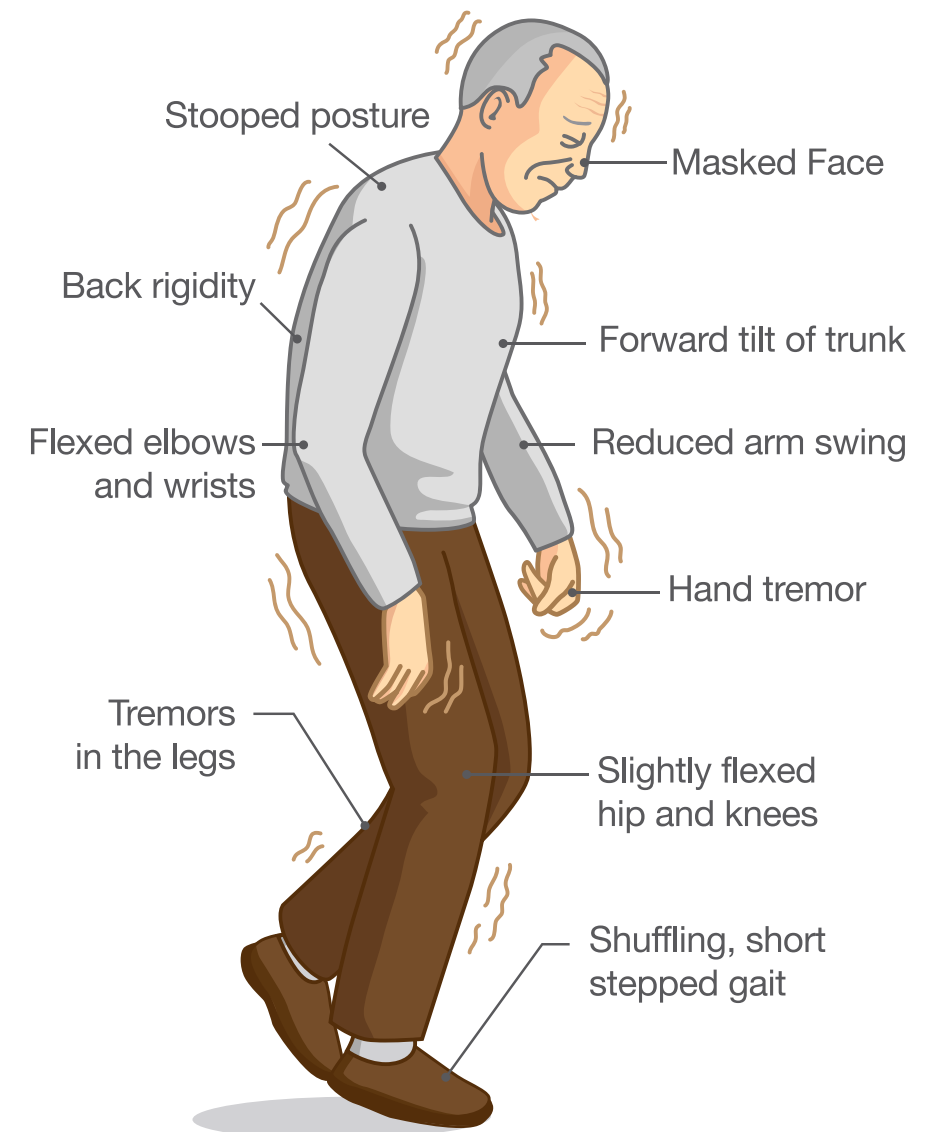
Over time Parkinson's can change your body and these changes may increase your risk of falls. Parkinson's often includes motor symptoms such as tremor, slowness (bradykinesia), stiffness (rigidity), and impaired balance (postural instability). Can you reduce your falls risk by changes to any of the following physical risk factors? More information on exercise can be found on page 39.

Physical Activity Level

- Being physically active improves mobility and prevents falls.
- However, moving too quickly or without the right mobility device may increase your falls risk.
- **What you can do:** Speak to your physiotherapist about a personalised safety plan and strategies to increase your physical activity. Read more in the Moving Safely section (page 20). See page 52 for strategies about walking and page 40 for information about exercise.



Physical Risk Factors



Posture

- A stooped, rigid stance can lead to difficulty moving or falls.
- **What you can do:** Speak to your physiotherapist about strategies and exercises to address flexibility, strength, balance, or endurance.

Vision

- Notice any changes in your vision, such as blurred or double vision.
- **What you can do:** Keep yearly eye appointments to check that you have the right glasses..
- Keep your environment clear of tripping hazards and ensure you have adequate lighting

Physical Risk Factors

Pain

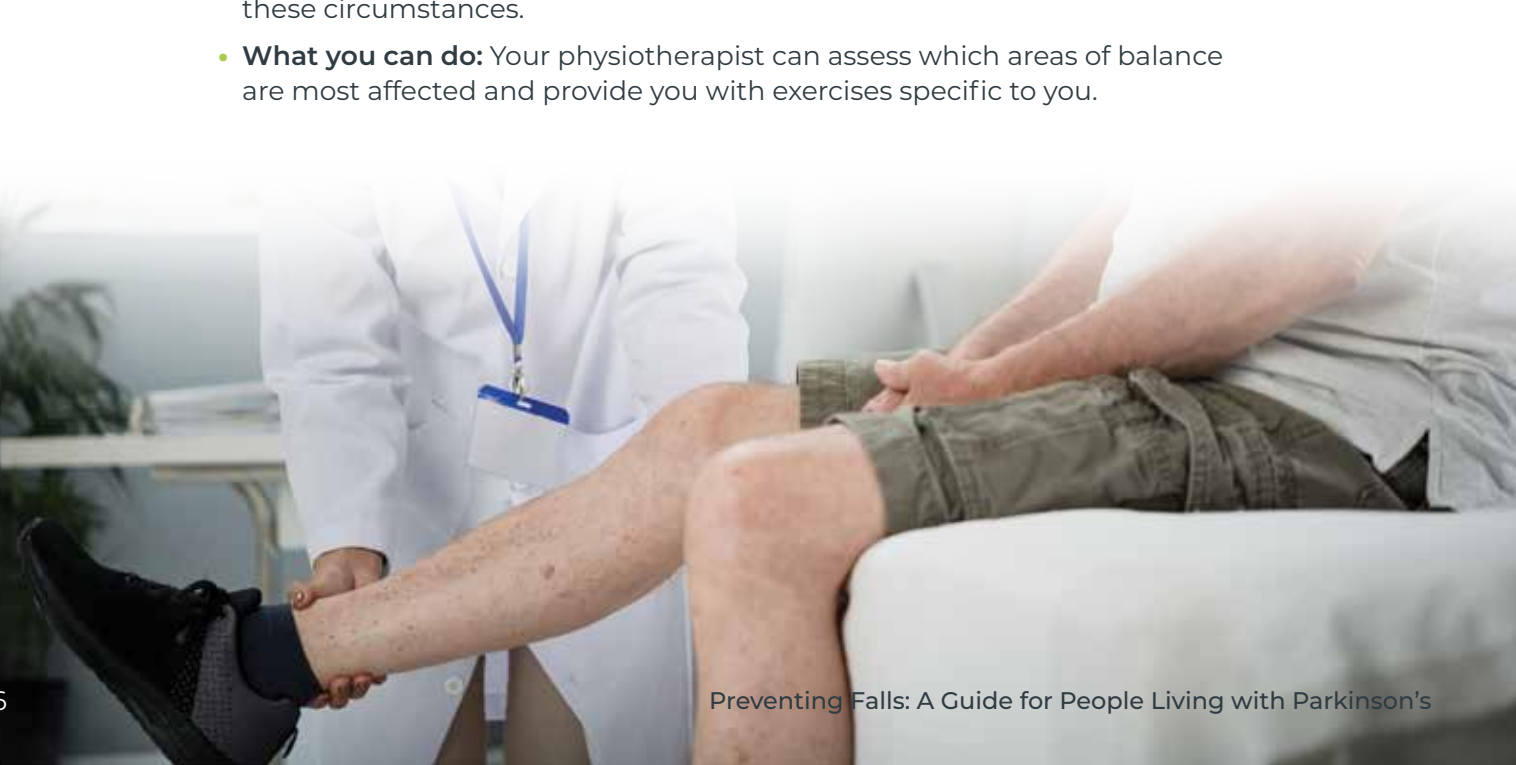
- People move differently when in pain, which may increase your risk of falls.
- **What you can do:** Speak to your healthcare team for strategies to address pain. You may be provided with pain medications so that you move more freely.

Strength, Flexibility, and Endurance

- Muscle weakness (especially in the legs) can increase your risk of falls.
- Physical activity and exercise are important for maintaining your strength, flexibility, and endurance, which in turn prevents falls.
- **What you can do:** Speak to your physiotherapist about ways to exercise to maintain your strength, flexibility, and endurance (see exercise information on page 39).

Balance

- To keep your balance, you use information from your eyes, balance organs (inner ear), and joints. Balance is a complex interaction and a lot of work for your brain to calculate.
- Over time, people with Parkinson's disease lose their balance reactions, for example they may fall and not be able to catch themselves in time to prevent a fall.
- Balance can be harder in certain situations, such as being tired, when nearing the next dose of medication, walking in unfamiliar environments, or doing two things at once (such as walking while holding a cup or walking while talking to a friend). Take extra caution during these circumstances.
- **What you can do:** Your physiotherapist can assess which areas of balance are most affected and provide you with exercises specific to you.



Physical Risk Factors

Walking Patterns

- Changes in your walking pattern may increase your risk of falls. For example, walking with shuffling feet, or difficulty with turning, backing up, moving around obstacles, or changing direction.
- **Freezing** may also occur, where your feet feel glued to the ground so that you are unable to move (page 25).
- Other changes in walking that may need to be addressed include stiffness (rigidity), slow movements (bradykinesia), or walking with short, rapid steps (festination).
- **What you can do:** Speak to your physiotherapist for a walking assessment and strategies, exercises, or gait aids to improve your walking. .

Dyskinesias

- Involuntary twisting or turning movements of the head, body, legs or arms can lead to falls.
- **What you can do:** Speak to your healthcare team about medications and strategies for dyskinesias.

Postural Hypotension

- Feelings of lightheadedness, dizziness, or weakness when you first stand may cause falls.
- **What you can do:** Speak to your doctor if you are feeling light-headed, dizzy, or weak when you stand up and read the suggestions on page 12.



Physical Risk Factors

Fatigue and Sleep

- Fatigue can lead to falls. Fatigue can be caused by a lack of sleep or be a side effect of medications.
- Poor sleep hygiene (or habits) can cause daytime fatigue – this includes being awake at night and sleeping too long during daytime hours.
- Sleep apnea is a condition which affects your ability to breathe well at night which may cause daytime fatigue. You may need a sleep study test to identify sleep apnea.
- Frequent nighttime urination can disrupt sleep and cause daytime fatigue.
- Some people experience vivid dreams that wake them up which can affect sleep.
- Restless legs syndrome may prevent someone from getting comfortable at night.
- **What you can do:** Speak to your healthcare team about medications and strategies to improve sleep.

Stress, Depression, and Anxiety

- Stress, depression, and anxiety can affect your sleep and energy as well as your confidence to walk.
- Being anxious can affect your attention, worsen freezing of gait, and increase fear of falls.
- **What you can do:** Consider relaxation techniques and the strategies under Moving Safely (page 20) or speak to your healthcare team.

Make a Plan:

- Set a regular bathroom routine.
- Keep a night light on your way to the bathroom.
- Leave a urinal or a commode chair by your bedside.
- Talk to your doctor who may suggest treatment options if you are experiencing bladder problems

Bladder Problems:

- Bladder problems such as overactive bladder or urgency can increase your risk of falls.
- Night time toileting is especially challenging due to fatigue, wearing off, and low light.

Chapter 4: Moving Safely



Moving Safely

Moving Safely

Moving allows for an enjoyable life and keeps you strong, but it also increases your risk of falls. Many people with Parkinson's have to deal with two opposing challenges: some people take too many risks, while others avoid moving as they are fearful of falls. Avoiding moving leads to deconditioning and an increased risk of falls. It's a balancing act to learn to keep moving safely.

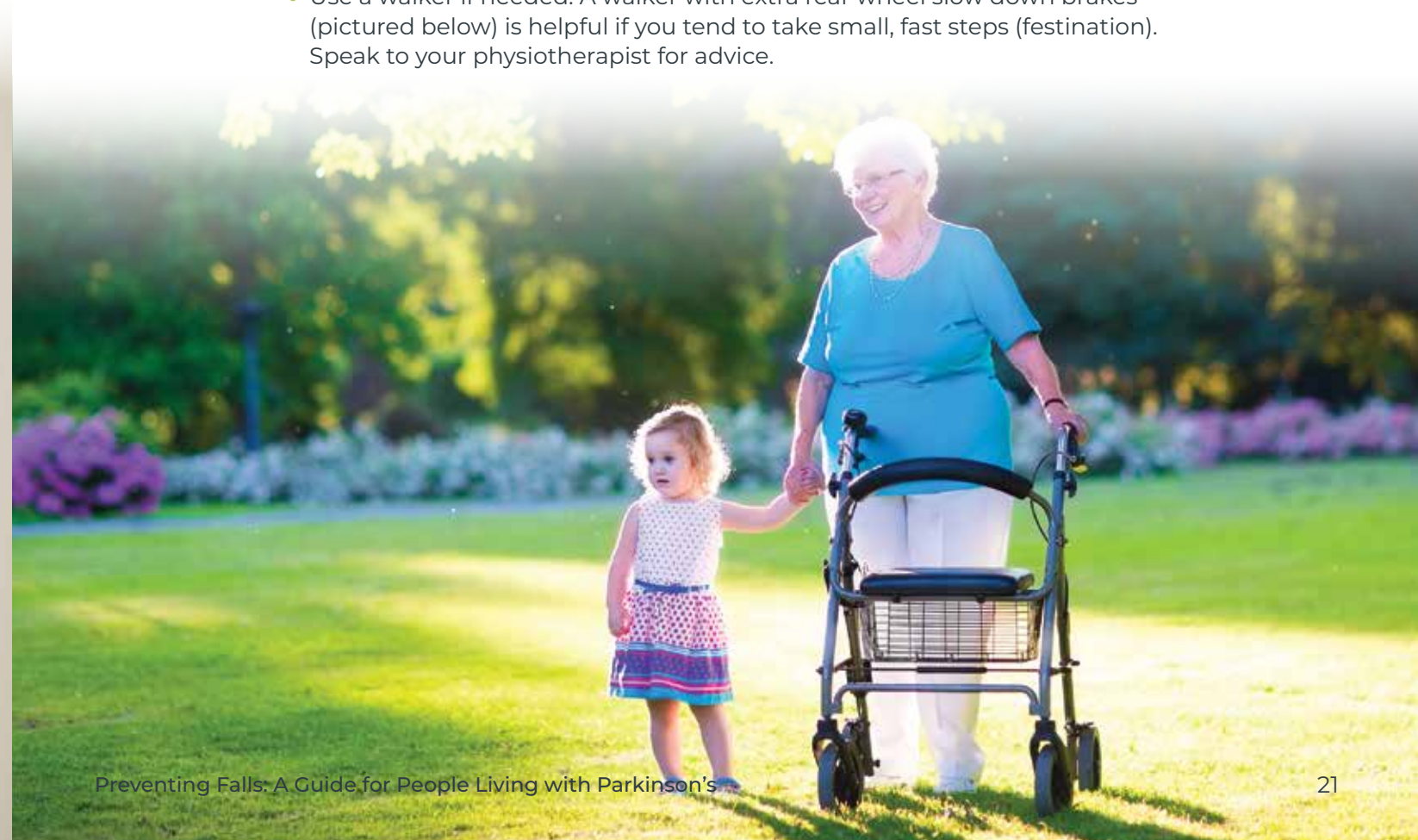
We all sometimes take unnecessary risks that can increase our risk of falls. Many people with Parkinson's do things the way they used to do without remembering that these activities could now result in a fall, such as climbing onto furniture to change a light bulb.



Moving Safely

What you can do:

- Sit down to dress or bathe.
- Sit down if possible while doing chores.
- Ask for help to carry or move heavy or bulky objects.
- Take a moment to plan your actions before moving.
- Avoid sudden movements or quickly changing positions.
- Take care when reaching forward (never lean your belly too far forward over your feet).
- If you have to lean forward, keep your feet wide apart, one foot in front of the other, and stand directly in front of what you are reaching for. You may need to hold on to a counter or sturdy support while leaning.
- Wear sturdy, lace-up or Velcro® shoes. Shoes should be comfortable, not too tight or loose. Thin soles are better than thick because you can feel the ground better.
- When walking, emphasize putting your heel down first and then pushing off with your toes. Say to yourself, "heel-toe-off" and repeat this as you walk.
- Walk with a space between your feet so that you have a wider base of support.
- Use a walker if needed. A walker with extra rear wheel slow down brakes (pictured below) is helpful if you tend to take small, fast steps (festination). Speak to your physiotherapist for advice.



Moving Safely

- Turns can be challenging. Turn in a large circle when possible.
- Take care when backing up. Try using bigger steps or hold on to something if possible.
- Use a long-handled reacher for objects up high or on the floor.
- Keep one hand free to hold the handrail when going up/down the stairs.
- Avoid doing two things at once (dual-tasking), such as talking and walking at the same time.
- Avoid standing on chairs, stepladders, or ladders.
- Avoid rushing to get things done or answering the phone; let the answering machine/voicemail take the call.
- Consider increasing your energy by taking an afternoon rest. Limit your rest to one hour maximum.
- Consider investing in a personal alarm system (or carry a mobile phone with you at all times) so that you can get help as soon as you fall.
- Speak to your physiotherapist or occupational therapist for advice specific to you.



Chapter 5: Fear of Falls & Freezing



Fear of Falls & Freezing

A **fear of falling** may lead to a more inactive life, such as avoiding exercise or social outings. This is especially true if you've fallen in the past.

Keeping active is important. It's important to strike a balance between being careful and still leading an active life. In other words, you need to learn to move safely.

Not all falls can be prevented, but you can learn to move safely and stay active.

What you can do

- Maintain your strength, flexibility, balance, and endurance through exercise.
- Exercise can also increase your confidence and ability to move (page 39).
- Learn strategies to move safely (page 20).
- Learn how to get up from the floor safely after a fall (page 38).
- "Freezing" can cause people to be afraid of walking. If you are affected by freezing, see the information below or speak to your healthcare providers.

Should I use a cane, walking poles, or a walker?

- Walking aids must be correctly fitted to improve safety and independence.
- Speak to a physiotherapist or occupational therapist to help you choose the right equipment and be sure that it is correctly fitted to you.

Protective equipment

- Consider hip protectors.
- Consider other protective equipment, such as knee or elbow protectors.
- For people who fall regularly or are at risk of head injury, consider protective head gear. Head gear can range from light bump protection to full impact helmets, such as the crash toque.

Fear of Falls & Freezing

Freezing of Gait

Many people with Parkinson's experience **freezing** where their feet suddenly feel stuck or feel glued to the floor, making them unable to move forwards, backwards, or turn. Freezing can lead to a fall. Freezing can last for a few seconds to a few minutes.

What you can do

- Visualize where you are going and plan your movement first.
- When going through a doorway or getting into an elevator, focus a point beyond the doorframe, take big steps towards that point.
- When approaching a chair to sit down, concentrate on walking to the arm on the far side of the chair before turning to sit down.
- Try a high step/march when turning (keep your rhythm going).
- Turn in big circles and, when possible, in open spaces.
- Teach your caregivers to avoid giving you a lot of instructions. Short and simple statements work best.

If you feel yourself sticking to the ground while walking, STOP. Try these 4 steps:

1. Stop and take a breath.
2. Stand tall, (or if sitting, sit tall).
3. Shift your weight sideways or take a step backward before stepping forward.
4. Use your cueing strategy, as described in the next section, or move **BIG** (large intentional movements help).



Fear of Falls & Freezing

Cueing Strategies to Prevent Freezing

Everyone has their own best cueing strategies to prevent freezing. It is normal to notice that cues need to be changed every few months or years. If they become less effective, change the strategy.. These strategies may improve your walking speed and reduce your risk of falls. You may use different strategies in the home compared to in public spaces.

Visual Cues

- Step over something (laser beam, a person's foot in front of you, or a line on the sidewalk).
- Stick strips of coloured tape on the floor (you may do this in difficult areas such as doorways).
- Use patterned carpets.
- Use a flashlight.

Auditory Cues

- Repeat "1, 2" or say to yourself "left, right" and take BIG steps as you come closer to a place where you stick (this keeps your rhythm going).
- Walk to the rhythm of a metronome or music with a good beat. There are free phone apps for metronomes.

Other Cues

- Think of taking BIG steps or imagine yourself marching.
- Reach an arm up (take focus away from feet).
- When turning in small spaces, visualize the face of a clock and turn from 12 to 2, or 4 to 6.
- Imagine stepping over a line.

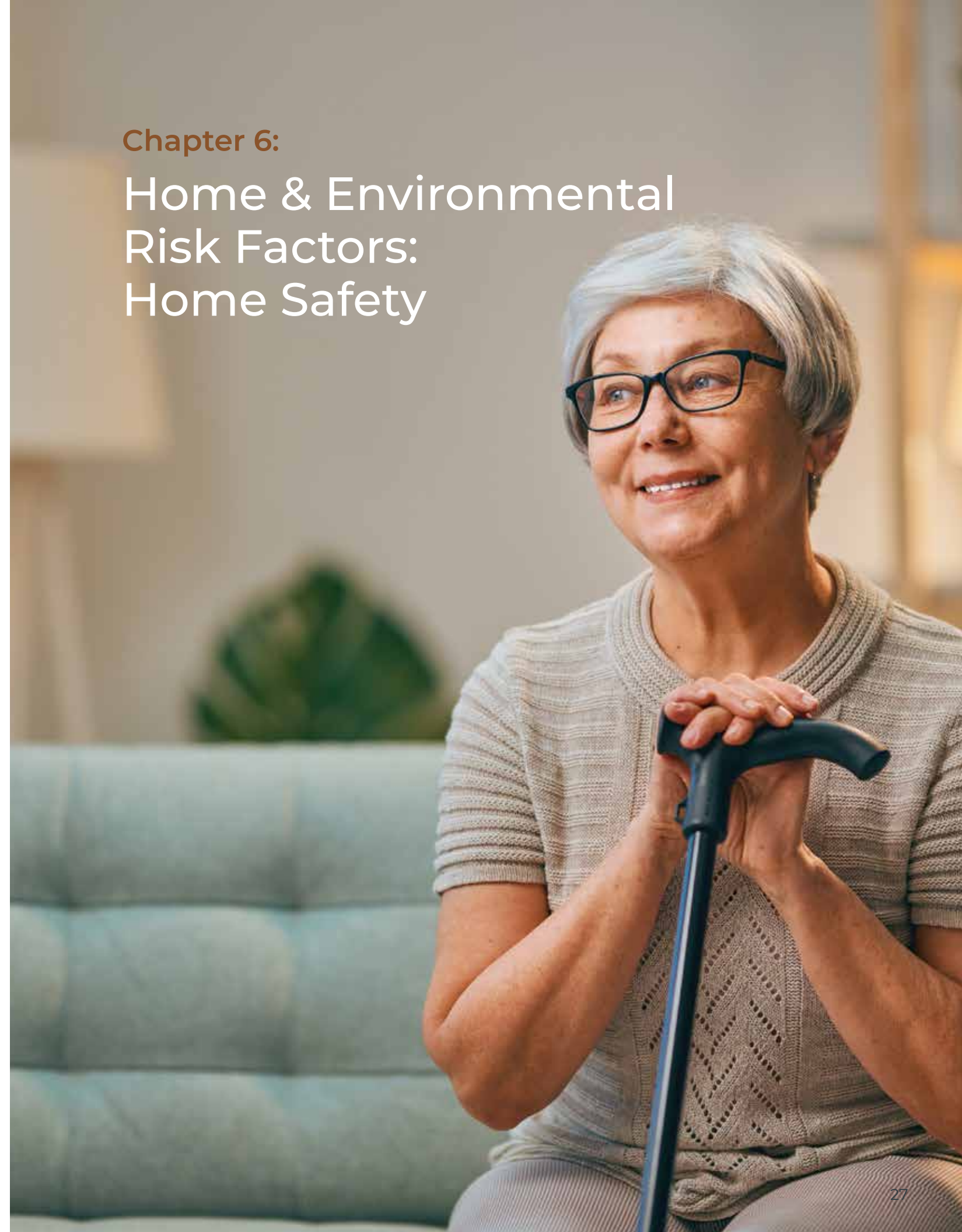
Weight-Shift Method

- Gently shift your weight back and forth or forward/backward.
- You can also gently rock your shoulders back and forth.
- Stamp your feet side to side.
- Imagine stepping over a line.

Speak to your Physiotherapist about issues related to moving safely, fear of falling, and freezing.

Chapter 6:

Home & Environmental Risk Factors: Home Safety



Home & Environmental Risk Factors: Home Safety

- Consider contacting your local community health unit or falls clinic for a Home Safety Assessment that provides specific recommendations.
- Ensure any home safety equipment is fitted correctly and in good working order.
- For assistance with home repairs, consider contacting a family member, friend, handyman, or volunteer group.
- Ensure smoke and carbon monoxide detectors are installed and in working order (contact the local fire department if you need assistance).

Ensure your home is clear of clutter, including electrical cords and footwear

Consider using a shower chair and hand-held shower head so you can sit while bathing

Consider installing grab bars beside the toilet and in the bathtub and shower area.

Always use a non-slip bathtub or shower mat.

Have a bedside lamp in easy reach.

Consider a bed assist rail to make transfers in and out of bed easier.

Keep more regularly used items within easy reach.

Wipe up spills as soon as they happen.

- Have a phone easily accessible – if possible, keep a cordless or cell phone with you.
- Consider investing in a personal alarm system.

- Ensure good lighting is available throughout your home.
- Consider increasing the lightbulb wattage to increase light.
- Consider adding nightlights to ensure good visibility.

Install handrails on both sides of the stairs and ensure they are in good working order.

Make sure stairs are well lit.

Paint the edges of stairs or add a strip of tape to each step so they are easy to see. Remember to monitor the tape as peeling tape can be a tripping hazard.

Remove carpets or rugs that present a trip hazard. Any rugs that remain should be taped down using double-sided tape.

Consider using furniture risers or a Stand-N-Go (avoid chairs or couches that are too low or soft, making them difficult to get out of).

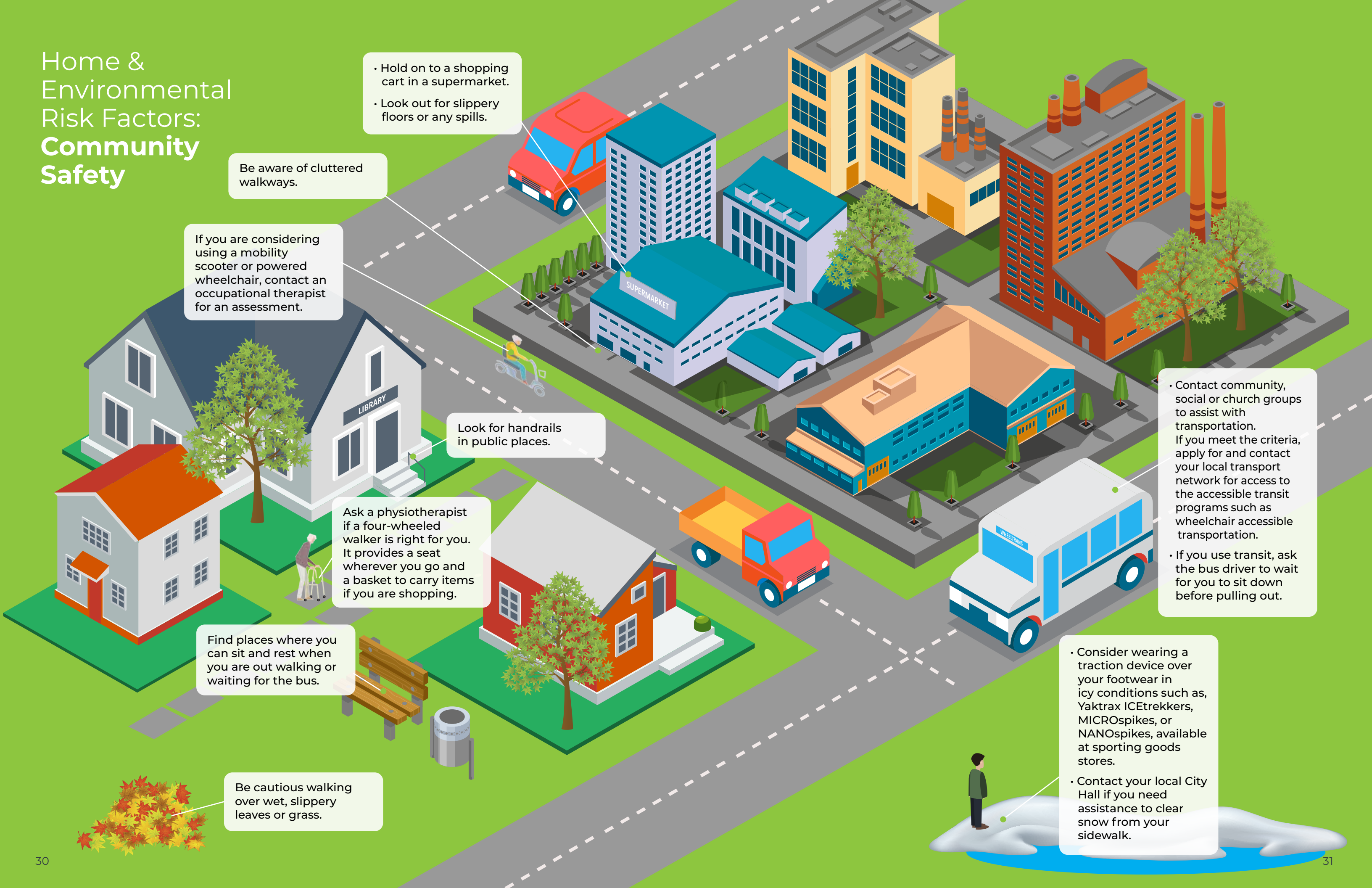
Sit in a chair with a firm back and seat and armrests.

Avoid chairs on wheels.

Use a long-handled reacher to grasp objects that are high on shelves or on the floor.

- Outdoors**
- Ensure all steps to access your home have a railing and are in good repair.
 - Ensure the walkways and driveway leading to your door are in good repair and free of leaves, ice, or snow.
 - Ensure lighting is available and in good working order around all entry/exit points.

Home & Environmental Risk Factors: Community Safety



Be aware of cluttered walkways.

If you are considering using a mobility scooter or powered wheelchair, contact an occupational therapist for an assessment.

- Hold on to a shopping cart in a supermarket.
- Look out for slippery floors or any spills.

Look for handrails in public places.

Ask a physiotherapist if a four-wheeled walker is right for you. It provides a seat wherever you go and a basket to carry items if you are shopping.

Find places where you can sit and rest when you are out walking or waiting for the bus.

Be cautious walking over wet, slippery leaves or grass.

- Contact community, social or church groups to assist with transportation. If you meet the criteria, apply for and contact your local transport network for access to the accessible transit programs such as wheelchair accessible transportation.
- If you use transit, ask the bus driver to wait for you to sit down before pulling out.

- Consider wearing a traction device over your footwear in icy conditions such as, Yaktrax ICETrekkers, MICROspikes, or NANOspikes, available at sporting goods stores.
- Contact your local City Hall if you need assistance to clear snow from your sidewalk.

Do you have questions about risk factors, accessing advice from allied health professionals or other items highlighted in this resource?

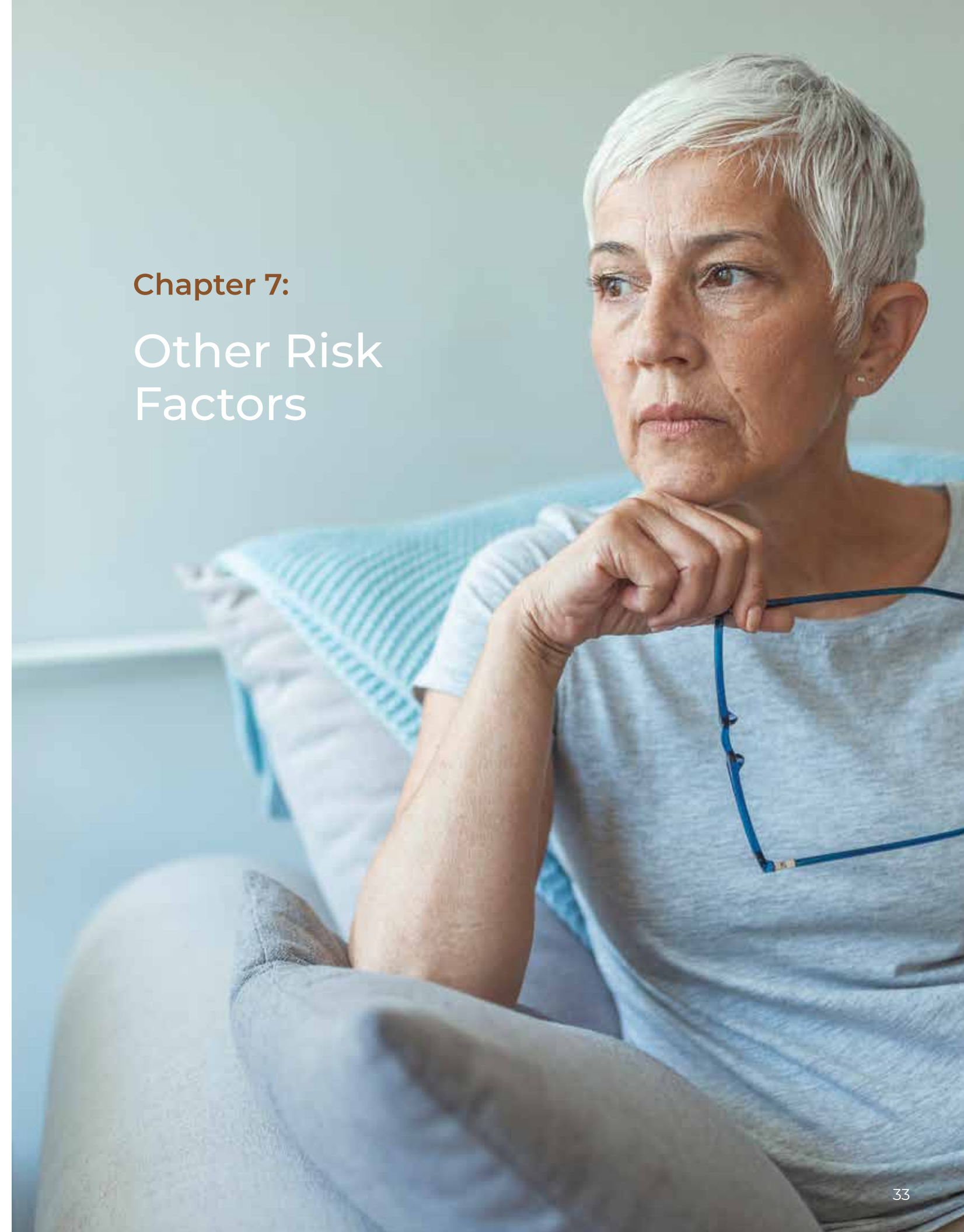
Thanks to the generosity of donors, you have access to a team of compassionate, trained Information and Referral Associates who are here to answer your questions and provide guidance and support in English and French. They can help you understand and learn more about your diagnosis, suggest strategies and resources to help you manage your Parkinson's and link you to other support services.

The Parkinson Canada Information and Referral line is a toll-free Canada-wide number for people living with Parkinson's, their caregivers and health care professionals.

If you are looking for specific resources near you or have questions about the types of activity you may most benefit from, reach us online at www.parkinson.ca, by email at info@parkinson.ca or call **800-565-3000**.

Chapter 7:

Other Risk Factors



Other Risk Factors

People living with Parkinson's may experience other changes which may increase their risk of falls. For example, changes in thinking and memory or difficulty staying focused on the task at hand can cause a fall. For many people it can be a real challenge to do more than one thing at a time.

Cognitive (Thinking and Memory) Problems

- Cognitive problems may put you at risk of falls.
- **What you can do:** Cognitive training can help you improve your skills and give you strategies to prevent falls.

Energy/Fatigue

- Changes in your energy may put you at risk for falls.
- **What you can do:** Consider ways to spread out tasks in a day to ensure adequate energy. For example:
 - Plan out the day or week.
 - Pace your activities over the day and include rest breaks.
 - Prioritize tasks so that you are doing what is most important to you.
 - Avoid certain tasks. It's okay to say no to less important activities or activities that put you at a high risk for falls.
 - Do tasks one at a time (or break them down into steps).
 - Do tasks when you are "on" (plan around your medication schedule).

Speak to your occupational therapist for additional strategies specific to you.

Other Issues that may arise:

- Feeling sad, anxious, or less interested in what is happening.
- Some people feel less motivated to participate in social activities or exercise.
- Difficulty with bladder control (urgency or incontinence).

Speak to your nurse, social worker, doctor, or pelvic-floor physiotherapist for additional strategies specific to you to address these issues.

Other Risk Factors

The Non-Motor Symptoms of Parkinson's

Parkinson's can cause non-motor symptoms such as sleep disruption, daytime sleepiness, mood changes, low blood pressure, pain, bladder or bowel dysfunction, cognitive changes, restless leg syndrome and many more, all of which can impact your risk for falls.

Everyone has their own unique set of Parkinson's symptoms. Therefore, everyone with Parkinson's will have their unique medications and schedule. Track your motor and non-motor symptoms over time. Talk to your healthcare team if you notice changes.



Other Risk Factors

What you can do about Non-Motor Parkinson's symptoms:

- Know how to connect with all your healthcare team members. Your team may include your Movement Disorder Specialist, community neurologist, family doctor, nurse practitioner, nurse, pharmacist, physiotherapist, occupational therapist, or social worker.
- Track your symptoms over time. Talk to your healthcare team if you notice sudden changes or have difficulty controlling your symptoms. They will look for a pattern in your symptoms and adjust your medications to improve your mobility.
- Connect with Parkinson Canada for guidance, including connections to local groups and programs near you.
- Be cautious when using the internet for health advice. Only refer to trusted healthcare websites. Find out who is running the website and consider if this is a trusted source of accurate information.

Chapter 8: What To Do If You Have Fallen

What to Do if you Have Fallen

Take the time to develop a plan of what you might do after a fall. Some things to consider include:

- Wear a personal alarm around your neck or wrist.
- Keep a cellular or cordless telephone with you at all times.
- Set up quick dial numbers on your phone.
- Carry a whistle.
- Leave a spare key with a family member, neighbour, or friend who lives nearby, so they can get to you quickly.
- Learn and practice how to get up off the floor if you are not injured.

Getting up after a fall

- Stay quiet for a moment — don't panic.
- If you are injured, stay where you are. Call for help using one of the methods mentioned above.
- If you are not injured, use your judgment and try to get up.
- Take your time, and if you don't succeed the first time, rest and try again.

Getting up After a Fall

1. Look around for a sturdy piece of furniture, such as a chair.
2. Roll onto your side.
3. Crawl or drag yourself over to the chair. If you can, pull your walking aid along with you.
4. From a kneeling position, put your arms up onto the seat of the chair.
5. Place your strongest foot flat on the floor.
6. Push up with your arms and legs, to move your buttocks into the chair.
7. Sit down. Rest before trying to move.

If you need emergency services, call 911.

Once you have recovered from your fall, identify what led to the fall so that you can prevent it from happening again. Get advice from a physiotherapist to help treat any injuries or help improve your balance. When you are able, return to your normal activities, including exercise and socializing with others.

Tell your doctor and healthcare providers if you have had a fall.

If you cannot get up:

- Don't panic – use one of the strategies in your plan to get help. Try to stay warm.
- Gently move around to avoid one part of the body getting too much pressure.

See page 56 for illustrations on how to get up after a fall.

Chapter 9:

Exercise – Keeping Active



Exercise – Keeping Active

What are Physical Activity and Exercise?

Physical Activity is any activity that we do with our bodies. Keeping physically active means finding ways to sit less and be more active throughout the day.

Exercise is pursued for health or fitness benefits. Exercising is an important way to prevent falls in people with Parkinson's.

Exercise and Parkinson's

Exercise can improve muscle strength, flexibility, balance, and endurance. Exercise reduces your risk of secondary health issues and people who exercise find it easier to do everyday activities and walk. Exercise can also improve confidence, depression, anxiety, and thinking along with quality of sleep, appetite and digestion. Exercising with other people also provides social connections.

People with Parkinson's should include different types of exercise in their week, including high-intensity aerobic exercise, strengthening activities, flexibility activities, and balance activities. Speak to your physiotherapist about which types of exercise are best for you.

Exercise as a Lifestyle

People with Parkinson's are encouraged to **view exercise as a form of medicine** and as an important part of their daily lives. Just as you wouldn't miss a dose of medication, try not to miss your exercising session. Exercising may slow the progression of the disease and provide greater quality of life for longer. Some Parkinson's symptoms, such as fatigue or a lack of motivation, make it difficult to stay active. But setting goals, tracking your progress, joining a group, giving yourself a reward, or having an "exercise buddy" can all help you stay motivated and active.

Exercising is easier when it's something you enjoy. How do you like to exercise? Do you prefer to exercise alone or in a group? Would you prefer a group class with people with Parkinson's or with people your own age? Talk to your physiotherapist or local Parkinson's support group to learn about local exercise options that meet your fitness needs.

Exercise – Keeping Active

How Much Should I Exercise?

The **Canadian Physical Activity Guidelines** recommend that adults over 18 years old should:

- Do at least 150 minutes of moderate to vigorous aerobic activity per week, and
- Do muscle and bone strengthening activities at least twice per week.

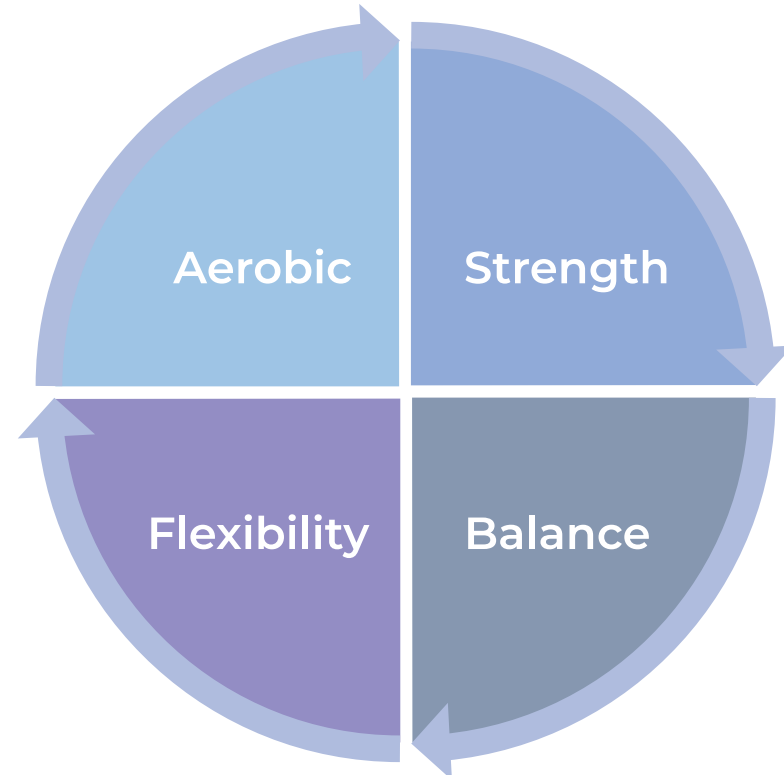
Consult your doctor before starting an exercise program, especially if you have other health issues or are over 60.

Learn more about the Canadian guidelines on: www.csep.ca/guidelines



Types of Exercise

Consider how you can include each of the four exercise types in your **Fitness Dial**. Each exercise type is outlined below.



Aerobic (Cardiovascular) Activities

Keep your heart fit with aerobic exercise to improve the effects of Parkinson's. Aerobic activities improve physical fitness, including strength and endurance. They can also have a positive effect on slowness and stiffness, mood, and quality of life. Aerobic activities can be low intensity, moderate intensity (where you can still talk while exercising), or be more vigorous.

Examples include brisk walking, pole walking, cycling, swimming, dancing, water aerobics, boxing, skating, or hiking. If you are unsteady walking or have a fear of falls, speak to your physiotherapist about walking aids for you. Your physiotherapist can help you find the right activities, the right intensity, and a plan to maintain your fitness over time.

Strengthening Activities

Strengthening activities improve muscle strength, walking speed, posture, and overall physical fitness. Improving strength will help everyday activities, such as getting up from a chair or going up or down stairs. Increasing strength improves bone health and reduces the risk of fractures if you do fall.

Examples include resistance bands, free weights, boxing, and core exercises such as Pilates. Examples of home-based strengthening exercises can be found on page 49, such as using your body weight to repeatedly get in and out of the chair.

Balance Activities

Balance activities improve posture and stability. Better balance reduces the fear of falling and helps in performing daily tasks.

Examples include yoga, Tai Chi, boxing, or a home exercise balance program (sample exercises on page 50). Many communities have falls-prevention exercise classes that may be right for you. Speak to your physiotherapist for personalized advice.

Flexibility (Stretching) Activities

Some people with Parkinson's can become more rigid or stiff over time. Flexibility (stretching) exercises improve mobility, increase range of motion, and reduce stiffness. These can affect posture and walking ability, making everyday activities easier.

Examples of flexibility activities include Tai Chi, yoga, or an at-home stretching program.



Exercise – Keeping Active

Group Classes

Many people with Parkinson's like the social connections, motivation, and variety found in group classes. There are now many different Parkinson's-specific group classes to consider, such as dance, Tai Chi, Pilates, yoga, and boxing.

Choosing a Group Class

- Lists of Parkinson's-specific exercise classes are kept by many Parkinson's organizations.
- Group classes are also run by community centres, seniors' centres, church groups, gyms, and therapists.
- Speak to the instructor to see if the class is suitable for you.
- Ask about transit and the physical space to make sure it is accessible.
- Consider the time of day as the timing may (or may not) work well with your medications. In general, you want to be feeling good (what some people call "on") during your exercise time.

Yoga

- Yoga improves flexibility, breathing control, and posture. Yoga also helps with breathing and relaxation.
- There are several types of yoga and levels to consider.
- Adapted yoga can be done in a chair. If there are no suitable classes in your area, check your local library for DVDs or try online classes.
- Some types of yoga are accessible to people with Parkinson's. Some examples include Adapted, Chair, Senior's, Restorative, Hatha (beginner level), Iyengar (beginner level), Yoga Nidra (meditation/sleep), and Yin (deep stretch) Yoga classes.
- The book, *Yoga and Parkinson's Disease: A Journey to Health and Healing* was published in 2013.
- Renee Le Verrier made a DVD called, *Yoga for Movement Disorders: Rebuilding Strength, Balance and Flexibility for Parkinson's Disease and Dystonia*.

Tai Chi and Qi Gong

- Tai Chi helps flexibility, balance, and relaxation.
- There are several forms and levels. Consider DVDs, local classes, or online classes.

Exercise – Keeping Active

Parkinson Wellness Recovery (PWR!)

- PWR! was specifically designed to provide people with Parkinson's with a program targeting flexibility, strength, balance, and endurance.
- Learn more about PWR! and to find classes: www.pwr4life.org

LSVT BIG for Parkinson's

- LSVT BIG (practising large sized movements) can be done with a physiotherapist individually or in a group class.
- Learn more about BIG and to find classes: www.lsvtglobal.com.
- The *LSVT BIG Homework Helper!* DVD is also available for purchase.

Pilates for Parkinson's

- Pilates is an excellent way to strengthen your 'core' abdominal muscles and improve your posture.
- There are several forms and levels. Ask if the class is appropriate for you.

Dance for PD

- Dance can improve fluidity of movement, balance, and flexibility.
- Learn more about Dance for PD, find a local class, or buy their DVD: www.danceforparkinsons.org



Exercise – Keeping Active

Boxing for Parkinson's

- Rock Steady Boxing for Parkinson's was created to encourage faster, bigger movements in a gym environment.
- Learn more about Rock Steady Boxing for Parkinson's at: <https://www.rocksteadyboxing.org>

PD Warrior

- PD Warrior was designed for management of Parkinson's symptoms using big movements and high effort for maximum effect.
- Learn more and to join an online program www.pdwarrior.com

Water Aerobics (Aquafit)

- Some people enjoy gentle water aerobics to keep fit and work on their balance in the pool.
- Swimming and water aerobics may help with postural hypotension.
- Contact your local pool to see if there is an appropriate class for you.

What You Can Do to Stay Active

- Find ways to be more active (sit less and move more throughout the day).
- Make exercise part of your daily routine.
- Exercise at the time of day when your Parkinson's medications allow you to be mobile.
- Wear comfortable clothes and safe shoes.
- Start with a gentle warm-up and end with a cool down for 3 to 10 minutes.
- Start with shorter periods of exercise and gradually increase your time.
- Concentrate on doing the exercise correctly.
- Stay safe while exercising, such as doing balance exercises with a stable support nearby.
- Drink water and stay hydrated.
- Monitor fatigue during and after exercising.
- Ensure you are breathing deeply and not holding your breathe.
- To keep you motivated, join an exercise group, find an "exercise buddy," or log your progress (on paper, with an App, or with a fitness tracking device).

Chapter 10: Strength and Balance Practice at Home

Strength and Balance Practice at Home

Strength and balance are the most important factors to prevent falls. Start now! It's never too late to improve your strength and balance.

Testing Yourself Before You Begin

If you haven't been exercising, you may need to talk to your doctor before you begin. You can also test your strength and balance with these simple tests.

Check your leg strength:

- Can you get out of a chair safely without using your arms?
- Can you do it three times in a row?

Check your balance:

- Can you safely reach forward or to the side 6 to 10 inches?
- Can you safely stand on one leg for 5 to 10 seconds?



Exercise – Keeping Active

Strength and Balance Exercises

Exercises to improve strength and balance can be easy to do. Only do the exercises you feel safe and comfortable doing. Ask a family member to stand close by the first time you try the exercises. Depending on your energy, you may need to do just a couple exercises at a time. If these are too easy and it is safe to do so, consider changing the complexity of the exercise such as, add weights or resistance bands, increase speed or decrease supports. Contact your physiotherapist or doctor if you have any questions or for a personalized exercise program.

During these exercises, stand up straight and lightly hold on to a sturdy surface, such as a counter.

Small Squats

- Stand tall with your feet shoulder width apart.
- Keep your heels on the floor.
- Bend your knees as if to sit, sticking your buttocks out.
- Hold the small squat for 5 seconds.
- Return to standing straight

See page 57 for some helpful exercise examples



Strength and Balance Practice at Home

Marching on the Spot

- Stand tall with your feet shoulder-width apart.
- Lift one leg and raise your knee toward your chest.
- Hold the position for 2 seconds.
- Slowly lower your leg.
- Repeat with the other leg.

On Your Toes

- Stand tall with your feet shoulder width apart.
- Rise on your toes.
- Hold the position for 2 to 5 seconds.
- Slowly lower your heels to the ground.

Sideways Steps

- Stand tall with your feet together.
- Step to the side. Then move the other foot to join it.
- Repeat in the opposite direction

Walk the Line

- Place one foot directly in front of the other.
- Hold position for 10 to 30 seconds.
- Repeat with the other foot.
- If this gets easier, you can walk heel-to-toe along the length of the counter.



Strength and Balance Practice at Home

Other General Exercises to Improve Walking

Leg strength improves walking. However, walking is also easier when you have good posture, when your arms can swing freely, and your chest is flexible.

Posture Check

- Many people with Parkinson's stoop.
- Try a **Big Stretch Tall** to be as tall as you can.
- Hold the position for 10 to 30 seconds.

Arm Swing

- Many people with Parkinson's lose their arm swing.
- Try 5 big **arm swings**.

Stiffness

- Many people with Parkinson's feel rigid in the chest (trunk).
- Stand tall and rhythmically **reach across your body** to rotate your chest.
- Reach long with each arm 5 times.





Chapter 11:
My Action Plan

My Action Plan

Here are some key strategies I can do to prevent falls:

- Medical Illnesses

 - Do I have another medical condition that needs to be addressed?
 - How do I plan to keep active during a new medical illness?
- Medication

 - Do I have any questions about my medications?
 - Do I feel that my medications need to be reviewed?
- Physical Risk Factors

 - Have I noticed any changes in my balance?
 - Are there any physical risk factors that I need to address?
- Move Safely

 - Can I avoid unnecessary risks?
 - Can I learn to move more safely and be more active?
- Home & Community Safety

 - Are there any changes I can make to my home or community to reduce my falls risk?
- Exercise

 - Do I have an exercise plan to keep me moving?



My Action Plan

What steps can I take today to prevent falls?

Contact details for my healthcare team:

Physician _____

Nurse/Nurse Practitioner _____

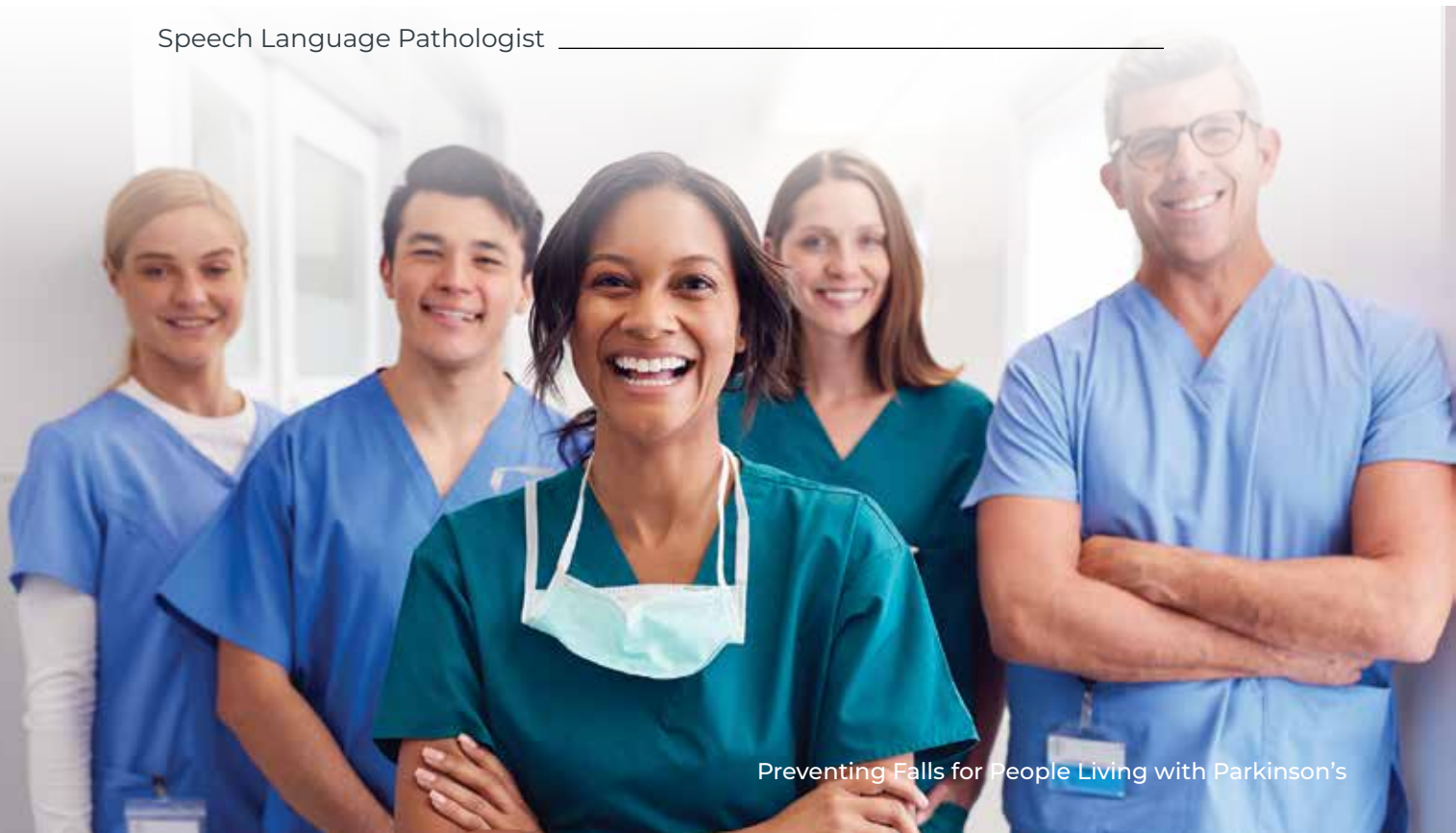
Pharmacist _____

Physiotherapist _____

Occupational Therapist _____

Social Worker _____

Speech Language Pathologist _____



Home Safety Evaluation Checklist

Adapted from Caring and Coping, A Caregiver's Guide to Parkinson's Disease, published by the Parkinson Foundation, 2016.

THROUGHOUT THE HOUSE

- ☐ Floors are stable, non-skid surfaces without excessive patterns.
- ☐ Lighting is good throughout the home, with no dark or shadowy pockets.
- ☐ Walking paths are wide, allowing easy access and/or use of a walker or wheelchair, if needed.
- ☐ Electrical/phone/computer cords do not pose a tripping/falls risk when walking or moving about.
- ☐ Stairs are in good shape, have railings and can be blocked for safety, if needed.
- ☐ Chairs are stable, have arm rests and adequate seat height to make standing up easier.
- ☐ Dining area can be easily accessed.
- ☐ A communication system is in place to allow you to hear the person with Parkinson's in another area of the house.

TO DO:

- ☐ Remove any small area rugs/throw rugs/scatter rugs.
- ☐ Remove any clutter to decrease the risk of tripping or falling.
- ☐ Store medication in a safe place.

BEDROOM

- ☐ Environment is quiet and relaxing.
- ☐ Bed height allows feet to touch the floor when seated at bedside.
- ☐ Half side-rail or bed pole is in place to assist in rolling and getting up.
- ☐ Nightlight is placed in easily accessible spot and bright enough to fully light the path to the bathroom.
- ☐ Bedside commode/urinal made available for nighttime use, if needed.
- ☐ Communication system or monitor is in place, so you can hear calls for help at night.

TO DO:

- ☐ Place slippery fabric or draw sheet on the middle third of the bed to make rolling easier.
- ☐ Remove the top sheet and instead use only a lightweight comforter on the bed.
- ☐ Avoid flannel sheets and nightwear as they impede movement.

BATHROOM

- ☐ Grab bars are installed near the toilet, tub and shower to avoid using towel racks, faucets or soap dishes as substitutes.
- ☐ Toilet has an elevated seat and arm rests or grab bar within easy reach.
- ☐ Tub/shower has a sturdy bench with back support for bathing/shower safety.
- ☐ Seating is available when performing tasks like brushing teeth, shaving, and combing hair, if needed.
- ☐ Communication system or monitor is in place so you can hear calls for help.

What To Do If You Fall

Take the time to develop a plan of what you might do after a fall.
Some things to consider are:

- Wear a personal alarm around your neck.
- Keep a mobile or cordless telephone with you at all times.
- Set up quick dial numbers on your home phone.
- Carry a whistle.
- Have a friend or family member call you daily and leave them a spare key, so they can get to you quickly.

Learn and practice how to get up off the floor if you are not injured.

Getting up after a fall:

- Stay quiet for a moment — don't panic. If you are injured, stay where you are. Call for help
- Using one of the methods mentioned previously. If you are not injured,
- Use your judgment and try to get up.

If you cannot get up:

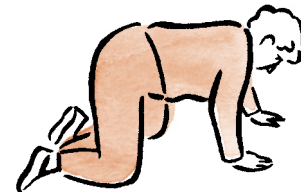
- Don't panic – use one of the strategies in your plan to get help.
- Try to stay warm.
- Gently move around to stop one part of the body getting too much pressure.



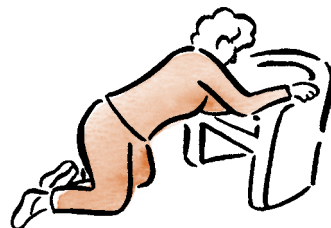
- 1** Look around for a sturdy piece of furniture, such as a chair.



- 2** Roll onto your side.



- 3** Crawl or drag yourself over to the chair. If you can, pull your walking aid along with you.



- 4** From a kneeling position, put your arms up onto the seat of the chair.



- 5** Place your strongest foot flat on the floor.



- 6** Push up with your arms and legs, move your bottom around.



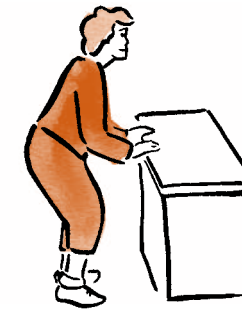
- 7** Sit down. Rest before trying to move.

Stay On Your Feet - Exercises

These simple exercises can help improve your strength and balance. Only do the exercises you feel safe and comfortable doing. It may be safer and easier to do just a couple of exercises at a time. If you have increased pain or a significant increase in shortness of breath stop exercising immediately.

Speak with your doctor or health care provider about any medical condition which may affect your ability to do these exercises.

Stand up straight. Hold onto the edge of the kitchen counter if you need to for safety. As this gets easier, try to hold on less.



Small Squats

- 1) Stand with feet apart
- 2) Bend knees as if to sit
- 3) Keep your heels on the floor
- 4) Hold for 5 seconds



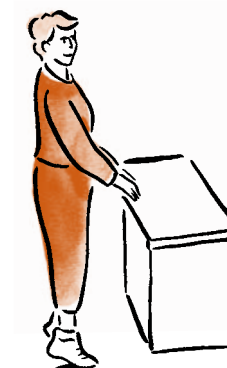
The Bird

- 1) Face counter and hold on with one hand
- 2) Stand with feet apart
- 3) Shift your weight to one side
- 4) Reach sideways as far as you can with free hand
- 5) Switch hands and reach to the other side
- 6) Hold for 5-10 seconds



Marching on the Spot

- 1) Stand straight
- 2) Lift one leg and raise the knee toward your chest
- 3) Hold the position, then slowly lower
- 4) Repeat with other leg



On Your Toes

- 1) Stand on tiptoes
- 2) Hold for 5 seconds
- 3) Slowly lower and rock back onto the heels, lifting up the toes
- 4) Hold the position for 5 seconds



Side Leg Raise

- 1) Stand with feet apart
- 2) Lift one leg to the side
- 3) Keep your toes pointing forward
- 4) Hold position for 5 seconds, then slowly lower
- 5) Repeat with other leg



Walk the Line

- 1) Place one foot directly in front of the other
- 2) Hold position for 10-30 seconds
- 3) Repeat with other foot
- 4) Progression: walk heel to toe along length of the counter



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