

ANNEXURE A

PHYSICAL EXERCISE PROGRAMMES FOR OLDER PERSONS

The following is important to remember while performing any form of physical exercises:

- To breathe normally throughout the activity.
- Not to hold your breath while performing the activity.
- To perform all the activities in a smooth, rhythmical movement.
- To avoid bouncing and jerking movements.
- Wear the right clothing while performing physical exercises, i.e. clothing should be loose fitting and comfortable and shoes must fit well and support the feet especially the arch of the foot.

Physical exercise programmes for mobile and semi mobile older persons should include the following forms of exercises:

- Aerobic or cardio-vascular exercises
- Strength or resistance exercises
- Balance exercises
- Stretching or flexibility exercises

1. AEROBIC OR CARDIO-VASCULAR EXERCISES

The following activities are aerobic or cardio-vascular exercises:

- Walking
- Climbing stairs
- Swimming
- Dancing

The most common aerobic or cardio-vascular exercise for older persons is walking because walking is:

- the most natural form of exercise;
- requires no special skills;
- requires no costly equipment;
- a self regulated form of exercise, i.e. the person can regulate the intensity, duration and frequency;
- has low ground impact; and
- safe

The following are important to remember when performing aerobic or cardio-vascular exercises:

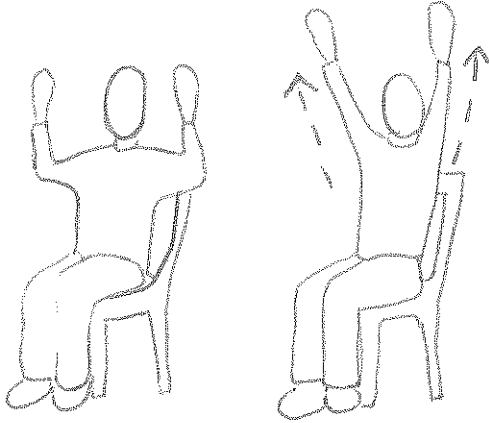
- For optimal benefit, the above activities should preferably be performed for 30 minutes and 5 days a week.
- If 30 minutes at once is hard to achieve, the 30 minutes can be broken down into smaller sessions of activity through out the day, e.g. 2 x 15 minutes or 3 x 10 minutes.
- It is important to start each aerobic or cardio-vascular exercise session by first warming up, e.g. by starting off with at a comfortable walking pace.
- When performing specifically walking or stair climbing as aerobic or cardio-vascular exercise, remember the following:
 - Posture is very important, i.e. the:
 - chin should be kept up,
 - shoulders should be slightly pulled back;
 - heel should touch the ground first with the toes pointing forward; and
 - arms should swing comfortably along side his body.
 - Start at a very slow pace to prevent injuries and muscle stiffness and build walking and climbing speed up at a comfortable pace over a period of time.
- End each aerobic or cardio-vascular exercise session with a cooling down session, e.g. by ending off with a comfortable walking pace, followed by stretching exercises while the muscles are still warm (*see stretching or flexibility exercises*).

2. STRENGTH OR RESISTANCE EXERCISES

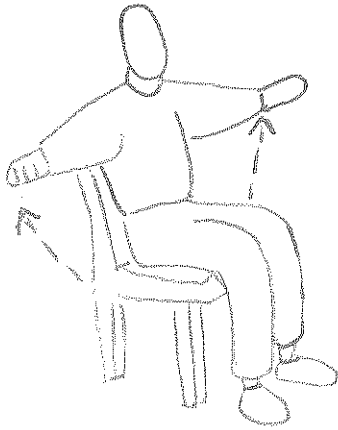
Strength or resistance exercises should be done for both the upper and the lower body.

The following are important to remember when performing strength or resistance exercises:

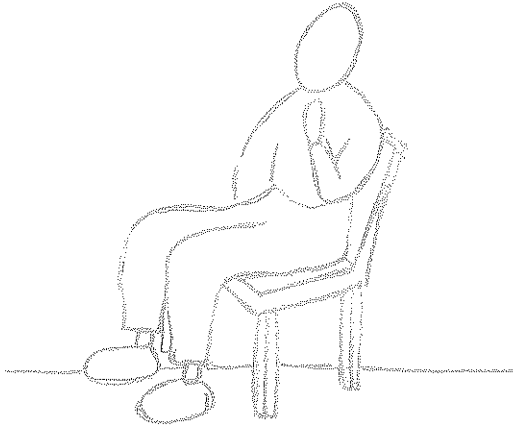
- For optimal benefit, strength or resistance exercises should preferably be performed two to three times a week with each session consisting out of two sets of 8-15 repetitions (this can be done by doing 8-15 repetitions in a row, wait a minute, and then do another set of 8-15 repetitions of the same exercise).
- It is also advisable not to exercise both the upper body and the lower body on the same day but to alternate between the two.
- The movements of each exercise should be performed slowly and in a controlled manner.
- The older person should not hold his breath while performing the exercises and should stop if he feels any discomfort or pain.
- To prevent muscle stiffness, stretch after each strength or resistance exercise session (*see stretching or flexibility exercises*).

UPPER BODY**Overhead arm raises**

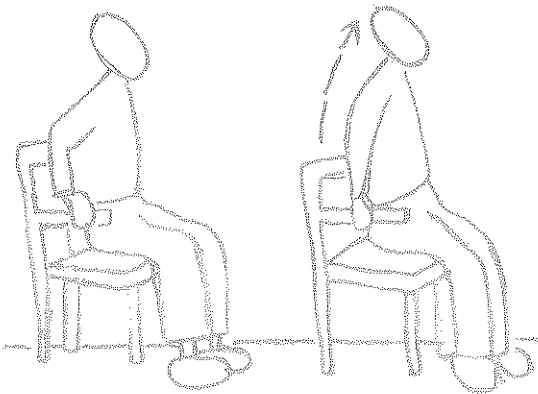
1. Sit or stand with feet flat on the floor, shoulder-width apart and arms raised at shoulder height with hands facing the ceiling
2. Slowly lift both arms upwards until arms are straightened
3. Hold for one count
4. Lower arms slowly back to the sides

Side arm raises

1. Sit or stand with feet flat on the floor, shoulder-width apart and hands at the sides facing downwards
2. Slowly lift both arms to shoulder height
3. Hold for one count
4. Lower arms slowly back to the sides

Arm curls

1. Sit or stand with feet flat on the floor, shoulder-width apart and hands at the sides facing downwards
2. Slowly lift one or both arms towards the chest while keeping elbows close to the body
3. Hold for one count
4. Lower arm(s) slowly back

Chair dips

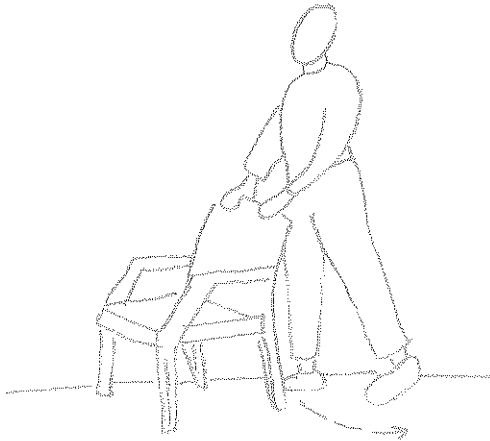
1. Sit with feet flat on the floor, shoulder-width apart
2. Lean slightly forward while keeping the back straight
3. Hold the arms of the chair and push yourself up and out of the chair
4. Hold for one count
5. Lower yourself slowly back into the chair again

LOWER BODY**Hip raises**

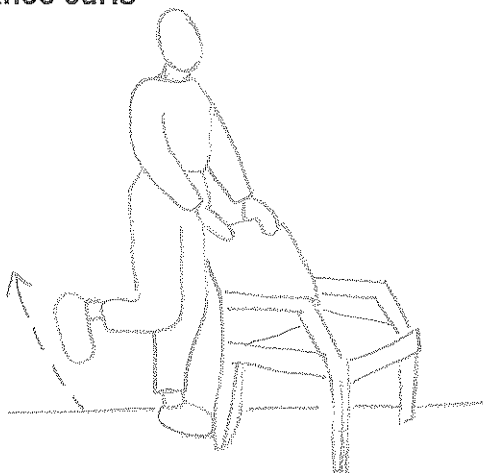
1. Stand behind a chair with feet flat on the floor, shoulder-width apart
2. Hold on to the chair for balance and bend one knee slowly upwards as far as comfortable
3. Hold for one count
4. Lower the leg slowly down again
5. Repeat with the other leg

Back leg raises

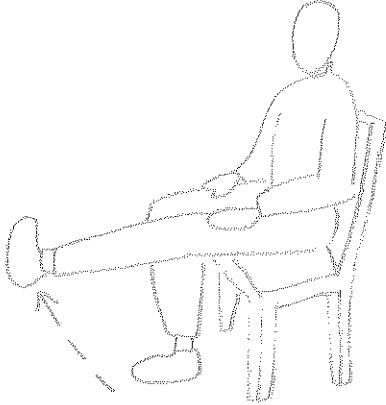
1. Stand behind a chair with feet flat on the floor, shoulder-width apart
2. Hold on to the chair for balance and lift one leg slowly to the back as far as comfortable without bending the knee or leaning forward
3. Hold for one count
4. Lower the leg slowly down again
5. Repeat with the other leg

Side leg raises

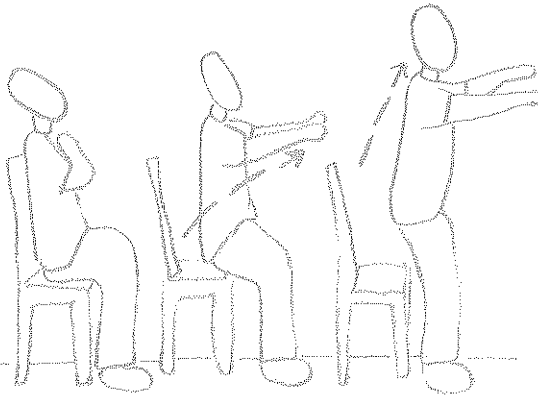
1. Stand behind a chair with feet flat on the floor, slightly apart
2. Hold on to the chair for balance and lift one leg slowly to the side as far as comfortable while keeping the back straight and bending the other leg slightly
3. Hold for one count
4. Lower the leg slowly down again
5. Repeat with the other leg

Knee curls

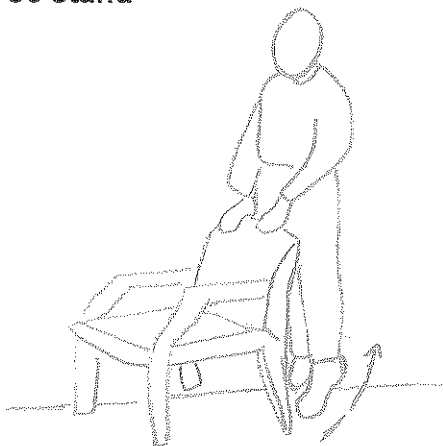
1. Stand behind a chair with feet flat on the floor, slightly apart
2. Hold on to the chair for balance and lift one leg slowly to the back as far as comfortable as if to touch your buttocks while slightly bending the other leg
3. Hold for one count
4. Lower foot slowly down again
5. Repeat with other leg

Leg straightening

1. Sit with feet flat on the floor, slightly apart and back supported against the chair
2. Straightened the one leg slowly in front of you as far as comfortable while pointing the toes upwards
3. Hold for one count
4. Lower the leg slowly down again
5. Repeat with other leg

Chair stand

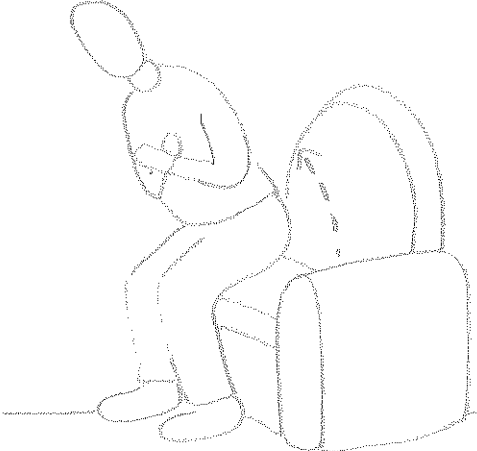
1. Sit towards the front of the chair with feet flat on the floor, shoulder-width apart
2. Cross hands in front of chest and lean slightly backwards
3. In one motion bring your arms in front of you while moving your body to stand slowly up from out of the chair
4. Return slowly back into a sitting position in the chair

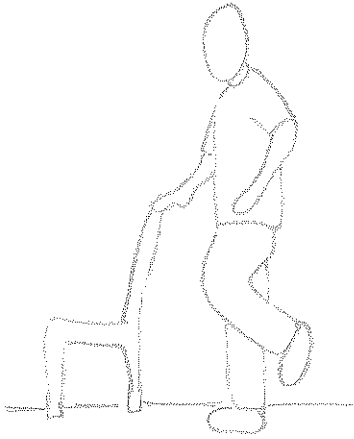
Toe stand

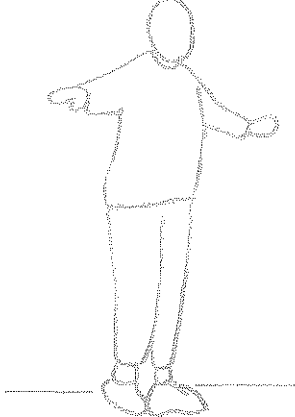
1. Stand behind a chair with feet flat on the floor, slightly apart
2. Hold on to the chair for balance and lift the heels as high as comfortable by standing on the balls of the feet
3. Hold for one count
4. Lower the heels slowly down to the floor again

3. BALANCE EXERCISES

Balance exercises are exercises you can do anytime and anywhere e.g. while waiting for your transport, watching television, before going to bed. Although balance exercises can be done anytime and anywhere, a good routine would be perhaps to do these exercises as part of an exercise programme.

<p>Chair stand</p> 	<ol style="list-style-type: none"> 1. Sit towards the front of the chair with feet flat on the floor, shoulder-width apart 2. Cross hands in front of chest and lean slightly backwards 3. In one motion, bring your arms in front of you while moving your body to stand slowly up from out of the chair 4. Return slowly back into a sitting position in the chair
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<p>Stand on one foot</p> 	<ol style="list-style-type: none"> 1. Stand behind a chair with feet flat on the floor, slightly apart 2. Hold on to the chair for balance and lift one leg slowly while balancing on the other leg 3. Hold for up to 10 counts 4. Lower the leg slowly down again 5. Repeat with the other leg <p>(As balance improves, use fingertip(s) and finally use no hands)</p>
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<p>Heel-to-toe walk</p> 	<ol style="list-style-type: none">1. Put the heel of one foot in front of the toes of the other foot so that the heel and toes touch each other2. Start walking while continuing placing the heel of the one foot in front of the toes of the other foot3. Repeat for 20 steps while focussing on balancing yourself
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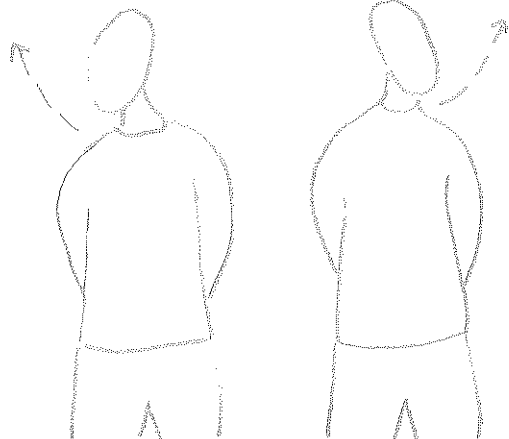
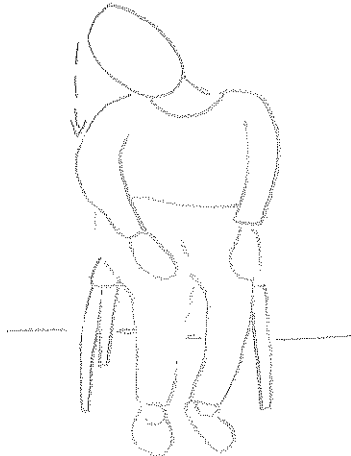
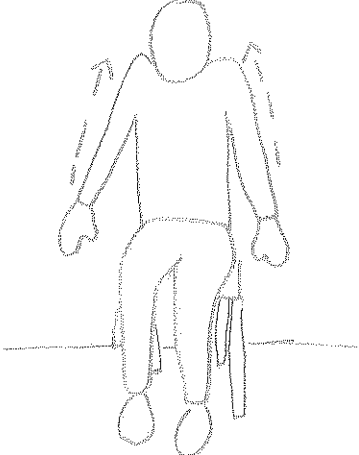
4. STRETCHING OR FLEXIBILITY EXERCISES

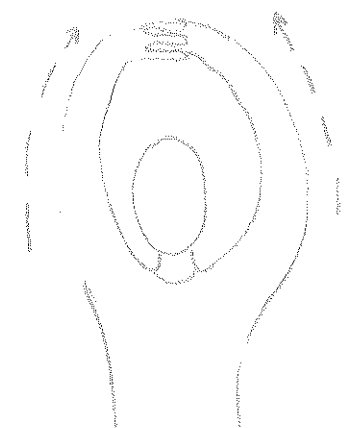
Stretching or flexibility exercises should be done for both the upper and the lower body.

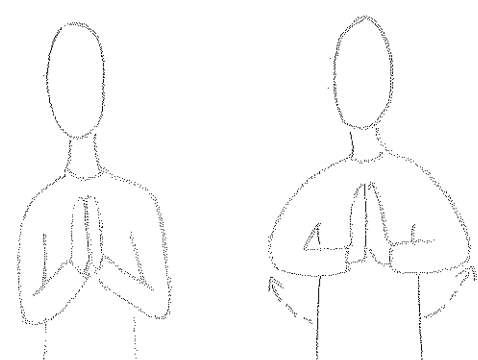
The following are important to remember when performing stretching or flexibility exercises:

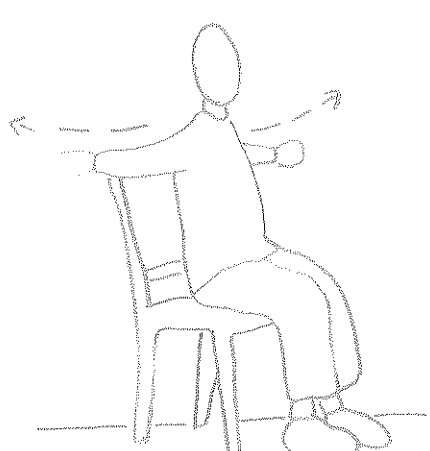
- Stretching or flexibility exercises should be performed for 5 to 10 minutes after aerobic or cardio-vascular exercises and strength or resistance exercises while the muscles are still warm.
- Each exercise can be done 3 to 5 times per session and the stretch position should be held for 10 to 30 counts.
- The movements of each exercise should be performed slowly and in a controlled manner without any jerking movements.
- Although stretching or flexibility exercises may cause discomfort, it should never be painful.

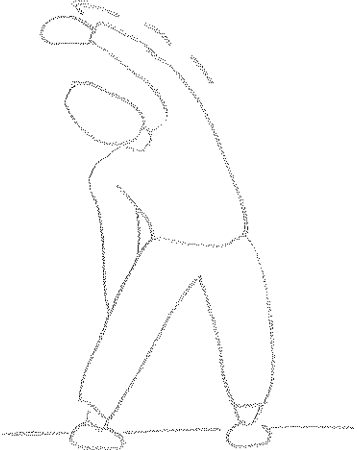
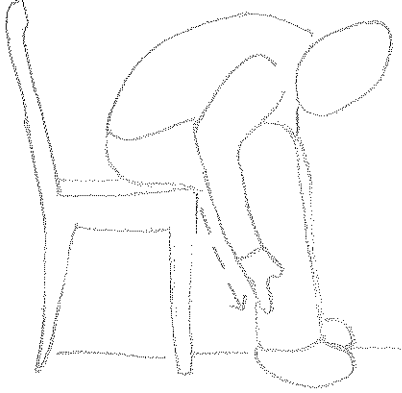
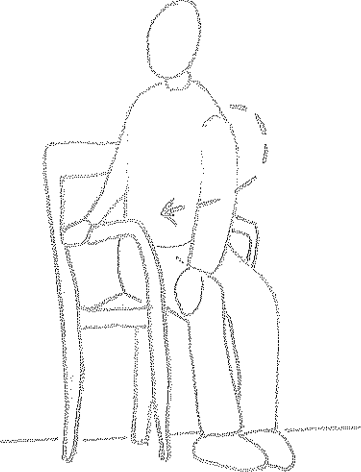
UPPER BODY

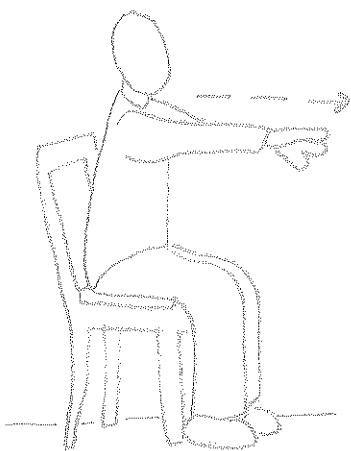
<p>Neck</p> 	<ol style="list-style-type: none"> 1. Sit or stand with feet flat on the floor, shoulder-width apart 2. Turn the head slowly to the right as far as comfortable while keeping the head in an upright position 3. Hold for 20 counts 4. Repeat to the left side
<p>Neck</p> 	<ol style="list-style-type: none"> 1. Sit or stand with feet flat on the floor, shoulder-width apart 2. Move the right ear slowly towards the right shoulder while stretching the left side of the neck 3. Repeat to the left side
<p>Shoulders</p> 	<ol style="list-style-type: none"> 1. Sit or stand with feet flat on the floor, shoulder-width apart 2. Lift the shoulders slowly up and towards the ears 3. Hold for a five counts 4. Lower the shoulders slowly down again

<p>Arms</p> 	<ol style="list-style-type: none"> 1. Sit or stand with feet flat on the floor, shoulder-width apart 2. Interlock the fingers of both hands and reach with the arms slowly above your head with your palms facing towards the ceiling 3. Push the palms gently upwards while straightening the elbows as far as comfortable 4. Hold for a five counts
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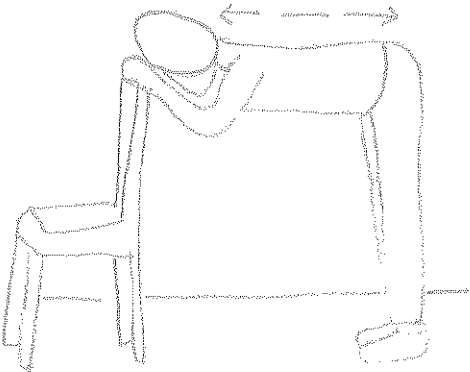
<p>Wrists</p> 	<ol style="list-style-type: none"> 1. Sit or stand with feet flat on the floor, shoulder-width apart 2. Place the palms of the hands together as if in a praying position 3. Lift the elbows slowly so that the front arms are parallel to ground while keeping the hands flat against each other 4. Press the palms gently together and hold for 20 counts
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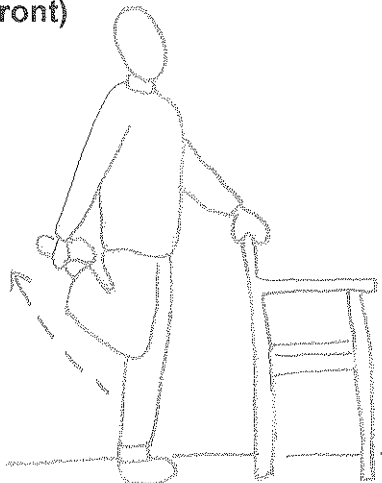
<p>Chest</p> 	<ol style="list-style-type: none"> 1. Sit or stand with feet flat on the floor, shoulder-width apart 2. Lift the arms up to shoulder height and with palms facing to the front 3. Move the arms now slowly to the back as far as comfortable while squeezing the shoulder blades together 4. Hold for 20 counts
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<p>Chest</p> 	<ol style="list-style-type: none"> 1. Stand with feet flat on the floor, shoulder-width apart and knees slightly bent 2. Slide the right arm slowly down against the right leg towards the ground until the right hand reaches the back of the right knee while lifting the left arm into the air and stretching it above the head 3. Hold for a five counts 4. Repeat to the other side
<p>Back</p> 	<ol style="list-style-type: none"> 1. Sit towards the front of the chair with feet flat on the floor, shoulder-width apart 2. Bend slowly forward while sliding the hands down the back of the legs and stretch as far as comfortable 3. Hold for 20 counts 4. Return slowly to a sitting position again
<p>Back</p> 	<ol style="list-style-type: none"> 1. Sit towards the front of the chair with feet flat on the floor, shoulder-width apart 2. Turn slowly to the right side while keeping the upper body as straight as possible and without moving the hips (the head should move with the upper body) 3. Reach with the left hand for the outside of the right thigh while placing the right hand on the arm of the chair or letting it rest comfortably on the side of the chair while stretching a little further 4. Hold for 20 counts 5. Return slowly back and repeat to the other side

<p>Back</p> 	<ol style="list-style-type: none"> 1. Sit with feet flat on the floor, shoulder-width apart 2. Hold the arms in front at shoulder height and palms facing outwards 3. Stretch slowly forward with the hands as far as comfortable while keeping the upper body still 4. Hold for 20 counts
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LOWER BODY

<p>Legs (back)</p> 	<ol style="list-style-type: none"> 1. Stand an arm's length behind a chair with feet flat on the floor, shoulder-width apart 2. Bend forward and reach for the back of the chair 3. Keep the back and shoulders straight while placing the hands on the back of the chair 4. Hold for 20 counts
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<p>Legs (front)</p> 	<ol style="list-style-type: none"> 1. Stand behind a chair with feet flat on the floor, shoulder-width apart 2. Hold on to the chair with the left hand for balance and bend the right leg to the back. 3. Take the right foot in the right hand while pointing the right knee to the floor 4. Pull the right leg gently as far as comfortable towards the buttock 5. Hold for 20 counts 6. Repeat with the left leg
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MAIN SOURCES:

EVERYDAY EXERCISES FOR OLDER PERSONS

Available from:

http://www.cpaas.sa.gov.au/benefits_exercise/exercise.html

US NATIONAL INSTITUTES OF HEALTH – NATIONAL INSTITUTE ON AGING.
Exercise & physical activity: Your everyday guide from the National Institute on Aging

Available from:

<http://www.nia.nih.gov/HealthInformation/Publications/ExerciseGuide>