

Understanding
and reducing
the risk of falling for
people with Parkinson's



stay on your feet!



Pacific Parkinson's Research Centre



Parkinson Society British Columbia
Société Parkinson Colombie-Britannique



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This booklet has been compiled from a variety of resources and every effort has been made to ensure the information presented is accurate.

This information provides helpful advice to people with Parkinson’s, their families and caregivers.

It does not replace assessment and management by the appropriate healthcare service provider.

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preventing falls

Falls are the leading cause of injury-related hospitalizations and injury-related deaths. Falls are also the major reason for admission to a residential care facility.

A fall can happen to anyone, anywhere, anytime. Having Parkinson's will increase your risk.

Although not everyone experiences falls, loss of balance and falling can be common in people with Parkinson's.

Being proactive reduces your risk of falling.

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

If you are a family member, friend or caregiver, you will also find this book helpful.



the causes of falls

There is no single reason why people fall. The causes of falls are often called risk factors. The more risk factors you have, the greater your chance of falling.

All of the following are risk factors for falling in Parkinson's

- ▶ Changes in posture
- ▶ Impaired vision
- ▶ Fear of falling
- ▶ Taking unnecessary risks
- ▶ Parkinson's and acute illness
- ▶ Medication use
- ▶ Home and community hazards
- ▶ Reduced strength and impaired balance
- ▶ Changes in walking pattern, difficulty turning, backing up and moving around obstacles or changing direction
- ▶ Freezing—your feet suddenly stick to the ground so that you are unable to move
- ▶ Festination—tendency to propel forward as your walking accelerates with rapid, short steps
- ▶ Bradykinesia—slowness of movement
- ▶ Dyskinesia—involuntary twisting or turning movements of the head, body, legs and/or arms
- ▶ Fatigue
- ▶ Stress and anxiety
- ▶ Changes in thinking and memory



Parkinson's & acute illnesses

Like everyone else, people with Parkinson's can get sick. An acute illness, such as a urinary tract infection, flu or pneumonia, can make your Parkinson's worse. But like everyone else, with treatment and in time, you can get better from these temporary illnesses!

In addition to your Parkinson's, you may also have other ongoing health problems, such as diabetes, arthritis or heart conditions, which may also have their ups and downs.

Any of these problems combined with Parkinson's can increase your chance of falling.

What you can do:

- ▶ Keep your doctor's appointments and follow your doctor's advice
- ▶ During the illness, keep moving as much as you safely can
- ▶ After the illness, gradually increase your activity to your previous level
- ▶ Try to safely maintain activities such as daily walks and exercise to keep your strength and balance
- ▶ Monitor your activity level and stay within your comfort zone



medication use

Maintaining good mobility and symptom control with Parkinson's depends largely on successful medication therapy.

Do you:

- ▶ Wonder why other people with Parkinson's are taking very different medications than you are?
- ▶ Find that side effects from your medications affect your balance?
- ▶ Find that some doses of medication do not work at all, or only work for short periods?
- ▶ Forget to take some doses of medication or forget to take them on time?
- ▶ Experience dizziness or lightheadedness on getting up from a lying or sitting position?

What you can do:

Learn about Parkinson's

The classic symptoms of Parkinson's are tremor, slowness, stiffness and impaired balance. But the symptoms described vary from person to person. You may have more problems with one symptom than another.

Your medications are designed to treat your specific symptoms, and because symptoms vary from person to person, your medications may differ from others.

Learn about your medications and their possible side effects

Understanding more about your medications and how they work will help you stay active and do the activities you enjoy.

All medications, including vitamins and supplements, can cause side effects. The medications used to treat Parkinson's are no exception.

Medications taken for Parkinson's may cause dizziness due to a drop in blood pressure, sleepiness, and involuntary twisting and turning movements called dyskinesia. These side effects may put you at risk for a fall.

If you have low blood pressure, you will need to get up slowly from a lying or sitting position to allow your body time to adjust to standing before you move.

Take your medication on time

Missing doses or taking your dose late may impact how the medication works. When your medication is not working properly you may become stiff and slow and feel off-balance. This may put you at risk for falls.

Take your medication as close to the scheduled time as possible. If you are away from home, you should always carry an extra dose for those unexpected times. If you sometimes cannot remember whether you took a certain dose or not, a pillbox or blister pack with many compartments for each dosing time for the day can help you remember which medications to take and when. Some people find a watch alarm helpful in reminding them to take their medication.

Talk to your doctor

Ask your family doctor to refer you to a doctor who is an expert in Parkinson's. In British Columbia, the Pacific Parkinson's Research Centre in Vancouver is a centre of excellence for the diagnosis and management of Parkinson's.

You might also be referred to a neurologist in your own area.

It is important to report any side effects of medication that you notice to your doctor. The doctor may need to make some changes to your medication or add in another medication to help prevent the side effect.

We would encourage you to seek medical attention for symptoms of low blood pressure (i.e. dizziness or lightheadedness on getting up from a lying or sitting position). Your doctor will need to monitor your blood pressure lying and standing.

Let your doctor know if you are having trouble turning in bed and getting to the bathroom at night. This can be a time when you are more likely to fall. Your doctor may wish to give you extra medication to help with this.

Parkinson's may increase the risk for low bone density and osteoporosis for both men and women. Seek guidance from your family doctor.

taking risks

Sometimes we all take unnecessary risks without thinking.

Do you take any of the following chances?

- ▶ Climb onto furniture when reaching for an object?
- ▶ See hazards in your home but never get around to fixing them?
- ▶ Move heavy objects by yourself?
- ▶ Wear slippers with an open heel or socks around the house?
- ▶ Rush to get things done or to answer the phone?
- ▶ Never ask for help?
- ▶ Do too much and feel exhausted or overtired?
- ▶ Go up or down stairs with parcels in both hands?
- ▶ Climb on a stepladder or ladder?

What you can do:

- ▶ Fix unsafe areas of your home (see HAZARDS AT HOME).
- ▶ Store items on lower, easy to reach shelves.
- ▶ Keep regularly used items at arms reach, and take care when reaching forward.
- ▶ Never lean your centre of gravity, which is near the belly button area, too far forward over your feet.
- ▶ If you have to lean forward, keep your feet wide apart, one foot in front the other.
- ▶ Stand directly in front of what you are reaching for.
- ▶ Hold the counter or stable object to steady you.
- ▶ Try wearing lace-up or Velcro fastening sturdy shoes. Shoes should be comfortable, not be too tight or loose. Thin soles are better than thick because you can feel the ground better.
- ▶ Sit down to dress.
- ▶ Sit down if possible whilst doing chores.
- ▶ Look where you are going, try not to be distracted or to rush. It is important to focus on one thing at a time.
- ▶ Ask for help to carry or move heavy and bulky objects.
- ▶ Avoid sudden movements or quickly changing positions.
- ▶ Take time to plan your movement first.
- ▶ It's okay to say no to less important activities.

- ▶ Recharge your batteries with an afternoon rest.
- ▶ Install handrails on stairs. Keep at least one hand free to hold the handrail. Holding two handrails is even better than one.
- ▶ Consider a personal alarm system, which can call for help if you fall and are alone. You can contact a 24hr response centre by pressing a button on a pendant or wristband.



home hazards

For people with Parkinson's, home is the most common place to be injured because of a fall. Look around your home and complete a safety check. You can greatly reduce your risk of falling by making some simple and often inexpensive changes in your home.

Do you have:

- ▶ Unsafe stairs or steps?
- ▶ Broken or missing railings?
- ▶ Poor lighting?
- ▶ Throw rugs?
- ▶ Clutter?
- ▶ Regularly used items out of reach?
- ▶ A phone that is not accessible?
- ▶ Spills that go un-wiped?
- ▶ Chairs or couches that are too low or soft, making it difficult to go from sitting to standing ?
- ▶ Walkways that have cracks or holes or driveways that need repair?
- ▶ Showers or tubs without a non-slip mat?

What you can do:

- ▶ Install or repair handrails on both sides of stairs.
- ▶ Repair worn or broken steps and keep them free of clutter.
- ▶ Increase the wattage of light bulbs in your whole house.
- ▶ Consider adding night-lights in areas like your hallway and bathroom.
- ▶ Remove carpets or rugs that present a trip hazard.
- ▶ Clear clutter from walkways and stairs, including electrical cords, laundry, footwear etc.
- ▶ Use a long handled reacher to grasp objects that are on high shelves or on the floor.
- ▶ Consider using a cordless or cell phone to carry with you. Think about investing in a personal alarm system.
- ▶ Wipe up spills as soon as they happen.
- ▶ Sit in a chair with a firm back and seat support and armrests.
- ▶ Repair outdoor sidewalks and driveways.
- ▶ Always use a non-skid bathtub or shower mat.
- ▶ Consider the use of a shower chair and hand-held shower head so you can sit while bathing.

Community Health Centres:

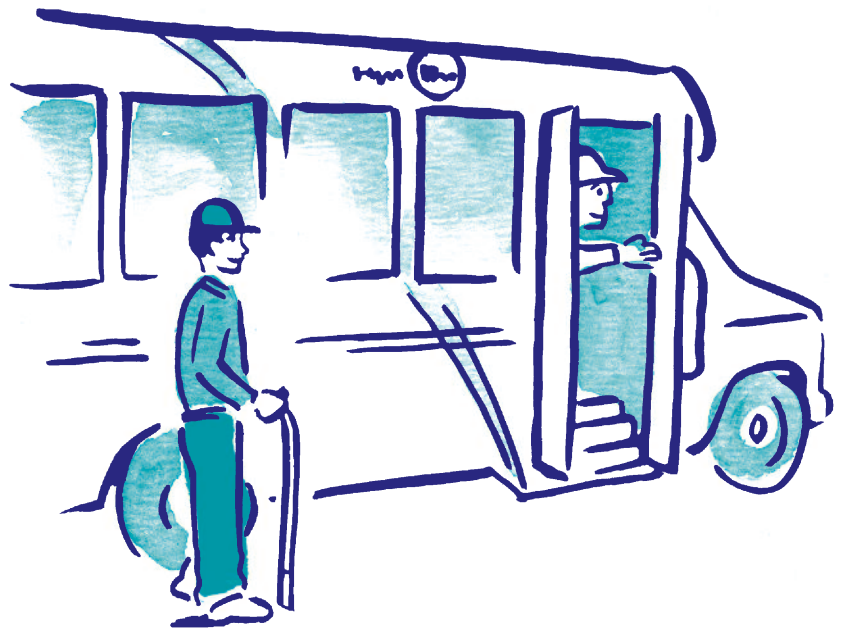
- ▶ Contact your local centre to request a home safety assessment.

Community hazards— be on the lookout for:

- ▶ Public places where there are hazards such as slippery floors or cluttered walkways.
- ▶ Are there places to sit and rest?
- ▶ Uneven sidewalks?
- ▶ Transportation difficulties due to access or cost?

What you can do:

- ▶ Report unsafe conditions to property managers, owners, or city hall.
- ▶ Find places where you can sit so that you can rest when out walking or waiting for the bus.
- ▶ Contact HandyDART, community, social or church groups to assist with transportation.



fear of falling

Fear of falling can limit your activities and affect your lifestyle.

You may be anxious because you have had a fall already and are afraid the next one may be worse. Being anxious increases your chances of having a fall if you allow yourself to become inactive and less physically fit.

Not all falls can be prevented, but there are things you can do to keep safe and reduce the amount of falls and injury.

Do you:

- ▶ Stay indoors and avoid going for a walk for fear of having a fall?
- ▶ Avoid social activities that require travel outside the house?
- ▶ Choose not to use a cane or walker because you think it makes you more dependent or look “old”?
- ▶ Think frequently about the dangers of a second fall?

What you can do:

- ▶ Keep as active as possible and continue to move in a safe way [See *Making Safer Moves* section. p.16]
- ▶ Exercise to improve your strength and balance.
- ▶ Try Tai Chi, which helps flexibility, balance and relaxation. There are several forms and levels. Speak to a Tai Chi instructor to find out which is suitable for you.
- ▶ Try yoga, which improves flexibility, breathing control and posture. Yoga also helps with relaxation and can even be performed in a chair.
- ▶ Continue to exercise, socialize and participate in normal activities after a fall.
- ▶ Learn how to get up from the floor after a fall and, if you need it, how to ask others for help.

- ▶ Use a cane or walker to maintain your independence and be sure they are fitted and used correctly. A physical therapist or occupational therapist can help you choose the best equipment for you, and teach you how to get up safely after a fall.
- ▶ Wear hip protectors – especially at times when you know you are more likely to fall.
- ▶ Use other protective equipment, such as knee and elbow protectors.

[See list of equipment for suppliers. p.18]



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 or wrist.
- ▶ Keep a cellular or cordless telephone with you at all times.
- ▶ Set up quick dial numbers on your home 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.

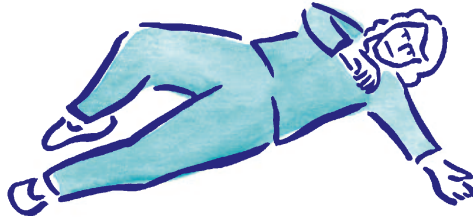
Take your time, and if you don't succeed the first time, rest and try again.

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.

Let your doctor know that you have had a fall.

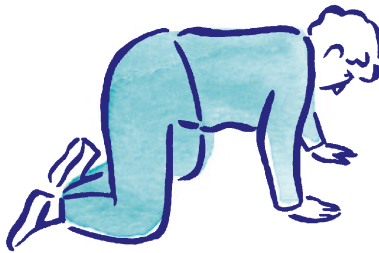
GETTING UP AFTER A FALL



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, move your bottom around.



7 Sit down. Rest before trying to move.

making safer moves

Move with a plan — this includes using attentional and cueing strategies.

Attention Strategy

It's important to think and plan ahead before you move. Pay full attention to your movement and avoid any distraction, even talking!

Cueing Strategies

- ▶ Cues make movement less dependent on the “automatic pilot”, which is in the part of the brain affected by Parkinson's.
- ▶ Cues activate other areas of the brain to help you start and keep moving.

Walking cues and reminders

- ▶ Emphasize putting your heel down first and then pushing off with your toes. Say to yourself “Heel-toe off” and repeat to yourself as you walk.
- ▶ Maintain a space between your feet so that you have a wider base of support.
- ▶ Emphasize taking a big step forward. Try saying: “Big step” or repeating “Left- right” or “One, two,” as you walk.
- ▶ Walk to the rhythm of a pocket size metronome or music with a good beat.
- ▶ If someone is with you, firmly take their arm and follow their rhythm of walking.
- ▶ Avoid doing two things at a time, such as carrying things when walking. It's better to focus on moving safely.
- ▶ Be safe and use a walker if needed. A walker with extra rear wheel slow down brakes is helpful if you tend to take small fast steps.

Turning and backing up

- ▶ Turn in a large circle if there is enough space.
- ▶ Keep stepping during a turn or when opening a door so that you keep the rhythm of your steps.
- ▶ In a small space visualize the face of a clock and turn from 12 to 2 to 4 to 6.
- ▶ Exaggerate your steps, imagine you are marching or stamping.
- ▶ When stepping back, try to make your step big and hold on to something if possible.

Freezing

Freezing happens when your feet suddenly stick to the ground so that you are unable to move forwards, backwards or turn, all of which can lead to a fall.

Tips for coping with freezing:

- ▶ Visualize where you are going and plan your movement first.
- ▶ If you feel yourself sticking to the ground, STOP. Think about standing tall with your feet apart.
- ▶ Try shifting your weight sideways from foot to foot.
- ▶ Step over a companion's foot placed in front of your foot, or step over a laser beam or a line in the sidewalk.
- ▶ Stick strips of coloured tape, a step length apart, in "hot spots" where you have difficulty at home, so you can step over the lines made by the tape.
- ▶ Repeat "One, two," or say to yourself "Left, right" as you come closer to the place where you stick so that you keep the rhythm of your steps.
- ▶ Focus on something straight ahead especially when going through a doorway or getting on an elevator.
- ▶ 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.
- ▶ Caregivers should resist the temptation to give lots of instruction. Keep it short and sweet.

Getting around obstacles

- ▶ Keep your living area free of clutter.
- ▶ Focus your full attention on moving safely around obstacles such as furniture.
- ▶ Take your time, do not rush.



Sources of Equipment and Supplies

- ▶ These include canes, walkers, bed rails, raised toilet seats, grab rails, hip protectors and wrap-around weights etc.
- ▶ Check telephone directory for:
 - Pharmacies
 - Medical Equipment Stores
 - Red Cross Medical Equipment Loan service
 - Musical equipment stores for pocket size metronome
 - Sports equipment stores for elbow and knee protectors

strength & balance

Strength & balance are the most important factors to help prevent falls. Begin now! It is never too late to improve your strength and balance. Get the approval of your doctor before you start.

To see if you have good leg strength or good balance try the following tests.

For safety reasons, have a friend or family member stand by while you try these.

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 stand on one leg for 5–12 seconds? Can you safely reach forward or to the side approximately 6–10 inches?



What you can do:

- ▶ Strengthen your legs by getting up from a chair without using your arms. Try repeating this 3 times.
- ▶ Go up and down stairs to keep your legs strong. Make sure you use the handrails.
- ▶ Walk as much as you can. If you become tired quickly or feel unsteady, a four-wheeled walker with a seat and a basket is a great idea. Have a physical therapist or occupational therapist help you choose the right one.
- ▶ When sitting, bend and straighten your legs. You can add small wraparound weights to your ankles.
- ▶ Mark out a walking path in your house so that you can exercise if the weather is bad.
- ▶ Call your community centre, senior's centre, or church to find out what programmes are offered for seniors. Consider a personal trainer or exercise buddy to keep you on track.

strength & balance

Exercises that can improve your strength and balance are simple and easy to do. 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.

Stand straight and hold onto the edge of the counter before beginning.



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

If you have increased pain or a significant increase in shortness of breath stop doing the exercise immediately. DO NOT do any of these exercises if a health professional has advised you not to.

Strength and balance retraining can reduce your risk of falling by 50%.



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

personal notes

call or look for assistance

Community Health Centres for Physiotherapists, Occupational Therapists, Nurses, Dieticians, Home Safety Assessment

North Shore Central Intake	604-983-6740
Pemberton Health Centre	604-894-6939
Richmond Central Intake	604-278-3361
Squamish Community Health Care	604-892-2293
Sunshine Coast Central Intake.....	604-741-0726
Vancouver Central Intake.....	604-263-7377
Whistler Health Care Centre	604-932-4911
Richmond Seniors Falls Prevention Program	604-233-3145

Sidewalk & Street Hazard Reporting

North Vancouver (City)	604-987-7155
North Vancouver (District)	604-990-2450
Richmond.....	604-270-8721
Vancouver	604-326-4650
West Vancouver.....	604-925-7101

Red Cross Medical Equipment Loan Services

Burnaby (Edmonds).....	604-522-7092
Burnaby (Lake City)	604-709-6637
North Shore.....	604-988-7115
Richmond.....	604-278-4011
Vancouver	604-301-2566

Home Adaptations for Seniors Independence (HASI) Residential Rehabilitation Assistance Program (RRAP)

.....1-800-639-3938

Continence.....www.canadiancontinence.ca

Diabetes Resource Centre

1-800-268-4656

HealthLinkBC: Live help 24/7
multilingual number

8-1-1

Optometrists, B.C. Association..... 1-888-393-2226

Pacific Parkinson's Research Centre.... 604-822-7721
www.parkinsons.ubc.ca

Parkinson Society British Columbia.....1-800-668-3330
www.parkinson.bc.ca

Parkinson Society Canada

1-800-565-3000
www.parkinson.ca

Podiatrists, BC Association..... 1-866-611-3338

The Society for Progressive
Supranuclear Palsy

1-800-457-4777
www.psp.org

Additional Web sites:

National Parkinson Foundation

www.parkinson.org

We move

www.wemove.org

VCH Fall & Injury Prevention..... fallprevention.vch.ca

Other Important Numbers:

This booklet was developed by Maggie Caunter PT and Linda Grantier RN, Pacific Parkinson's Research Centre, in collaboration with Cheryl Leia PT, Vancouver Coastal Health and Carmen Dyck MC, RCC, Parkinson Society British Columbia. A special thanks to Dr. Mary Jenkins and Carole Shaw PT for their review of the material.