This exercise handout covers the following:

- General warm up
- Leg strengthening exercises
- Strategies & exercises to improve balance, & prevent falls.

**GENERAL WARM UP**

The general warm up should be done before beginning all exercise sessions.

1. **Breathing Exercises** –
   Breathing Exercises are a form of relaxation. It keeps you healthy & prevents you from getting tired easily.

   1. Sit up straight in your chair.
   2. Place one palm on your chest and the other on your stomach.
   3. Close your eyes and concentrate on your breath.
   4. Take a long and deep breath through your nose, and feel your chest and stomach pushing “OUT” against your palm, like air is being filled in a balloon.
   5. Hold the breath for 5 counts (1…2…3…4…5).
   6. Slowly leave the breath through your mouth, as if blowing out a candle. Try and blow out for as long as you can.
   7. Repeat twice.

   1. Sit straight, close your eyes and concentrate on your breath.
   2. Raise both arms slowly from the sides (as shown in the figure).
   3. While you raise your arms, take a long and deep breath through your nose.
   4. Hold this position for 5 counts.
   5. Slowly bring your hands down (as shown in the figure), and leave the breath slowly through your mouth, as if you are blowing out a candle.
   6. Repeat twice.

2. **Motion exercises** –
   These exercises keep your joints moving freely and help to reduce stiffness. We will start from your neck, and one by one, move all your joints up to your toes.
   a. **Neck Exercises:**
      Make sure your back is straight (and does not move) during all the neck exercises. Only your head and neck should move. Perform these exercises slowly and smoothly.
1. Take your head as far back as possible i.e. look up at the ceiling.  
2. Hold this position for 5 counts (1..2..3..4..5)  
3. Now bend your head down i.e. look down at the floor.  
4. Hold this position for 5 counts.  
5. Repeat twice.  
   Caution: If you are feeling dizzy, please stop this exercise, and visit a physician.  

1. Turn your head to the right.  
2. Try and get your chin in line with your shoulder.  
3. Hold this position for 5 counts.  
4. Do the same on the left side.  
5. Hold this position for 5 counts.  
6. Repeat twice on each side.  
   Note: Make sure you do not lift your shoulder to touch your ear. The shoulder should remain level.  

**c. Shoulder, Elbow and Finger Joint exercises**  

1. Sit up straight, & place your arms at your side, i.e., elbows should be straight and hands left loosely at the side  
2. Raise your shoulders up (as shown in the figure).  
3. Now bring your shoulders down and relax completely.  
4. Repeat 5 times.  

1. Sit up straight, make a fist (closed) with your palms & fingers, and bend your elbows (as shown in the picture).  
2. Take both your hands up, while you straighten your elbows and open your fingers.  
   (Note: Your elbows should be straight and your fingers spread out.)  
3. Now come back to the starting position again.  
4. Repeat 5 times.
1. Sit up straight; come slightly forward in your chair. Place your feet firmly on the ground and a good distance apart.
2. Cross your arms across the chest.
3. Now completely twist to your left (as shown in the picture). (Note: You must twist from your waist, & not lift your buttocks or your feet.)
4. Also turn your head to the left as you twist to the left.
5. Now come back to your original sitting position.
6. Do the same on the right side.
7. Repeat 5 times on each side.

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e. Trunk Bending

1. Sit straight back in your chair such that your back and buttocks are touching the backrest of your chair.
2. Keep your legs apart and feet firmly on the ground.
3. Take both your hands straight up, fingers spread, & bend your body backwards, slightly.
4. Next bend forward and touch the ground. (Note: Do not force the movement. Slowly try and place your palms on the floor.)
5. Repeat 5 times
   Caution: If you have back pain or any back related problem, please skip this exercise.

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f. Marching in Sitting

1. Sit straight with your back and buttocks against the backrest of the chair.
2. Now march in this sitting position, i.e., lift each leg alternately (left..right..left..right) (Note: Maintain a steady rhythm that matches the count).
3. Perform 10 repetitions on each leg

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g. Knee Flexion-Extension (Knee Kicks)

1. Sit with your back straight against the chair.
2. Take one leg up straight in front of you.
3. Make sure your knee is completely straight. (Note: You may feel a stretch or slight pain at the back of the knee or thigh – this is due to a tight muscle and is not harmful).
4. Bring your leg back to its original position.
5. Repeat these steps 5 times.
6. Next, do the same with the other leg. Repeat 5 times
h. Ankle exercises

1. Sit back in your chair.
2. Raise both your legs slightly off the ground.
3. Rotate both your feet in the clockwise direction.
4. Repeat 5 times.
5. Rotate both your feet in the anti-clockwise direction.
6. Repeat 5 times.

*Note: If you are unable to do this exercise on both feet together, can alternately do it on each foot one by one.*

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**LEG STRENGTHENING**

Leg Strengthening exercises are EXTREMELY important for a PwP, as this will improve your ability to walk, to stand, to climb stairs and most importantly, will help in improving your balance.

a. Marching in standing

1. Stand with a chair in front of you for support.
2. Lift each leg alternately and start marching in place.
   *Note: Make sure you lift your legs completely off the ground.*
3. March continuously for 1 minute.
   *Take 5 deep breaths after this exercise.*

b. Side kicks (Hip abduction)

1. Stand straight, holding a stable chair or grill, on your side (or alternately in front), for support *(as shown in the picture).*
2. Now raise your right leg **slowly** to the side to about 30 degrees.
3. Hold it there for 5 counts *(1..2..3..4..5)*
4. Then **slowly** bring back the leg to its original position.
   *[Note: Make sure your body is upright throughout the movement and your knees are straight and toes are pointing forwards.]*
5. Perform 5 repetitions first on the right side, and then on the left side.
   *Take 5 deep breaths after this exercise to relax.*
c. **Back kicks (Hip Extension)**

1. Keep a stable chair in front of you & hold onto the backrest for support (as shown in the figure).
2. **Slowly** take your leg backwards, from the hip, to about 30 degrees.
   [Note: Keep your back straight & do not bend forward when you are lifting your leg. Keep your knee as straight as possible.]
3. Hold it there for 5 counts.
4. Then bring it back **slowly** to its original position.
5. Perform 5 repetitions, first on the right leg and then on the left leg.
   *Take 5 deep breaths after this exercise to relax.*

If you are tired and would like to rest, take a break for 2 minutes by sitting & doing some breathing exercises.

d. **Knee bending**

1. Keep a stable chair in front of you & hold the backrest for support (as shown in the picture).
2. Bend your leg backwards at the knee, taking your heel towards your buttocks, as much as you can.
3. Bring it back down.
4. Perform 10 repetitions first on the right and then on the left leg.
   *Caution: if you have had knee replacement surgery, bend their knees only within your personal available range and don’t try & touch your heel to your buttocks.*

e. **Mini-squats**

1. Stand with your feet wide apart with a chair in front of you for support (you can even stand using your window grill for support instead of a chair. It will also give you more support).
2. With your feet firmly on the ground, Bend both your knees down to about 30 degrees.
   [Try to keep your back as straight as possible and heels should remain on the floor.
3. Hold this position for 5 counts.
4. Then stand up straight again.
5. Perform 10 repetitions.
   *Take 5 deep breaths after this exercise to relax.*
f. Knee strengthening

1. Sit up straight in a chair, with your back against back rest.
2. Take one leg straight out in front of you, making sure your knee is completely straight.
3. Hold this position for 5 counts.
4. Then take your leg back down.
5. Perform 10 repetitions with the same leg.
6. Then repeat it with the other leg.

BALANCE EXERCISES

The first, basic and most important thing to remember is that when standing in one place, stand with your feet slightly apart to give yourself a wider and more stable standing base (B). This is illustrated here:

If you find any of the following exercises difficult or if you’re feeling unsteady, stop and please ask a caregiver for help.

Stand with your back against the wall and keep a chair in front of you (for the following exercises).

Caution: If you have balance problems then do these exercises only when your caregiver is standing next to you during these exercises.

a. Heel raises

1. Place a chair in front of you and hold the backrest for support.
2. Stand with your feet slightly apart.
3. Lift your heels slowly, off the ground until you are standing on your toes.
4. Hold this position for 10 counts.
5. Then bring your heel slowly down to the ground.
6. Repeat 5 times

[Note: If you are able to do this exercise easily and balance easily, then you can slowly remove the support of one hand from the chair, and hold the position for 10 counts. You can then further move on to removing both hands off the support and then stand on your toes.]
b. **Toe Raises**

1. Place a chair in front of you and hold the backrest for support.
2. Stand with your feet slightly apart.
3. Lift your toes slowly off the ground until you are standing on your heels.
4. Hold this position for 10 counts.
5. Then bring your toes slowly to the ground.
6. Repeat 5 times.

![Toe raises image]

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**Tandem Stance**

1. Place a chair in front of you and hold it for support.
2. Stand with one leg in front of the other such that the toe of the back foot is touching the heel of the front foot (*as shown in the picture*).
3. Hold this position for 10 counts.
4. Bring your feet back to normal standing position.
5. Repeat 5 times.
6. Then repeat the same with the other leg forward.

Note: If you are able to do this exercise easily and balance easily, then you can slowly remove the support of one hand from the chair, and hold the position for 10 counts. You can then further move on to removing both hands off the support and then continuing with the exercise.

![Tandem stance image]

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d. **One leg standing**

1. Place a chair in front of you and hold the backrest for support.
2. Lift one leg (*as shown in the picture*)
3. Hold this position for 10 counts.
4. Repeat 5 times.
5. Then repeat the same with the other leg.

Note: If you are able to do this exercise easily and balance easily, then you can slowly remove the support of one hand from the chair, and hold the position for 10 counts. You can then further move on to removing both hands off the support and then continuing with the exercise.

![One leg standing image]

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*If you are tired and would like to rest, take a break for 2 minutes by sitting & doing some breathing exercises.*
e. **Forward stepping**

1. Stand with the chair at your side and hold onto it for support.
2. Place one foot in front, like you are taking a step forward.
3. Transfer all your weight forward to the leg which is in the front.
4. Hold this position for 5 counts.
5. Then take the same leg back to the original position.
6. Repeat 10 times.
7. Then do the same with the other leg.

Note: Perform the exercise first with support and then without the support.

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f. **Backward stepping**

1. Stand with the chair at your side and hold onto it for support.
2. Place one foot behind, like you are taking a step backward.
3. Transfer all your weight backward to the leg behind.
4. Hold this position for 5 counts.
5. Then take the same leg back to the original position.
6. Repeat 10 times.
7. Then do the same with the other leg.

Note: Perform the exercise first with support and then without the support.

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**Two important stepping strategies, to prevent a fall if, at any time, you feel that you are falling:**

- If someone accidently pushes you from behind, take 1 or 2 steps forward to try and steady yourself.
- If someone pushes you from the front, try and take 1 or 2 steps backwards to steady yourself.

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**FALL PREVENTION STRATEGIES**

- **Being aware of which of these factors is a prominent reason for your falls, is the first step in preventing a fall.”**

For this there is something called a ‘Fall Diary’ which you need to maintain. A fall diary is a diary where you record details of your falls. It has been provided to you along with this handout, & below is an example of how to maintain it.
The second step for preventing falls is EXERCISE. You must exercise daily and especially focus on the exercises in this handout - strengthening your leg muscles and improving your balance."

The third important step is making your home safe by taking certain simple precautions. One can place handrails on the walls. Making sure that there are no objects or loose carpets thrown on the floor can also go a long way in minimizing the risk of falls."

The fourth important step is to think before starting any activity. You should think about the possible factors that could make you fall during the activity and take the necessary precautions.

<table>
<thead>
<tr>
<th></th>
<th>Day and Date of Fall</th>
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<tbody>
<tr>
<td>2</td>
<td>Where did you fall?</td>
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<tr>
<td>3</td>
<td>Which direction did you fall in?</td>
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<tr>
<td>4</td>
<td>What time did you fall?</td>
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<tr>
<td>5</td>
<td>Where you in your “ON” or “OFF” period? (only if fluctuations present)</td>
</tr>
<tr>
<td>6</td>
<td>What was the reason for your fall?</td>
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<tr>
<td>7</td>
<td>What were you doing when you fell?</td>
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<tr>
<td>8</td>
<td>Were you injured?</td>
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<tr>
<td>9</td>
<td>Did you get up by yourself?</td>
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<td></td>
<td>Any other comments.</td>
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</tbody>
</table>
# FALL DIARY

1. Day and Date of Fall
2. Where did you fall?
3. Which direction did you fall in?
4. What time did you fall?
5. Where you in your “ON” or “OFF” period? (only if fluctuations present)
6. What was the reason for your fall?
7. What were you doing when you fell?
8. Were you injured?
9. Did you get up by yourself?
10. Any other comments.