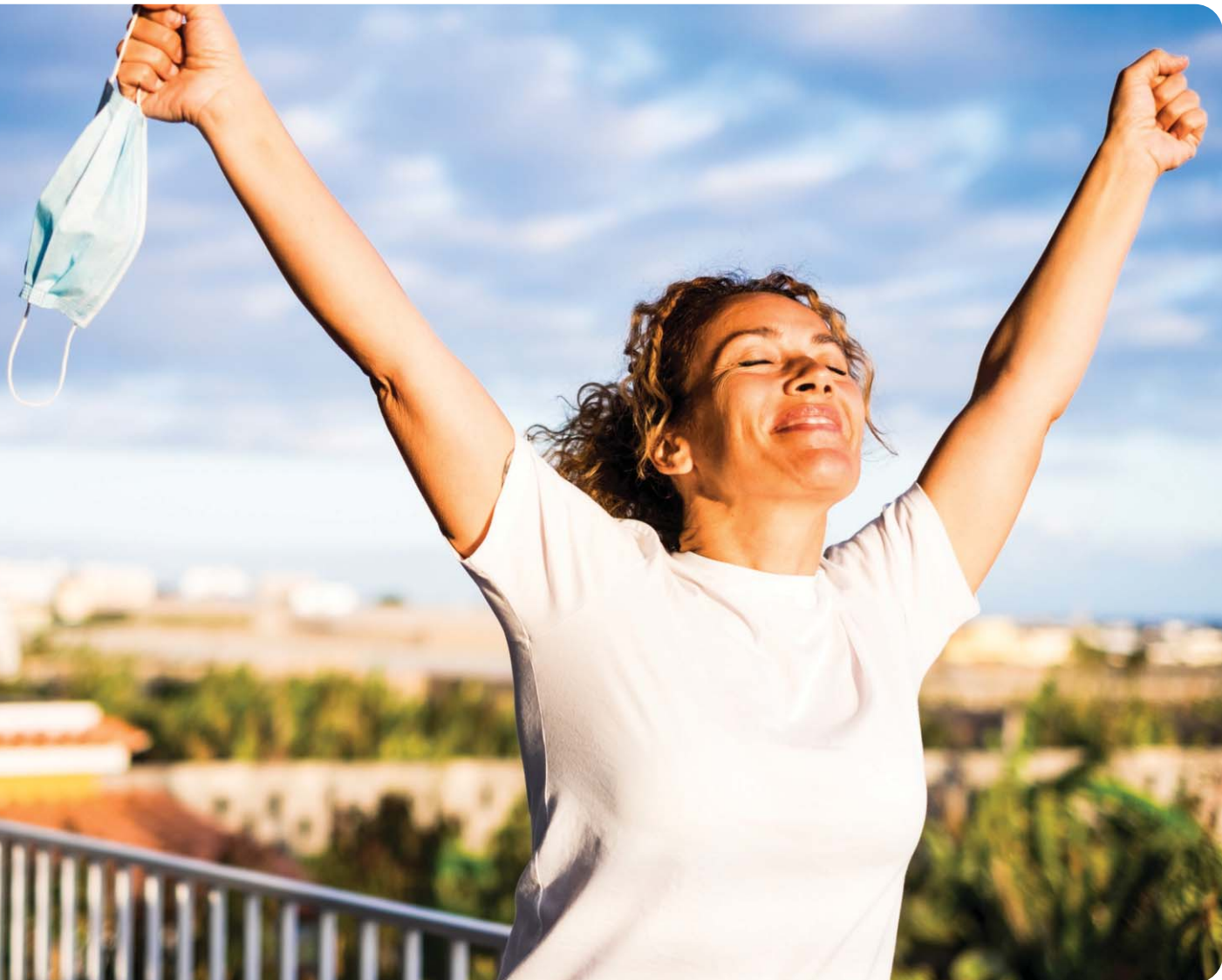




MedStar Health

Recovering from **COVID-19.**

A patient's guide to functional recovery after COVID-19.



MedStar National Rehabilitation Hospital
MedStar Health Physical Therapy

It's how we treat people.

Understanding the effects of COVID-19.

Research continues to emerge about COVID-19 and some of the more long-term impacts of the virus on the body. These include chronic fatigue, loss of strength, orthopaedic issues, and even some neurologic challenges.

Since recovering from your initial infection or discharge from the hospital, you may still be experiencing some of the following symptoms:

- Shortness of breath, fatigue, or difficulty completing basic daily routines (i.e., getting ready in the morning, going about your workday, taking the stairs, walking around your neighborhood)
- Inability to return to regular exercise routines
- Challenges with concentration, focus, or memory
- Changes in balance or frequent dizziness
- New joint pains or muscle weaknesses from extended periods of time in bed or inactivity

This booklet is designed to guide you on your road to COVID-19 recovery with exercises, activities, and education. For a more individualized program, schedule an appointment with an experienced MedStar Health physical therapist by calling **844-91-GETPT** (844-914-3878).

COVID-19 recovery home exercise program.

Four components of your recovery are:



Breathe right



Gain endurance



Improve strength



Balance rest and activity

PRECAUTIONS: Do not exercise and consult your physician if you have any of the following:

- Chest pain, heart palpitations, or irregular heartbeat
- Cool or clammy skin
- Dizziness
- Excessive fatigue
- Fever
- Shortness of breath while you are resting, or more than normal with activity

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Breathe right.

Deep breathing is important to help restore lung function, promote relaxation, and manage stress, all vital parts of your recovery. The diaphragm is a dome-shaped muscle located under your lungs, which normally assists with breathing. With lung disease or lung compromise, the neck and chest muscles can assume too much of the work of breathing. This limits our natural tendency to use the diaphragm when breathing.

Diaphragmatic breathing

The purpose of learning and practicing diaphragmatic breathing is to strengthen the diaphragm and create less effort and energy to breathe.

1. Sit or lie on your back, so you feel at ease.
2. Place one hand on your chest, the other on your stomach.
3. Inhale slowly through your nose to a count of two. As you inhale, your stomach should rise, and your chest should remain still.
4. Breathe out through your mouth to a count of four. Your stomach should fall.

GOAL: Exhale at least two times slower than you inhale. Start with one minute, work up to five or more minutes.

Pursed lip breathing

Pursed lip breathing can help lessen shortness of breath without using much energy. It helps you to exhale better.

It is important to practice this technique first at rest, then with activity, so that you can use it with your daily activities to help with your shortness of breath.

1. Relax your neck and shoulder muscles.
2. Inhale slowly through your nose for count of two.
3. Pucker your lips as if you were blowing on a spoonful of hot soup.
4. Exhale slowly and gently for a count of four. You should not blow hard!

GOAL: Exhale at least two times slower than your inhale. First practice at rest, then try and use this type of breathing with activities that cause shortness of breath.

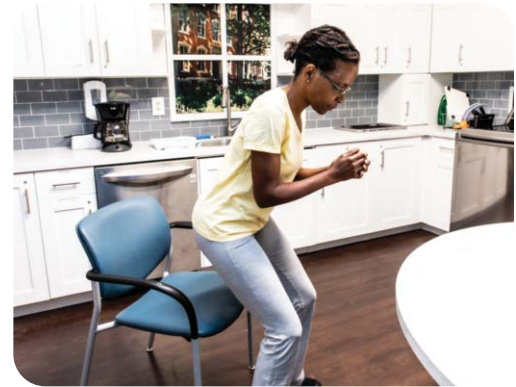


Improve strength.

Remember to breathe with proper technique during exercises. For all, start with one set of eight to 12 repetitions, as able, with a goal of two-three sets. These should not be painful.

Sit to stand

1. Begin seated on the edge of a sturdy chair with your feet hip-width apart. Lean forward and press your heels into the floor.
2. Slowly rise to standing while maintaining weight in heels without using your arms. Pause in standing position to ensure you are balanced.
3. Step back until you feel the chair behind your legs.
4. Slowly bend your knees while maintaining weight in your heels until you are seated once again.



Kicks

1. Begin seated on the edge of a sturdy chair with your feet on the ground.
2. Slowly kick out one leg until your knee is straight. Hold for three to five seconds.
3. Lower leg to starting position. Complete eight to 12 repetitions on one leg before switching to other leg.



Bicep curls with overhead press

1. Begin standing up straight, feet hip width apart. Hold a single light weight (small water bottle, can of beans, dumbbell 5 pounds or less) in both hands with elbows straight.
2. Slowly bend elbows until weight is at shoulder height. Push weight up, lifting elbows away from your chest until weight is raised overhead and elbows are straight.
3. Bending elbows, lower weight to shoulder height. Slowly extend elbows until weight is at starting position.



Gain endurance.

COVID-19 often affects your lungs. Many people have decreased endurance and tolerance for their daily activities as a result. In order to improve your endurance, you will need to gradually work up the amount of time you can sustain an activity.

Some general guidelines are:

- If you have a pulse oximeter, your oxygen saturation should stay above 90%.
- While you are working on endurance, the amount of exertion and effort you are giving should not be more than "somewhat hard."
- Start with intervals of exercise, with rest breaks in between activities. Count your time of exercise (not rest breaks) towards your total exercise time. Your eventual goal would be 20 to 30 minutes of endurance exercise, four to six days a week.
- Examples include walking, stationary bike, sustained activities of daily living, light gardening, and light housecleaning.

Examples of indoor endurance exercises:

Marching in place

1. Begin standing next to a sturdy counter or table. Bend one knee and lift your foot off the ground. Bring your knee up as high as you can (use the counter for balance if needed).
2. Lower that leg and repeat with other leg.
3. Continue alternating between legs for 30 seconds. Rest for 30 seconds.
4. Repeat five times. If you are unable to complete five repetitions, do as many as you can and slowly work up to five sets.
5. When this becomes easy, increase marching time to 45 seconds and decrease rest time to 15 seconds. Work your way up to marching for longer periods without rest breaks.



Overhead reaches

1. Begin standing at your kitchen counter in front of a cabinet. Pick up an item from the cabinet (you can use a can or plate). Lower it to the counter and set it down.
2. Choose another item from the cabinet and move it to the counter. Repeat with five items.
3. After you have lowered the five items to the counter, lift them back to the shelf one at a time. Repeat until all items are back in the cabinet.
4. Continue lowering and lifting items back and forth for three minutes. Take a seated rest break if necessary, before repeating two more times.
5. When this becomes too easy, try lifting heavier objects. If this is too difficult, try it for a shorter time or stay seated at a table and move cans from one side to the other.



Laundry lifts

1. Begin standing up straight, feet hip width apart with an empty laundry basket in your hands at waist height.
2. Slowly squat down and lower the basket to the floor. Make sure to keep your knees behind your toes as you squat.
3. Keeping your weight in your heels, stand up with the basket in your hands.
4. Continue slowly squatting and standing for 30 seconds. Take a 30 second rest break.
5. Repeat three times.
6. When this becomes too easy, add some laundry to the basket or lift a bottle of laundry detergent. If this is too difficult, squat halfway to a chair and then stand back up without sitting down to build your endurance.



Balance rest and activity.

Energy conservation is defined as finding the easiest way to avoid fatigue and pain by finding a good balance between work and rest. Whether we are dealing with pain, stress, or fatigue, it is important that we acknowledge that each of us has only 'so much fuel in the tank' or 'money in the bank.' If we do not make proper choices, we usually end up feeling frustrated, burned out, and guilty that we cannot do all we wish for our workmates and family.

Plan

- Take inventory of the tasks that need to be completed for the day or week; look at how they are scheduled to see about when you can structure in time to rest or recharge or space out more challenging tasks.
- When completing a task, make sure all the items you will need are in the same spot to avoid frequent trips or movements (i.e., all groceries grouped for entire meals, clothes put away by outfits, all work items placed in one spot).

Pace

- Keep in mind the need for physical, emotional, and cognitive rest breaks knowing that all will contribute to productivity and effectiveness.
- Organize the days to distribute those more strenuous tasks and allow for balance—work smarter, not harder.
- Frequent short breaks tend to be better than infrequent long breaks.

Prioritize

- Eliminate or reduce tasks that are not necessary for that day or timeframe.
- Delegate tasks to friends and family if able and safe.
- Take inventory of the day and assess what is most time sensitive.
- Make sure to prioritize rest breaks.

Position

- Body mechanics are key to success and ensuring we use our energy efficiently (push, pull, or slide objects rather than lifting; be mindful of your back when carrying objects).
- What activities can you do while sitting? Sitting can save up to 25% of your energy. Sit rather than stand whenever possible, such as while preparing meals, washing dishes, or ironing.
- Make sure to examine your workspace or household environments to ensure that things are set up to optimize ergonomics and body positioning.

How can therapy help?

If you feel you are not improving at the rate you would like, you may benefit from physical, occupational, or speech therapies. Therapy can help with the following:

- **Improve your endurance** for activities of daily living, return to prior level of function and/or exercise, decrease the need for oxygen as indicated through individualized exercise prescription and patient education
- **Improve your strength** through therapeutic exercise and functional activities and training
- **Decrease your pain** through manual therapy, modalities, and education
- **Improve your posture** through manual therapy, exercise, and education
- **Improve your breathing** pattern through training and education
- **Improve your balance** through individualized balance program
- **Assess for equipment needs**, including bracing and assistive and/or adaptive devices
- **Cognitive retraining** to help with concentration, focus, and memory with training exercises

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MedStar Health physical therapy locations.



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