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PATIENT AND CAREGIVER GUIDE TO MANAGING COVID-19 PATIENTS AT HOME

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This guide was created to help patients and caregivers of patients with COVID-19 that are discharged home. The exercises are designed to be done alone by the patient in their room. The caregiver can assist by providing instructions over the telephone. Please check with your medical provider if you have any cardiac disease or any other serious illness.

This manual is also available at: <https://tinyurl.com/thegqk4>

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What is COVID-19

This is a new virus which is causing serious medical illness in many countries of the world. Most patients have fever, dry cough, muscle pain and extreme weakness. In the majority of patients, the symptoms last 2-3 weeks and often resolve spontaneously. In some patients, COVID-19 can be a more serious illness causing pneumonia or affecting other organs, and require hospitalization. Doctors and scientists are learning about this disease and the information given below is based on current knowledge .

Symptoms of a Covid-19 infection (CDC.gov)

These symptoms may appear 2-14 days after exposure.

- Fever
- Cough
- Shortness of breath
- Loss of smell or taste

If you develop **emergency warning signs** for COVID-19 get **medical attention immediately**.

Emergency warning signs include*:

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion or inability to arouse
- Bluish lips or face

More information is available at: www.cdc.gov/coronavirus/2019

Caring for a COVID-19 patient at home.

These precautions should last until the medical authorities clear the patient

1. Monitoring the patient

- a. Check temperatures twice a day.
- b. Monitor for new symptoms such as chest pain, difficulty breathing, blue fingers or face, palpitations, changes in mental status, confusion, or swelling of legs. Contact your medical provider if these occur.

2. Isolation

- a. Isolate the affected person. They should be in a separate room. It is important to have good air circulation in the room, for example: air conditioning or keeping a window open.
- b. The patient should avoid all contact with older people, pregnant women or anyone with compromised immunity
- c. The patient should always wear a mask (see instructions below) and keep at least 6 feet away if the caregiver has to come into the room. Keep these interactions as brief as possible.
- d. If possible, the patient should have a separate bathroom. If this is not possible, then all other unaffected family members should use caution when using shared facilities. Use diluted bleach to wipe down door handles, toilet seat and handles, sinks, etc. each time the patient uses the bathroom. The patient should have their own toilet roll and towels which should be kept separately.
- e. The affected person should eat in their room and if possible, use disposable plates, knives and forks. If not, use gloves when washing their plates, spoons, knives and forks. Use diluted bleach and rinse well.

3. Hygiene and Cleaning

- a. The patient and caregiver should wash hands with soap and water regularly for at least 20 seconds.
- b. Encourage the patient to have a daily bath

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- c. The affected person's clothes should be washed separately and with bleach containing detergent using a hot wash(90⁰ C) for at least 30 minutes
- d. Use disposable gloves and a mask when entering the affected person's room to clean it.
- e. Dispose all their trash carefully. Use gloves and avoid handling it with your bare hands.
- f. Covid-19 virus can live on cardboard, plastic and food surfaces for several days. Discard all packaging or disinfect surfaces by wiping them down with a disinfectant solution. Wash all fruit and vegetables for at least 20 seconds using soap and water. Heat appears to kill the virus. However, frozen foods may harbor the virus so make sure all food is heated well. Microwaving until steam rises also appears to kill coronavirus.

4. Emotional and mental health

- a. Try to keep the patient's spirits up. Communicate regularly with them via phone, video calls, or social media
- b. Confirmed COVID-19 patients often have symptoms such as regret and resentment, loneliness and helplessness, depression, anxiety and phobia, irritation and sleep deprivation, and even panic attacks.
 - i. Try slow breathing, relaxation, meditation and mindfulness.
 - ii. If these symptoms are persistent or recurring, please seek professional help.

What to do if the caregiver is exposed accidentally to the patient's body fluid (saliva, tears, sputum, etc.)

- 1. If it falls on your intact skin, remove the contaminant with a tissue or gauze and apply 0.5% iodophor or 75% alcohol to the skin. Let the solution sit for at least 3 minutes for disinfection, thoroughly flush with running water .
- 2. If it falls on broken skin or mucous membrane such as the eyes, then flush with plenty of normal saline(salt water) or 0.05% iodophor for disinfection. Isolate yourself for 14 days and observe for symptoms.
- 3. If you have a sharp object injury, then squeeze blood out from top end to bottom end and flush the wound with running water . Then

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disinfect with 75% alcohol or 0.5% iodophor. Isolate yourself for 14 days and observe for symptoms.

4. If you are coughed or sneezed on directly, immediately go to another room. Gargle with plenty of normal saline or 0.05% iodophor. Dip a cotton swab into 75% alcohol, and wipe your nasal cavity gently in a circular motion. Isolate yourself for 14 days and observe for symptoms.

How to wear a mask (WHO Intl)

1. Before putting on a mask, clean hands with alcohol-based hand rub or soap and water.
2. Cover mouth and nose with mask and make sure there are no gaps between your face and the mask.
3. If you are using a surgical mask, the colored part should face the outside
4. Avoid touching the mask while using it; if you do, clean your hands with alcohol-based hand rub or soap and water.
5. Replace the mask with a new one as soon as it is damp and do not re-use single-use masks.
6. To remove the mask: remove it from behind (do not touch the front of mask); discard immediately in a closed bin; clean hands with alcohol-based hand rub or soap and water.

Diet.

1. The Covid-19 patient needs a nutritious high calorie diet to recover. Foods that boost immunity include citrus fruits, watermelon, berries, spinach, wheat germ, yoghurt, garlic, ginger and chicken soup.
2. However, they may get exhausted easily and struggle to finish the meal. They may be able to eat soups or soft foods.
3. Make sure they drink plenty of water. They will need at least 8-10 glasses of water every day. However, if they have heart or kidney disease or low sodium, please consult the physician on the correct amount of fluids to drink daily. One way to make sure is to ask them to check their urine. They should have a clear or pale-yellow urine and urinating 3-4 times a day. If not, they need to drink more water.

EXERCISE

This illness is highly debilitating. We don't yet know how long most patients will take to recover but we think it will take several months to recover fully.

- Please check with your physician before starting any exercises.
- These exercises are designed to be done alone by the patient in their room.
- The caregiver can provide remote instructions and supervision by telephone from another room
- Equipment required
 - Incentive spirometer: If this is not available a packet of balloons can be used as a substitute.
 - Light weights: If this is not available a water bottle can be used as a substitute
 - 12-inch Exercise ball: If this is not available a cushion or small pillow can be used as a substitute

Precautions

- a. **You can start gentle exercises if**
 - i. **You have had no fever for at least 7 days**
 - ii. **No shortness of breath, palpitations or chest pain while walking around in your house**
 - iii. **No swelling of the legs**
- b. **STOP immediately if you develop any of the following. Get help immediately**
 - i. **Shortness of breath**
 - ii. **Chest pain**
 - iii. **Palpitations**
 - iv. **Exhaustion**
 - v. **Dizziness or Lightheadedness**

Sequence of Exercise Progression

Level 1	<p>These exercises are suitable for patients who are very weak and have to lie down most of the time.</p> <ul style="list-style-type: none"> • Start with the breathing exercises (exercises 1-3) done at least twice a day, and increase to 4-6 times a day • Gradually add the other exercises as tolerated. You can do a few of the different exercises at each session • Once you can do all the exercises in one session without any difficulty, repeat them 2-3 times a day
Level 2	<p>Once the patient can complete level 1 exercises with ease, proceed to level 2 which are mainly seated exercises.</p> <ul style="list-style-type: none"> • Continue with level 1 exercises • Start with a few of the exercises in Level 2 • Gradually increase the number of exercises that can be done at each session • Increase to repeating the exercises 2-3 times a day.
Level 3	<p>Once the patient can complete level 2 exercises with ease, proceed to level 3 which are mainly standing exercises</p> <ul style="list-style-type: none"> • Continue with level 1 and 2 exercises • Start with a few of the exercises in Level 3 • Gradually increase the number of exercises that can be done at each session • Increase the numbers of sessions as tolerated. The goal is to do this 2-3 times a day.

LEVEL 1

Deep breathing exercises	2 minutes	Aerating the lower parts of the lung
Pursed lip breathing exercises	2 minutes	Exercising the breathing muscles
Blowing exercises	10 times	Exercising the breathing muscles
Ankle Pumps	Repeat 2-3 times. Increase gradually to 8 times (1 set)	Improve leg circulation. Prevent ankle contractures
Hip and Knee Bends	Repeat 2-3 times. Increase gradually to 8 times (1 set)	Maintain hip and knee range of motion
Crossing your legs in bed	Repeat 2-3 times. Increase gradually to 8 times(1 set)	Maintain hip external rotation
Overhead arm stretch	Repeat 2-3 times. Increase gradually to 8 times(1 set)	Maintain shoulder abduction and extension
Touching back of neck	Repeat 2-3 times. Increase gradually to 8 times(1 set)	Maintain shoulder external rotation
Touching upper back	Repeat 2-3 times. Increase gradually to 8 times(1 set)	Maintain shoulder internal rotation
Sitting side of the bed	As long as tolerated	Improve sitting balance. Reduce postural dizziness
Sit to Stand	10 times(1set)	Improve ability to get up
Relaxation		

1. Deep breathing exercises

1. Lie on your back in bed with a pillow under your head and knees.
2. Place one hand on your belly. Place the other hand on your chest.
3. Slowly breathe in through your nose. Let your belly fill with air, feeling your belly rise.
4. Breathe out through your nose. As you breathe out, feel your belly lower.
5. The hand on your belly should move more than the one that's on your chest.
6. Repeat for 2 minutes, several times a day

2. Pursed lip breathing exercises

1. Relax your neck and shoulder muscles.
2. Breathe in for two seconds through your nose, keeping your mouth closed as if you are smelling a rose
3. Breathe out for four seconds through pursed lips as if you are blowing out birthday candles. *If this is too long for you, simply breathe out twice as long as you breathe in.*
4. Repeat for 2 minutes

3. Blowing exercises.

1. If you were given an **incentive spirometer**, use it
 - a. Sit straight on a chair or the edge of your bed.
 - b. Breathe out completely to clear all the air from your lungs.
 - c. Close your lips firmly around the mouthpiece. You'll have to breathe in only through your mouth. Plug your nose if you need to.
 - d. Breathe in slowly, and make the piston/ball rise as high as you can. Then hold your breath up to 5 seconds.
 - e. Repeat 10 times
2. If you do not have an incentive spirometer, you could
 - a. get a packet of balloons, practice blowing them up
 - b. get a straw and imagine sucking up a thick milkshake and hold your breath up to 5 seconds.
 - c. Repeat 10 times

4. Ankle pumps

1. Lie down on the bed. Point your toes up to the ceiling, then point it straight down, so that your toes are parallel to the bed
2. Repeat 2-3 times.
3. Increase gradually to 8 times

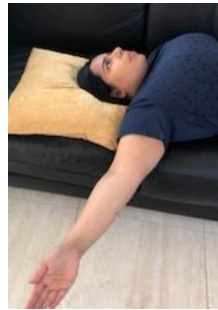
5. Hip and Knee bends in bed

1. Slide your feet up the bed so that your heels are almost touching your buttocks.
2. Return to the original position
3. Repeat 2-3 times.
4. Increase gradually to 8 times.

6. Crossing your legs in bed

1. Bend both knees
2. Place your right ankle on your left knee (as shown). Hold for 10 seconds.
3. Repeat on the other side

7. Overhead arm stretch



1. While lying in bed, bring both arms straight up to point to the ceiling. Now lower it so that it is pointing at the head of the bed. Bring it back to your side so that you are now forming a cross.
2. Repeat 2-3 times. Change sides and repeat
3. Increase gradually to 8 times

8. Touch the back of your neck



1. Bring both palms up and place them on the back of your neck.
2. Bring your arms back to your sides and repeat 2-3 times.
3. Increase gradually to 8 times

9. Touch your mid- back



1. Bring both arms up to touch your back (as if you are trying to hook a bra)
2. Repeat 2-3 times. Increase gradually to 8 times

10. Sit at the side of the bed,

1. Dangle your legs off the bed, and sit for as long as you can tolerate it.

11. Supported sit to stand

1. Sit at the edge of the bed. Place the back of a sturdy chair in front of you.
2. Stand up while leaning on to a support (E.g. back of chair or a table)
3. Repeat 2-3 times. Increase gradually to 8 times

12. Relaxation

1. Lie on the bed with a pillow under your head and your knees.
2. Imagine a peaceful setting.
3. Keeping this image in your mind, focus on controlled, relaxing breathing, slowing your heart rate, or feeling different physical sensations, such as relaxing each arm or leg one by one.
4. Your mind may wander during this exercise- if you notice your thoughts wandering, bring your attention back to your breath.
5. Continue for 10 minutes before getting up slowly from the bed

Level 2

Start with 1-2 repetitions, gradually increase to 8 repetitions. This is 1 set. Once you can easily complete all the exercises, increase the frequency to twice a day

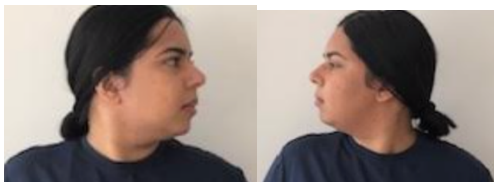
Deep breathing exercises	2 minutes	Aerating the lower parts of the lung
Pursed lip breathing exercises	2 minutes	Exercising the breathing muscles
Blowing exercises	10 times	Exercising the breathing muscles
Chin Up and Down	1-2 times, increasing to 8 reps	Neck range of motion. Vestibular exercises
Head Turns	1-2 times, increasing to 8 reps	Neck range of motion Vestibular exercises
Shoulder Rolls	8 times forwards, 8 times backwards	Shoulder range of motion
Finger Stretch	Hold for a count of 8	Wrist and finger stretch
Calf Stretch	Hold for a count of 8	Hamstring Stretches
Wrist Curls		Hand and wrist muscle strengthening
Biceps Curls	1-2 times, increasing to 8 reps	Forearm strengthening
Seated Overhead Extension	1-2 times, increasing to 8 reps	Shoulder muscle strengthening
Seated Shoulder Abductions	1-2 times, increasing to 8 reps	Shoulder muscle strengthening
Tummy Twists	1-2 times, increasing to 8 reps	Core strengthening
Seated Knee Lifts	Start 2-3 times. Increase to 8 times	Hip flexor stretches and strengthening
Seated Knee Extensions	Start 2-3 times. Increase to 8 times	Hamstring stretches Quad strengthening
Relaxation		

1. Chin Up & Down



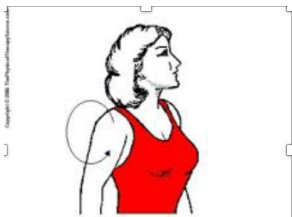
1. Sit up,
2. Slowly drop chin to chest, and then look up to the ceiling,
3. Start with 1-2 times, Increase gradually to 8 times

2. Head Turns



1. Look left over your left shoulder,
2. Look right over your right shoulder
3. Start with 1-2 times, Increase gradually to 8 times

3. Shoulder Rolls



1. Roll the shoulders forward 8 times
2. Roll the shoulders backwards 8 times

4. Finger stretch:



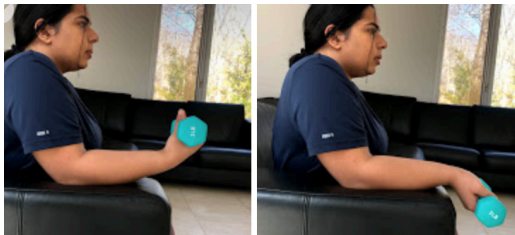
1. Stretch both your arms out in front of you ,
2. Keep your elbows straight.
3. With the right hand, stretch the fingers of your left hand backwards.
4. Count to 8, Repeat on the other side

5. Calf stretches in bed



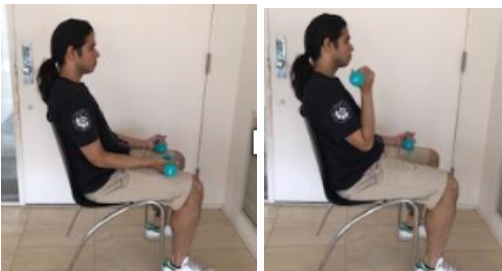
1. Sit up in bed.
2. Place a towel on the sole of your foot
3. Grab both ends of the towel and pull .You should feel the stretch in your calf
4. Count to 8. Repeat on the other side

6. Wrist curls with light weights



1. Place your forearm on a chair's armrest with your hand hanging over the edge.
2. Hold a light weight (2-5lb) Slowly bend your wrist up and down, then repeat 2-3 times and increase gradually to 8 reps.
3. Repeat on the other side

7. Biceps Curls



4. Place your forearm on a chair's armrest
5. Hold a light weight (2-5lb)
6. Keep your elbow on the armrest and Bring the weight up to your chin, slowly lower your arm to return to the starting point repeat 2-3 times and increase gradually to 8 reps.
7. Repeat on the other side

8. Seated Overhead weights



1. Sit on the chair and hold the ball or a cushion at chest level
2. Move ball up overhead and return to start position
3. Repeat 8 times

9. Tummy twists



1. Begin seated position, holding the ball/cushion in both hands
2. Slowly twist to the right, return to the center then twist to left
3. Repeat 8 times

10. Shoulder Abductions



1. Sit with elbow at the side, while holding light weights
2. Slowly raise both arms while keeping the elbows bent at 90 degrees
3. Slowly lower both arms to return to starting price

11. Seated knee lift

1. Sit on the chair
2. Lift the right leg and hold it up for count of 8
3. Change legs.
4. Repeat each leg 3 times

12. Knee Extensions:

1. Begin seated in a chair with your back straight and knees bent.
2. Slowly extend your right leg forward and hold for a few seconds before lowering back to starting position.
3. Repeat with your left leg. Do 8 reps per leg

13. Relaxation

- a. Lie on the bed with a pillow under your head and your knees.
- b. Now imagine a peaceful setting
- c. Keeping this image in your mind, focus on controlled, relaxing breathing, slowing your heart rate, or feeling different physical sensations, such as relaxing each arm or leg one by one.
- d. Your mind may wander during this exercise- if you notice your thoughts wandering, bring your attention back to your breath.
- e. Continue for 10 minutes before getting up slowly from the bed

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Level 3

Deep breathing exercises	2 minutes	Aerating the lower parts of the lung
Pursed lip breathing exercises	2 minutes	Exercising the breathing muscles
Blowing exercises	10 times	Exercising the breathing muscles
Overhead stretch	Count of 8	Full body stretch
Side Stretch	Count of 8, Rpt 2-4 times	Full body stretch
Triceps stretch	Hold 15-30 s. Rpt 2-4 times	Arm stretch
Quadriceps stretch	Hold 15-30 s. Rpt 2-4 times	Thigh muscle stretch
Groin Stretch	Hold 15-30 s. Rpt 2-4 times	Hip muscle stretches
Calf Stretch	Hold 15-30 s. Rpt 2-4 times	Hamstring stretch
Standing shoulder flexion	Start 2-3 times and increase to 8 times	Shoulder stretch
Standing shoulder abduction	Start 2-3 times and increase to 8 times	Shoulder stretch
Upright front row	Repeat 8 times	Shoulder strengthening exercise
Biceps curls	Repeat 2-3 times on each side and increase gradually to 8 reps.	Arm strengthening exercise
Core exercises	Start with 1-2 reps and slowly increase to 8 reps	Core strengthening exercise
Leg abduction	Hold for count of 8 Start with 2-3 reps and increase to 8 reps	Hip strengthening exercise
Hamstring curls	Hold for count of 8 Start with 2-3 reps and increase to 8 reps	Leg strengthening exercise
Supported lateral lunge	Hold for count of 8 Start with 2-3 reps and increase to 8 reps	Leg strengthening exercise
Supported squats	Hold for count of 8 Start with 2-3 reps and increase to 8 reps	Leg strengthening exercise
Wall push ups	Hold for count of 8 Start with 2-3 reps and increase to 8 reps	Chest strengthening exercise
Walking	10 minutes Increase to 3 times a day	Cardiovascular fitness
Relaxation	10 minutes	

1. Overhead Stretch



- a. Start off by standing up straight with your hands at your sides and feet shoulder width apart.
- b. Lace your fingers together and raise your hands up towards the ceiling with your palms facing up.
- c. Fully stretch your torso and hold for a count of 8, then return back to the starting position.

2. Side Stretch



- a. Stand with your back straight and your feet shoulder-width apart. You can do this stretch sitting down if you are not steady on your feet.
- b. Hold your arms above your head, and hold one hand with the other.
- c. Pull upward while leaning straight over toward your right side. Keep your lower body straight. You should feel the stretch along your left side.

3. Triceps stretch.



1. Stand with your back straight and your feet shoulder-width apart.
2. Bring your left elbow straight up while bending your arm.
3. Grab your left elbow with your right hand, and pull your left elbow toward your head with light pressure.
4. Hold 15 to 30 seconds, and then switch elbows.
5. Repeat 2 to 4 times for each arm.

4. Quadriceps stretch



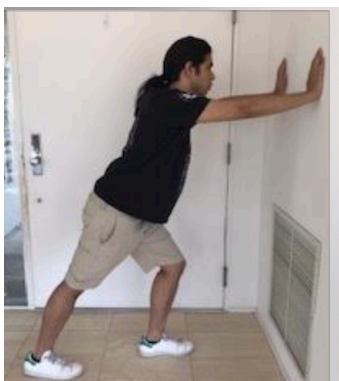
1. Lie on your side with one hand supporting your head.
2. Bend your upper leg back and grab your ankle with your other hand.
3. Stretch your leg back by pulling your foot toward your buttocks. You will feel the stretch in the front of your thigh. If this causes stress on your knees, do not do this stretch.
4. Hold the stretch 15 to 30 seconds.
5. Repeat 2 to 4 times for each leg

5. Groin stretch



1. Sit on the floor and put the soles of your feet together. Do not slump your back.
2. Grab your ankles and gently pull your legs toward you.
3. Press your knees toward the floor. You will feel the stretch in your inner thighs.
4. Hold 15 to 30 seconds.
5. Repeat 2 to 4 times.

6. Calf stretch



1. Place your hands on a wall for balance.
2. Step back with your left leg, keeping the knee straight and pressing the heel into the floor.
3. Press your hips forward, bending your right leg slightly. You will feel the stretch in your left calf.
4. Hold the stretch 15 to 30 seconds.
5. Repeat 2 to 4 times for each leg.

7. Standing Shoulder flexion



1. Stand while holding light weights in both hands
2. Lift arms slowly up ,while keeping elbows straight as shown
3. Slowly bring arms down to return to starting position
4. Start 2-3 times and increase to 8 times

8. Standing arm abduction



1. Stand while holding light weights in both hands
2. Lift arms slowly up ,while keeping elbows bent as shown
3. Slowly bring arms down to return to starting position
4. Start 2-3 times and increase to 8 times

9. Upright Front Row



1. Begin standing with your feet shoulder-width apart, knees slightly bent, and partially leaning forward.
2. Hold one dumbbell in each hand in front of you, with palms facing toward your body.
3. Lift both dumbbells toward your chin while keeping your back straight and shoulders stationary.
4. Return to starting position and repeat 8 times.

10. Biceps curls

1. Place your forearm on a chair's armrest
2. Hold a light weight (2-5lb)
3. Keep your elbow on the armrest and bring the weight up to your chin
4. Slowly lower your arm to return to the starting point
5. Repeat 2-3 times and increase gradually to 8 reps.
6. Repeat on the other side

11. Core exercises

1. Sit upright nearer the edge of the chair with elbows crossed as shown above
2. Keeping the elbow crossed, slowly lean backwards
3. Come back to the upright position
4. Straighten both arms and stand up without using arms
5. Sit down again to return to the starting position
6. Start with 1-2 reps and slowly increase to 8 reps

12. Leg abduction

1. Stand facing the back of the chair
2. Hold on to the back of the chair
3. Slowly lift one leg as shown
4. Hold for count of 8
5. Slowly lower the leg to return to the original position
6. Change legs and repeat
7. Start with 2-3 reps and increase to 8 reps on each leg

13. Hamstring curls

1. Stand with feet slightly apart.
2. The knee of your support leg should be slightly bent.
3. Slowly bend the other knee, bringing your heel toward your buttocks.
4. Hold for count of 8 and return to start position.
5. Repeat using other leg.
6. Start with 2-3 reps and increase to 8 reps on each leg

14. Supported lateral lunge

1. Stand facing the back of the chair
2. Hold on to the back of the chair
3. Slowly lift one leg as shown
4. Hold for count of 8
5. Slowly lower the leg to return to the original position
6. Change legs and repeat
7. Start with 2-3 reps and increase to 8 reps on each leg

15. Supported squats

1. Stand facing the back of the chair
2. Hold on to the back of the chair
3. Slowly bend both knees to do half-squat
4. Hold for a count of 8
5. Slowly return to the original position
6. Start with 2-3 reps and increase to 8 reps on each leg

16. Wall push ups

1. Stand facing the wall and place both hands on the wall
2. Lean forward, keeping both knees straight.
3. Hold for a count of 8
4. Slowly return to the original position
5. Start with 2-3 reps and increase to 8 reps on each leg

17. Walking

1. Walk for ten minutes at a comfortable pace.
2. Gradually increase to 3 times a day

Relaxation

1. Lie on the bed with a pillow under your head and your knees.
2. Now imagine a peaceful setting
3. Keeping this image in your mind, focus on controlled, relaxing breathing, slowing your heart rate, or feeling different physical sensations, such as relaxing each arm or leg one by one.
4. Your mind may wander during this exercise. If you notice your thoughts wandering, bring your attention back to your breath.
5. Continue for 10 minutes before getting up slowly from the bed

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