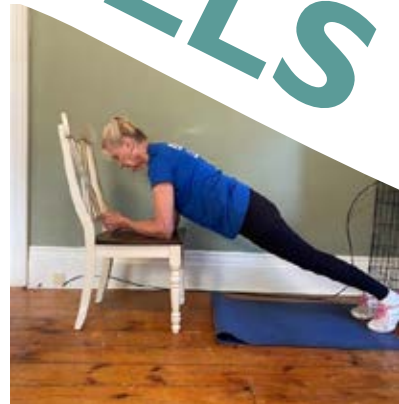


# RISE UP TO FALLS



FALLS PREVENTION EXERCISE BOOKLET

# DISCLAIMER

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- **NOT all exercise programs are suitable for everyone.** Although you may be able to do these exercises easily, it is recommended you speak with your health care provider about the kind of exercises and activities you can safely do.

This resource is brought to you by Safe Communities Wellington County-Falls Prevention Priority Group.

This book was developed by Registered Kinesiologists of the Falls Prevention Priority Group.

Content and graphics were adapted with permission by Physiotec.

# POSTURE BASICS

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- Neutral spine; emphasizing the natural “S” curvature of your spine
- Pulling shoulders back and down
- Head over top of shoulders and shoulders over hips
- Tucking in your chin
- Engaging/tightening your core/abdominal muscles, avoid sucking core in, rather firm up core with a gentle tuck of belly button
- Engaging/tightening your pelvic floor, as if stopping the flow of urine
- Engaging/tightening your glute/buttocks muscles, by squeezing buttocks together
- Be sure to not hold your breath to engage muscles

## Proper Posture

Drawing a line down the middle of your body insuring middle of ear is inline with middle of shoulder and middle of hip inline with middle of ankle



Apply these principles when standing, sitting, lying, or on all fours

## Chapter #1. Lower Body Strength

- The exercises outlined in this chapter will help improve activities such as:
  - Rising from a chair
  - Walking/running/hiking
  - Bending down to pick-up grandkids
  - Getting up from the floor
  - Prolonged standing
  - Climbing stairs

- Frequency:
  - 2-3 times per week, non-consecutive days
- Intensity:
  - 1 set of 3-5 repetitions (reps)
  - Gradually build-up to 10-15 reps by adding 1-2 reps per week
  - Ideally working up to 3 sets of 10-15 reps
- Time:
  - Hold the contraction/lift phase for 2 sec.
- Type:
  - Strength Exercise

## Chapter #2. Core Strength

- The exercises outlined in this chapter will help improve activities such as:
  - Golf
  - Pickleball
  - Prolonged standing
  - Walking/running/hiking
  - Lifting and lowering grandkids
  - Gardening

- Frequency:
  - 2-3 times per week, non-consecutive days
- Intensity:
  - 1 set of 3-5 repetitions (reps)
  - Gradually build-up to 10-15 reps by adding 1-2 reps per week
  - Ideally working up to 3 sets of 10-15 reps
- Time:
  - Hold the contraction/lift phase for 2 sec.
  - For plank series, gradually hold up to 20-30 sec.
- Type:
  - Strength Exercise

## Chapter #3. Balance and Proprioception

- The exercises outlined in this chapter will help improve activities such as:
  - Walking/running/hiking
  - Climbing stairs
  - Stepping on/off curbs
  - Rising from a chair
  - Reaching up high/low for objects

- Frequency:
  - Daily or at least 2-3 times per week
- Intensity:
  - 1 set of 3-5 reps
- Time:
  - 5-10 sec. hold
  - Gradually working up to 30 sec. hold
- Type:
  - Balance Exercise

## Chapter #4. Lower Body Stretches

- The exercises outlined in this chapter will help improve activities such as:
  - Dressing
  - Putting shoes on/off
  - Bending over to pick up objects
  - Getting up from a fall
  - Moving around in bed

- Frequency:
  - Daily or at least 3-4 times per week
  - 2-3 times per side, per stretch
- Intensity:
  - Comfortable muscle pull NO pain
- Time:
  - 10-30 sec. hold
- Type:
  - Stretching Exercise

# CHAPTER #1. LOWER BODY STRENGTHENING

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## Exercise #1. Seated leg extension



- Sitting tall with back supported, feet flat on floor and hip width apart.
- Thighs should be supported by the chair and not lift during movement.
- Begin to fully extend lower leg, toes pointing upward, hold, then slowly bend leg and repeat.
- Complete on opposite leg.
- Optional: Extend both legs simultaneously

## Progression #1a. Partial wall sit



- Standing against a wall, with back of head (if able without hyperextending), upper back and low back touching wall.
- Place feet 2 ft away from the wall and hip width apart.
- Begin to perform a squat, by sliding down wall, bending your knees to 90° or less and keeping your back against the wall and make sure your knees are behind or above your toes.
- Try to maintain contact against the wall at head, shoulders and back.

# CHAPTER #1. LOWER BODY STRENGTHENING

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## Progression #1b. Partial squat



- Stand tall (core engaged and back neutral) with feet pointing forward and arms on hips or out in front of you.
- Push hips back and bend knees to lower yourself slightly (knees should bend about 30 to 40°).
- Keep knees aligned with center of feet.
- Make sure knees don't go past the toes.
- Hold, then slowly return to standing position

## Progression #1c. Squat from chair



- Sit on edge of chair which has been placed against the wall to prevent slipping.
- Place feet hip width apart, knees to 90° and your heels on floor.
- Begin to lean forward from the hips (nose over toes) while keeping your chest raised.
- As you continue to lean forward, press through your heels until you start to rise to a standing position.
- Begin to push the hips backwards and slowly lower yourself back to a seated position on the chair.
- 80% of your weight should remain over your heels for both feet.

## Exercise #2. Standing leg curl



- Stand with tall (core engaged and back neutral).
- Holding on to a sturdy object as needed, such as a chair.
- Transfer your weight to your left leg and bend your right knee to bring your right foot towards your buttock without arching the lower back or moving your right knee forward, hold.
- Lower your foot slowly and repeat.
- Complete on both sides.

## Progression #2a. Bridge on chair



- Lie on back, engage your core and buttock muscles, flatten low back into the floor and place lower legs on top of a chair.
- Keep knees slightly bent, lift pelvis off the ground to create a bridge.
- Hold.
- Return to the floor and repeat.

## Progression #2b. Bridge on floor



- Lie on back with knees bent at 90° and arms at side, feet hip width apart and back in a neutral position (slightly arched)
- Engage your core and contract buttock muscles to lift hips off the ground, pushing through your heels, until body is aligned with your legs.
- Hold.
- Then slowly return to the initial position and repeat.

## Progression #2c. Single leg bridge on floor



- Lie on back with knees bent 90° and arms at side, feet hip width apart and back in a neutral position (slightly arched)
- Engage your core and contract buttock muscles to lift the hips into a bridging position.
- From this position, extend one knee at a time, keeping the thigh in alignment with the other.
- Return the foot on the ground and repeat on the other side.
- Lower your hips after these two repetitions.
- When you extend your left and right leg, that is considered 2 reps.

## Exercise #3. Side lying hip abduction



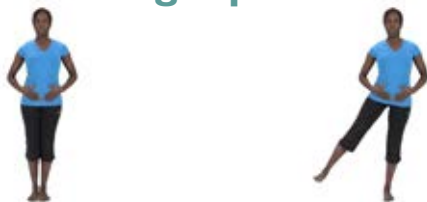
- Lay on side with head supported and lower leg bent.
- Lift the top leg up to about 30° making sure foot is flexed, and parallel to the ground and the thigh aligned with the body (do not move it forward as you lift).
- Hold at the top, then slowly lower but do not touch the ground.
- Complete on opposite side.

## Progression #3a. Supported standing hip abduction



- Stand tall and holding the back of a chair.
- Shift weight onto your left leg to slightly lift right foot off the floor.
- Begin to move right leg toward the outside without lifting your pelvis, or leaning to the left side, while keeping your back and right leg straight, toes pointing forward and looking directly ahead of you.
- Return and repeat.
- Complete on opposite leg.

## Progression #3b. Unsupported standing hip abduction



- Stand tall with feet together and with arms on hips.
- Shift weight onto left leg to slightly lift right foot off the floor.
- Begin to move right leg toward the outside without lifting your pelvis, or leaning to the left side, while keeping your back and right leg straight, toes pointing forward and looking directly ahead of you.
- Return and repeat.
- Complete on opposite leg.

## Progression #3c. Unsupported standing hip abduction, 3 ways



- Stand tall with feet together and with arms on hips.
- Shift weight onto left leg to slightly lift right foot off the floor.
- Keeping upper body upright, lift right leg out in front of you with toes flexed, leg straight then return foot to initial position.
- Next, bring right leg toward the outside, keeping toes pointing forward, and leg straight, then return foot to initial position.
- Finally, bring right leg out straight behind you, without leaning forward with your upper body.
- The key is keeping your upper body upright and avoiding to move throughout all 3 directions.

## CHAPTER #2. CORE STRENGTHENING EXERCISES 14

### Exercise #1. Wall plank



- Stand facing wall at an appropriate distance so when your forearms are on the wall, you'll be in a slight angle to work your abdominals.
- Place forearms at about shoulder height and hold the position with your body in a straight line.
- The further you are from the wall, the more difficult the exercise will be.
- Heels naturally lift the further you move down the wall.

### Progression #1a. Chair plank



- Place forearms on a chair, knees bent with toes flexed.
- Begin to lift hips, so body is in a straight line from head to feet and keep elbows under shoulders.
- Contract buttock muscles and engage core by recruiting your core muscles to prevent arching lower back.
- Hold the position.

## CHAPTER #2. CORE STRENGTHENING EXERCISES 15

### Progression #1b. Plank on knees



- From lying, lift yourself up in a straight line, resting on forearms and knees, with toes relaxed.
- Contract buttock muscles and engage core by recruiting your core muscles to prevent arching your lower back.
- Keep body in a straight line from head to knees and keep elbows under shoulders.

### Progression #1c. Full plank



- Start in all fours, then prop yourself up on your forearms and toes, with your chin tucked in slightly.
- Be sure elbows are directly under shoulders
- Lift up, creating a straight line with your body.
- Maintain the position without arching the lower back.



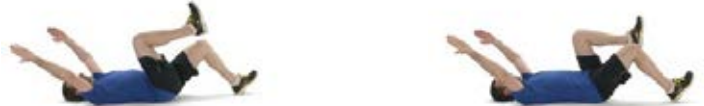
## CHAPTER #2. CORE STRENGTHENING EXERCISES 16

### Exercise #2. Partial sit-up



- Lie on back with knees bent and feet flat on the floor.
- Tighten stomach muscles and flatten low back against the floor.
- Tuck chin to chest.
- With hands resting on thighs, curl upper body forward until your shoulders clear the floor.
- Don't hold your breath. It helps to breathe out as you lift your shoulders up.
- Lower back your head and shoulders.

### Progression #2a. Modified dead bug, marching



- Lying on back, knees bent with heels touching the floor, and toes pointing up with arms raised as shown.
- Engage your core muscles, keeping low back as flat as possible.
- Begin to raise one leg in a marching motion.
- Slowly lower it while raising the opposite leg.
- Continue to alternate legs.
- Arms remain stationary throughout.

## CHAPTER #2. CORE STRENGTHENING EXERCISES 17

### Progression #2b. Modified dead bug, marching



- Lying on back, raise both legs in the air, with knees at 90° and arms raised as shown.
- Engage core muscles and keep low back as flat as possible.
- Begin to lower one leg in a marching motion.
- Continue to alternate legs.
- Arms remain stationary throughout.

### Progression #2c. Dead bug



- Lie on back with knees and hips bent to 90° and arms vertical.
- Brace the core muscles lightly to prevent any spinal movement and maintain a steady belly breathing.
- Lower one leg and the opposite arm toward the floor and return to the starting position under control.
- Repeat with the other leg and opposite arm.

## CHAPTER #2. CORE STRENGTHENING EXERCISES 18

### Exercise #3. Bird dog (top of chair)



- Rest hands, arms outstretched, on a chair, knees slightly bent. Keep back straight
- Slowly lift one hand and the opposite foot, keeping the rest of your body still. Raise the straight arm and leg, then return to the starting position, slowly.
- Alternate, keeping your core stable during each step.
- Repeat.

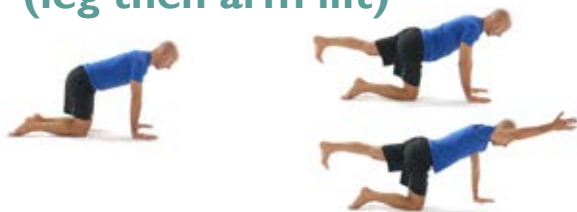
### Progression #3a. Bird dog (base of chair)



- Rest hands, arms outstretched, on a seat. Knees slightly bent and back straight, avoid dropping head towards ground; tuck chin in slightly.
- Slowly lift one hand and the opposite foot and keep the rest of your body still. Raise the straight arm and leg, then return to the starting position, slowly.
- Alternate, keeping your core stable during each step.
- Repeat.

## CHAPTER #2. CORE STRENGTHENING EXERCISES 19

### Progression #3b. Bird dog (leg then arm lift)



- On hands and knees with knees directly under hips and hands directly under shoulders.
- Keep back in neutral position and chin tucked in slightly.
- Tighten slightly core and back muscles, then extend one leg behind, keeping your back and pelvis still.
- Then, extend the opposite arm in front while keeping your balance.
- Move with purpose, pretend to grab something just out of reach with hand and press into imaginary wall behind you with foot
- Lower leg and arm back to the floor and repeat with the other leg and opposite arm.

### Progression #3c. Bird dog



- On hands and knees with knees directly under hips and hands directly under shoulders.
- Keep back in neutral position and chin tucked in slightly.
- Tighten slightly core, back muscles and pelvic floor muscles then lift one arm and the opposite leg **without** allowing the trunk or pelvis to move or rotate.
- Try to grab something far away in front of you with your hand and touch an imaginary wall far behind you with your foot instead of just lifting them up.
- Lower leg and arm back to the floor and repeat with the other leg and the opposite arm.

## Exercise #1. Semi tandem stance



- Stand in front of a sturdy object for balance and safety.
- Place feet one in front of the other but staggered apart, much like taking a step.
- Looking straight ahead.
- Try to keep standing in this position without holding onto your sturdy object.
- Switch feet around and repeat activity.

## Progression #1a. Tandem stance with head turn



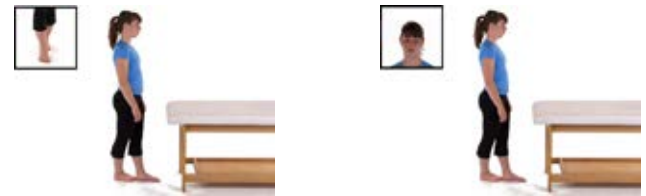
- Stand in front of a sturdy object for balance and safety.
- Place feet one in front of the other in line so that the heel of the front foot touches the toes of the back foot.
- Turn head from side to side without holding on.
- Switch feet around and repeat activity.

## Progression #1b. Tandem stance with arm swing



- Stand in front of a sturdy object for balance and safety.
- Place feet one in front of the other in line so that the heel of the front foot touches the toes of the back foot.
- Swing arms without holding on.
- Switch feet around and repeat activity.

## Progression #1c. Tandem stance eyes closed



- Stand in front of a sturdy object for balance and safety.
- Place feet one in front of the other in line so that the heel of the front foot touches the toes of the back foot.
- Once feeling steady, close eyes and try to keep standing without holding on.
- Switch feet around and repeat activity.

## Exercise #2. Single leg balance (finger on table)



- Stand in front of a table or counter. Grab its edge.
- Bend knees very slightly.
- Elevate one foot. Rest the index finger of dominant hand on top of the table. Remove non-dominant hand.
- Hold this position.
- Avoid pressing the table with index finger; aim for light contact instead.
- Switch feet and repeat activity.

## Progression #2a. Single leg balance (head turn)



- Stand in front of a sturdy object for balance and safety.
- Bend knees very slightly.
- Elevate one foot and turn head from side to side without holding on.
- Switch feet and repeat activity.

## Progression #2b. Single leg balance (arm swing)



- Stand in front of a sturdy object for balance and safety.
- Bend knees very slightly.
- Stand on one leg with both arms parallel to the ground and straight, one in front of you and one on the side.
- Alternate the position of arms while keeping your balance.
- The faster you do the movement the harder the exercise will be.
- Switch feet and repeat activity.

## Progression #2c. Single leg balance (eyes closed)



- Stand in front of a sturdy object for balance and safety.
- Bend your knees very slightly.
- Stand on one foot.
- Once feeling steady, close eyes and try to keep standing without holding on.
- Switch feet and repeat activity.
- Progress by standing on a folded towel then on a pillow.

# CHAPTER #3. BALANCE AND PROPRIOCEPTION

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## Exercise #3. Proprioception clock (12, 3, 6)



- Standing on left foot with slight bend in knee.
- Begin to lightly tap the floor on an imaginary clock with your right leg by tapping forward (12 o'clock) sideways (3 o'clock) and backwards (6 o'clock).
- Be sure to tap then return foot back to starting position before tapping next number on clock.
- Complete on opposite leg.

## Progression #3a. Proprioception clock (12 to 6)

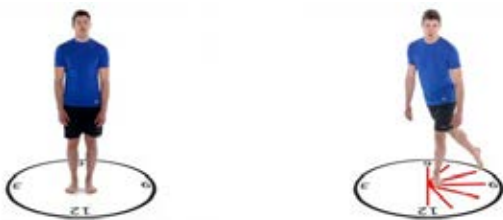


- Stand on left leg with slight bend in knee.
- Begin to lightly tap the floor on an imaginary clock around you with your right leg by tapping forward (12 o'clock) and continue your way to 1, 2, 3, 4, 5 and 6.
- Be sure to tap then return foot back to starting position before tapping next number on clock.
- Complete on opposite leg.

# CHAPTER #3. BALANCE AND PROPRIOCEPTION

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## Progression #3b. Proprioception clock (6 to 12)



- Stand on left leg with slight bend in knee.
- Begin to lightly tap the floor on an imaginary clock around you with your right foot.
- Start with tapping behind (6 o'clock) and continue your way to 7, 8 and 9 crossing behind.
- Be sure to tap then return foot back to starting position before tapping next number on clock.
- Then cross forward with right leg and tap to 9, 10, 11 and finally 12 o'clock.
- Turn your hips when you're toe tapping when crossing behind or forward.
- Complete on opposite leg.

## Progression #3c. Proprioception clock (any of the above)

- Progress any of the proprioception clock exercises by standing on a folded towel then on a pillow and progressing to eyes closed.

## CHAPTER #4. LOWER BODY STRETCHES

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### Stretch #1. Seated quadriceps (front of thigh)



- Sit on the side edge of a chair with no arm rests.
- Position right buttock cheek on the seat to allow you to extend left leg backwards.
- Keep back neutral.
- Feel a comfortable stretch on the front of left hip/thigh.
- To enhance the stretch, lean back slightly and position left foot either on toes or place the top of left foot on the floor.
- Hold the position as recommended and breathe normally.
- Complete on opposite leg.

### Stretch #1a. Lying quadriceps



- Lie on side and grab the top ankle with one hand to pull foot towards buttock until you feel a gentle stretch on front of the elevated leg.
- Hold the stretch, keeping lower back neutral
- Return to the initial position.
- Complete on opposite leg.

## CHAPTER #4. LOWER BODY STRETCHES

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### Stretch #1b. Standing quadriceps



- Stand tall with a chair in front for balance and a chair behind.
- Place top of foot of one leg on the chair's armrest OR seat behind you (about 2 feet in height)
- Keep back straight and hips / pelvis neutral.
- You can accentuate the stretch by pushing the hips forward.
- Hold, feeling a comfortable stretch in front leg/thigh of bent leg.
- Complete on opposite leg.

### Stretch #1c. Standing quadriceps



- Stand in front of a chair and rest one hand on it.
- Grab the top of left ankle with left hand and pull foot/heel towards buttock to feel a gentle stretch in front of the left thigh.
- Hold the stretch, keeping lower back neutral and return to the initial position.
- Complete on opposite leg.



## Stretch #2. Seated hamstrings (back of thigh)



- Sit on edge of a sturdy chair with one leg straight out in front and one bent in a 90 degree angle.
- Press hips back while keeping back straight, lean forward to feel a stretch behind straight leg.
- Place hands either on hips or on the thigh of the bent leg.
- Keep foot of the straight leg relaxed (toes resting forward)
- Hold for required duration.
- Complete on opposite leg.

## Stretch #2a. Supported hamstrings



- Sit on firm surface with one leg straight out on the bed in front and opposite leg on floor for balance.
- Relax the foot (facing forward) to enhance the hamstring stretch.
- Keep back straight, pull shoulders back, slightly arch lower back and bend through the hips to lower upper body toward straight leg to feel a stretch behind the thigh.
- Maintain the position, breathe and relax.
- Complete on opposite leg.

## Stretch #2b. Lying hamstrings



- Lying on back with one knee bent and opposite leg lifted with slight bend in the knee.
- Support the lifted leg with both hands behind the thigh.
- Slowly pull the leg toward body keeping the leg as straight as possible to feel a comfortable stretch in that thigh.
- Complete on opposite leg.

## Stretch #2c. Standing hamstrings



- Place one foot forward while resting heel on ground, slight bend in knee and foot relaxed.
- Keep back straight as you hinge forward from the low back/hips.
- Place hands on thigh of the bent leg, just above the knee for support.
- Lower the torso until there is a slight pull in the back of the thigh of the straight leg, weight should be in the heel of the standing leg.
- Hold the stretch for the recommended time.
- Complete on opposite leg.

## Stretch #3. Seated piriformis/ glutes (hip/buttocks)



- Sit tall in chair and place foot over opposite lower leg, you can use a towel to assist with lifting the leg.
- Let knee fall to the side and push lightly on it to open the leg, while keeping back straight.
- Aim for a comfortable stretch in your buttock and hip.
- Hold the stretch for the recommended time.
- Complete on opposite leg.

## Stretch #3a. Seated piriformis/ glutes



- Sit on edge of chair lifting one foot over the opposite knee in a figure 4 position and opposite leg bent 90 degrees.
- If you don't feel a stretch in the hip/buttocks of the bent leg, then gently push down on your inner knee to open the leg.
- If you still want a greater stretch in the bent hip, then with a neutral spine lean your upper body forward until you feel a comfortable stretch in your buttocks of the bent leg.
- Hold for required duration.
- Complete on opposite leg.

## Stretch #3b. Lying piriformis/ glutes



- Lie on back with knees bent and feet on the floor.
- Place the ankle of the leg to stretch on top of your other knee.
- Gently push on the crossed knee until a stretch is felt in the hip or buttocks of the elevated leg.
- Complete on opposite leg.

## Stretch #3c. Lying piriformis/ glutes



- Lie on back with knees bent and feet on the floor.
- Place the ankle of the leg to stretch on top of other knee.
- Gently pull the lower knee toward the chest with hands placed around the thigh until a stretch is felt in the hip or buttocks of the elevated leg.
- Complete on opposite leg.



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*Minto-Mapleton*

Family Health Team



MOUNT FOREST  
FAMILY HEALTH  
TEAM

*"Growing into a healthy, rural community."*



Upper Grand  
Family Health Team

SENIORS' CENTRE *for* EXCELLENCE