



Physical and Occupational Therapy Guidelines for Your Recovery From COVID-19/Acute Respiratory Distress

For: _____

Rehabilitation Services: 617-219-1662



NEWTON-WELLESLEY
HOSPITAL



FOUNDED BY BRIGHAM AND WOMEN'S HOSPITAL
AND MASSACHUSETTS GENERAL HOSPITAL



Newton-Wellesley Hospital Department of Rehabilitation Services Key Points

1. Recovering from a diagnosis of COVID-19 and/or acute respiratory distress will be slow and your ability to return to everyday tasks will be gradual.
2. Take frequent rest breaks even if you do not feel short of breath.
3. Lying on your front/stomach (proning) may allow you to breath more easily/expand your lungs.
4. Energy conservation is important.
5. Plan your day to allow PACING of activities over the day.
6. Gradually increase daily conditioning exercises and a walking program.
7. Use the Rate of Exertion scale to help guide how hard you are working. Initial goal is to work in the 0-3 range. Keep taking short rest breaks.

RPE Scale (Rate of Perceived Exertion)	
1	Very Light Activity (anything other than complete rest)
2-3	Light Activity (feels like you can maintain for hours, easy to breath and carry on a conversation)
4-5	Moderate Activity (feels like you can exercise for long periods of time, able to talk and hold short conversations)
6-7	Vigorous Activity (on the verge of becoming uncomfortable, short of breath, can speak a sentence)
8-9	Very Hard Activity (difficult to maintain exercise intensity, hard to speak more than a single word)
10	Max Effort (feels impossible to continue, completely out of breath, unable to talk)

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Recovering from a diagnosis of COVID-19 and/or acute respiratory distress will be slow, and your ability to return to everyday tasks will be gradual.

This is normal, and this educational packet is designed to provide you with some helpful energy conservation tips, along with positioning guidelines and a gentle introduction to breathing exercises that will assist with improving your ventilation and lung capacity after this type of respiratory illness. It will also include some mobility guidelines to be aware of to maximize your safety, especially as most will feel as though they are in a weakened state from prolonged bedrest.



Breathing

After this type of illness, many daily tasks such as walking, climbing stairs and performing personal hygiene can often leave you feeling short of breath.

It is important to take rest breaks frequently even if you do not feel short of breath. You should breathe at a pace and depth that is comfortable for you.

If you feel comfortable, you can try some relaxation breathing.

Relaxation breathing technique:

1. Relax you neck and shoulder muscles.



2. Take a deep breath in through your nose and try and hold it in for a few seconds to expand your lungs



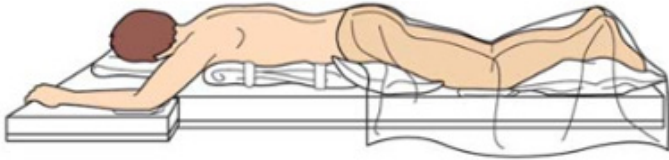
3. Breath out slowly through a puckered or "pursed" lip as if you were going to whistle.

It is important to remember to take rest breaks frequently. Don't wait to be short of breath – plan ahead to rest.

Positioning

There are ways to position your body to help with decreasing the work needed to breathe and help with ventilation.

Lying on your front can allow your lungs to have improved ventilation and oxygenation.



Prone position

Gently and slowly roll yourself from your back onto your side. Take a few minutes to rest as you may feel breathless with this movement.

When you are ready, slowly transition onto your stomach. A pillow under your head, belly and lower legs can improve comfort. Turn your head to the side.

What other positions should I use when I am short of breath?

- You can try sitting and leaning forward, resting your hands on your knees.
- Sit upright resting against the back of your chair. Rest your arms on your lap or armrests.



- Lie on your side, with a few pillows under your head and shoulders. The hips and knees can be slightly bent.
- Stand and lean forward on a countertop or a sturdy piece of furniture.
- The action of resting your arms on your lap or on a surface allows you to lift and expand your chest to get more air in.

When you start mobilizing, it is important to not wait until you are short of breath to take a rest break.

Energy Conservation Techniques

Recovery after COVID-19/acute respiratory distress can leave you short of breath and tired doing daily tasks such as getting dressed or doing jobs around the house. Energy conservation means finding the easiest way to do an everyday task, so you have some energy left over to do the other things you would like to do.

How do I conserve energy?

- Plan your activities for the day.
- Pace yourself. Do not expect to shower, cook and clean back to back.
- You will often need rest breaks during and between tasks to give your body a chance to recover.
- Use breathing exercises.
- Sit during tasks and activities.
- Minimize arm movements.
- Avoid movements that involve bending, reaching and twisting.

Below are tips to conserve energy doing most daily tasks.

Toileting

- Ask for assistance if help is available to you.
- Make sure your toilet paper is within reach.

- Wear clothing with a loose elastic waist to make it easier to pull up/down pants.
- Some men may prefer to sit versus stand while urinating to allow a rest break.
- A bedside commode or a urinal can be used until you have the stamina to walk to the bathroom, with someone available to assisting with emptying once used.

Bathing

- Ask for assistance if help is available to you.
- Sponge-bathing may be the best option for the short term or if you lack support at home.
- Organize your bathing products so they are within your reach.
- A shower chair can be useful, so you are seated for most of the shower. If that is not an option, try to shorten the time spent in the shower.



- Keep a relaxed pace – avoid vigorous scrubbing, gently washing one body part at a time.
- A handheld shower will allow for less reaching/twisting movements, which may increase your energy.
- Combo shampoo and conditioner to reduce time spent in the shower may also be helpful.
- Turn on the cold water before the hot water in order to reduce any steam produced. This will decrease shortness of breath and energy use.
- Use a terrycloth bathrobe to dry off, to avoid the need to rub yourself dry.

Dressing

- Ask for assistance if help is available to you.
- Lay out all your clothing before you start dressing. This may be taxing alone, so rest in between as needed. Look for easy options like stretchy clothes or a house coat.
- Allow time to dress at a relaxed pace.
- Dress the lower body first because it uses the most energy.
- Avoid bending as it restricts your diaphragm, making it more difficult to breathe. Bring feet up to you or use any recommended adaptive equipment such as a reacher/grabber or a sock aid.
- Remember to use your pursed lip breathing techniques and exhale when you move, such as lifting your leg or pushing your arm through your sleeve.

Grooming/hygiene

- Take breaks during your hygiene routine.
- Organize frequently used items close to your sink/table.
- Sit in a chair/stool or lean forward supporting yourself on your elbows on the sink or table if possible.
- Let your hair air dry versus using a hair dryer.
- Use an electric razor/toothbrush to minimize time spent and excessive arm movements.

Meal prep/clean-up

- Ask for assistance if help is available to you.
- Keep meals simple and consider meals that can be prepared in one container to reduce dishwashing.
- Use precut or prepared foods such as baby carrots, prewashed/cut lettuce or frozen vegetables.
- Assemble all your ingredients, utensils and pots in one area before starting.
- Keep 1-2 pots on the countertop or stovetop to avoid excessive reaching.
- Slide items over the counter versus lifting them.
- Cook portions that will last several meals. Freeze and use a microwave if available to reheat.
- Load items on the top self of your dishwasher to avoid excessive bending.
- Leave pots/dishes to soak to minimize the need to scrub clean.

- Let the pots/dishes air dry instead of drying them off with a tea towel.
- Many grocery stores offer a food delivery service, but you can also contact your local town health department or council on aging, as they may have a list of local volunteers who are willing to assist with dropping off groceries at your door.
- Bring heavier items from a bag one-at-a-time and try to put away perishables first. Take a rest break during this activity.

Nutrition and hydration

It is important to maintain good nutrition and hydration during your illness and recovery. Your body is requiring more calories to breathe and do the physical work of recovery, so make sure you are eating and drinking regularly, even if you have a low appetite.

- Eat a variety of healthy foods – a balanced diet including fruit and vegetables, carbohydrates



such as bread/pasta or a potato and a source of protein such as chicken, fish or tofu.

- Often, if you feel thirsty it is already a sign that your body is becoming dehydrated. Other symptoms of dehydration can include dizziness/lightheadedness, headaches or a dry and sticky mouth.
- It is recommended that adults drink 8 glasses of water a day. Flavored water (no sugar added) can be a suitable alternative.
- Alcoholic, sugary drinks such as soda or juices should be avoided as these can increase dehydration.
- The elderly is especially vulnerable to dehydration as fear of incontinence or the effort to get to a bathroom causes them to self-restrict fluid intake. Make planned bathroom breaks even if you don't feel the urge to go, to help minimize this fear.
- It is important to check with your physician to see if you have any fluid restrictions and follow those guidelines closely. But, if you have no restrictions, make sure you are getting your daily recommended intake.

How do I regain my activity level?

During your hospitalization, you will likely be moving around less than normal. This may leave you feeling weak and more unsteady on your feet. This is normal due to loss of muscle that occurs with prolonged bed rest or sitting. It is important to start to rebuild those muscles as soon as possible and become more active as this will help you recover both physically and mentally.

- Pace yourself – your return to activity will be gradual. Use your energy conservation techniques and try to do a little more each day.
- Start with light activity – examples include getting up to go to the bathroom versus a bedside commode, walking to make a cup of tea/coffee or even just standing up from a seated position.



- **You may have seen a physical or an occupational therapist during your hospitalization. They will have evaluated your mobility and may have recommended the use of an assistive device to use when walking such as a walker or a cane. It is important to use this equipment if recommended, as it will help your safety as you start to move around in the days and weeks after your illness.**
- Keep a walking log to track the number or times and estimated distance you are able to walk each day.
- Start with a bed level and a seated exercise program 2-3 times a day – please see attached copy of a bed-level and seated exercise program. **Remember, do what your body can tolerate. Take frequent rest breaks as needed.**
- If your balance is not impaired or you have someone who can safely guard you, you can start some standing exercises – see attached copy of a standing exercise program.

Bed-level exercises

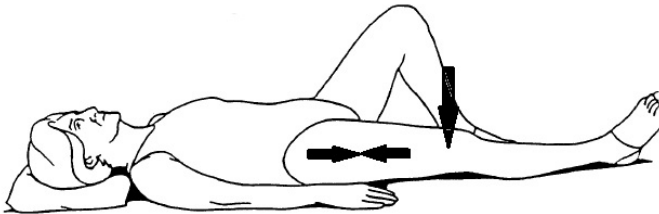
Ankle Pumps

Bend ankles to move feet up and down, alternating feet. **Repeat 1-10 times. Do this 2-3 times a day.**



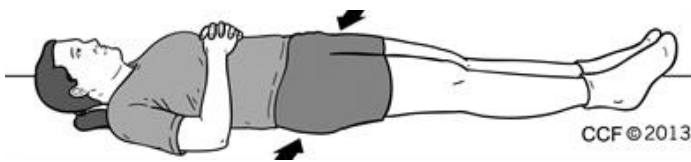
Quad Sets

Slowly tighten the muscles on the front of the thigh while your leg is straight. Hold for 3 seconds and then relax. **Repeat with the other leg. Repeat 1-10 times. Do this 2-3 times a day.**



Glut Squeeze

Slowly tighten the buttock muscles. Hold for 3 seconds and then relax. Repeat with the other leg. **Repeat 1-10 times. Do this 2-3 times a day.**



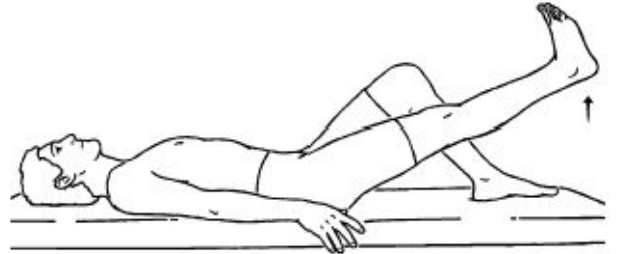
Heel Slide

Gently bring one knee up as far as possible, keeping the foot on the bed. Return. Repeat with the other leg. **Repeat 1-10 times. Do this 2-3 times a day.**



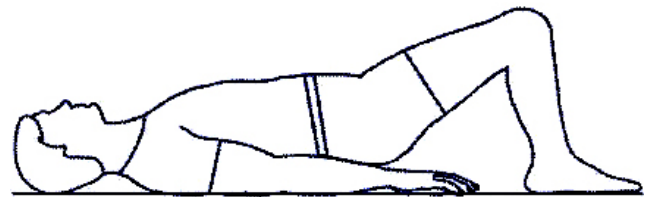
Straight Leg Raise

Slowly tighten the muscles on the front of one thigh, then lift the leg about 6 inches from the bed keeping your knee straight. Then lower the leg. Repeat with the other leg. **Repeat 1-10 times. Do this 2-3 times a day.**



Bridging

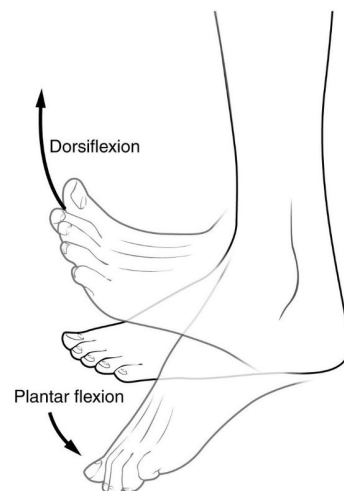
Lie on your back with your knees bent and feet shoulder width apart. Lift hips toward the ceiling. Hold for 3 seconds. **Do this 1-10 times. Do this 2-3 times a day.**



Seated exercises

Ankle Dorsiflexion/Plantarflexion

Sitting down, point toes up, keeping both heels on the floor. Then press toes to the floor, raising your heels. **Repeat 1-10 times. Do 2-3 times a day.**



Sitting Knee Extension

Sitting down, straighten one leg and try to hold for 3 seconds. Slowly lower you leg back down. Repeat with your other leg. You can add ankle weights if this is too easy. **Repeat 1-10 times. Do 2-3 times a day.**



Sitting Hip Marching

Slowly tighten the muscles on the front of the thigh while your leg is straight. Hold for 3 seconds and then relax. **Repeat with the other leg. Repeat 1-10 times. Do this 2-3 times a day.**



Sitting Neck Range of Motion

Seated in a chair, gently tilt your head sideways. Then bring your head up right, and then tilt to the other side. You can also work on gently turning your head side to side. If you are experiencing any discomfort or pain, **stop** the exercise. **Do 1-10 times, 2-3 times a day.**

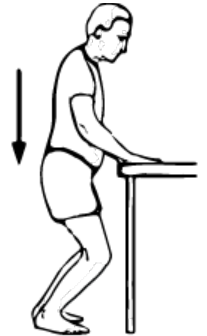


Standing exercises

If your balance is not impaired or you have someone who can safely guard you, you can start trying standing exercises.

Knee Bend

Hold the back of a sturdy chair or a countertop. Slowly bend knees. Keep both feet on the floor. Bend down a short distance, and then straighten knees to stand straight up. **Repeat 1-10 times. Do 2-3 times a day.**



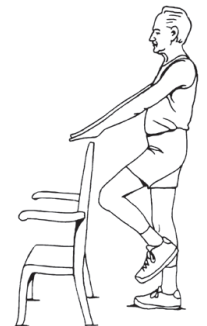
Toe Raises

Hold the back of a sturdy chair or a countertop, rise up on you toes. Hold for 3 seconds. Then come down. **Repeat 1-10 times. Do 2-3 times a day.**



Marching

Holding onto a countertop, lift one heel towards you buttock. Hold for 3 seconds. Repeat using the other leg. **Repeat 1-10 times. Do 2-3 times a day.**



Hamstring Curl

Holding onto a countertop, lift one heel towards you buttock. Hold for 3 seconds. Repeat using the other leg. **Repeat 1-10 times. Do 2-3 times a day.**



Hip Extension

Holding onto a countertop, bring leg back as far as possible. Repeat with other leg. Repeat 1-10 times. Do 2-3 times a day.



Hip Abduction

Holding onto a countertop, list leg out to the side, and then slowly bring your leg back to midline. Repeat with the other leg. Repeat 1-10 times. Do 2-3 times a day.



Can I use relaxation/meditation techniques?

Yes! When you are breathless, it can lead to feelings of panic and being frightened. Relaxation and meditation techniques can be helpful in managing these feelings. Below are links to useful apps and websites:

www.calm.com –also available in app format

Apps:

- Insight Timer Meditation/Relaxation
- Mindfulness Meditation

Oxygen line management

People who use oxygen at home have an increased risk of falling due to tripping over their tubing. To prevent falls, keep the tube of your oxygen supply away from your feet and furniture.

If you are using a walker or a cane, loop the tubing around a finger. This will help keep the tubing away from your feet, and you will be more aware of it as you go about your home activities.

If you are not using a device for assistance walking, hold the tubing in your non-dominant hand.

When turning to sit, move the tube from your side to directly in front of you. This way you will see the tube as you turn, and it won't get tangled on anything.

Medical Equipment

Durable medical equipment that can be purchased on Amazon:



commode



shower chair



shower chair for tub transfers



hand-held shower



finger pulse oximeters can help you monitor your oxygen use during exercise or other activities at home.

EXERCISE LOG (can be copied for your continued use)

Track your progress – circle the day of the week.

DAY: Sun Mon Tue Wed Thu Fri Sat

Exercise	# of Reps	# of Sets	Rest time	Perceived Exertion
BED-LEVEL EXERCISES				
Ankle Pumps				
Quad Sets				
Glut Squeeze				
Heel Slide				
Straight Leg Raise				
Bridging				
SITTING EXERCISES				
Ankle Pumps				
Knee Extension				
Hip Marching				
Neck Motion				
STANDING EXERCISES				
Knee Bends				
Toe Raises				
Marching				
Hamstring Curl				
Hip Extension				
Hip Abduction				

RPE Scale (Rate of Perceived Exertion)	
1	Very Light Activity (anything other than complete rest)
2-3	Light Activity (feels like you can maintain for hours, easy to breath and carry on a conversation)
4-5	Moderate Activity (feels like you can exercise for long periods of time, able to talk and hold short conversations)
6-7	Vigorous Activity (on the verge of becoming uncomfortable, short of breath, can speak a sentence)
8-9	Very Hard Activity (difficult to maintain exercise intensity, hard to speak more than a single word)
10	Max Effort (feels impossible to continue, completely out of breath, unable to talk)

You want to keep your rate of perceived exertion in the 1 to 3 range during your recovery. If you are rating the activity in the higher ranges, it means your body is not ready for that activity. Take planned rests throughout the activity and day.

WALKING LOG (can be copied for your continued use)
 Track your progress – circle the day of the week.

DAY: Sun Mon Tue Wed Thu Fri Sat

Walk Number	Surface (indoors/outdoors)	Length (time or distance)	Rest Time	Perceived exertion (scale 1-10)	How you felt
1					
2					
3					

DAY: Sun Mon Tue Wed Thu Fri Sat

Walk Number	Surface (indoors/outdoors)	Length (time or distance)	Rest Time	Perceived exertion (scale 1-10)	How you felt
1					
2					
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