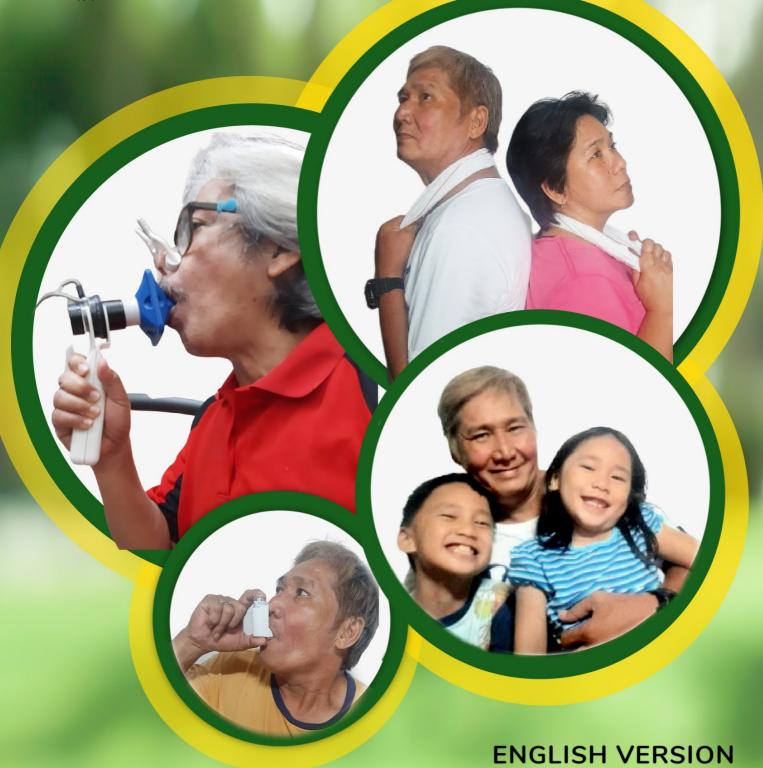


PHILIPPINE COLLEGE OF CHEST PHYSICIANS COUNCIL ON COPD AND PULMONARY REHABILITATION





PATIENT EDUCATIONAL BOOKLET CHRONIC OBSTRUCTIVE PULMONARY DISEASE

PCCP Council on COPD and Pulmonary Rehabilitation (2020)

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FOREWORD

Chronic Obstructive Pulmonary Disease (COPD) is one of the top ten diseases in our country. COPD greatly affects the day-to-day living of patients with this condition, including their families, caretakers and our health system.

The objective of this booklet is to provide useful and practical information on how to **LIVE WELL WITH COPD**. We hope this booklet will be a valuable resource for COPD patients, their families, and healthcare professionals, particularly those living in remote areas.

CONTENTS

	Maria Diagoni			
. Unae	erstandi	ing r	our L	Lungs

II. What is COPD

III. Smoking and COPD

IV. COPD Medications and Devices

V. Exercise and Pulmonary Rehabilitation

VI. Nutrition

VII. Oxygen Therapy

VIII. Coping with COPD

IX. Recognizing COPD exacerbations/flare-ups

X. Travelling with COPD

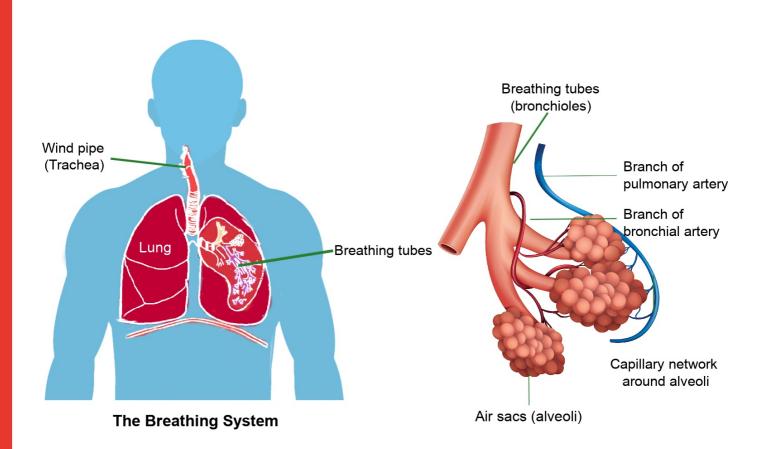
XI. COPD and COVID

Understanding your Lungs

The lung is for gas exchange. Its primary function is to allow oxygen to move from the air into the venous blood, and for carbon dioxide to move out.

Air travels through your nose or mouth into the larynx and into the lungs. Air moves further into your lungs through the lung airways known as bronchioles. The air ends up in air sacs called alveoli at the end of these airways.

The alveoli are the working units of the lungs. In these air sacs, oxygen is absorbed into the blood. Carbon dioxide is released from your blood and breathed out. Oxygen is then taken by the blood to the cells in your body.



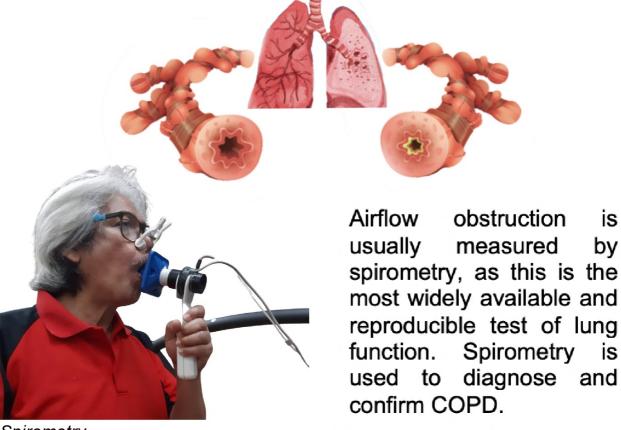
What is COPD?

COPD stands for Chronic Obstructive Pulmonary Disease. It is a condition in which there is narrowing of the airways due to swelling/inflammation and excessive mucus production, while the air sacs become damaged. The narrowing makes the air harder to get in and out of the lungs.

The main cause of COPD is tobacco smoking, but other environmental exposures such as biomass fuel exposure and air pollution may also contribute to the cause of COPD. Genetic abnormalities, abnormal development, and accelerated aging may also predispose individuals to COPD.

The most common respiratory symptoms include shortness of breath or difficulty of breathing during activities, cough, and phlegm.

Airflow obstruction is usually measured by spirometry, as this is the most widely available and reproducible test of lung function. Spirometry is used to diagnose and confirm COPD.



Spirometry

Patient Educational Booklet 3

Smoking and COPD

Cigarette smoke is the leading cause of Chronic Obstructive Pulmonary Disease (COPD). It results in the obstruction or narrowing of the small airways in the lungs and the destruction of the air sacs (alveoli).

The single most important thing you can do to improve your life and health is to **quit smoking**. This includes all forms of tobacco (cigarettes, e-cigarettes, cigars, and pipes). Smoking cessation can slow down the progress of your COPD. It will also make your treatments more effective and helpful.

Most people need help to quit smoking. Ask for help from your doctor to choose the option that works best for you.



Medications are essential in reducing symptoms and preventing flare-ups. It is important to understand how these medications are used and how they may impact your health.

Checklist of what you should know for each medication:

- 1. What is the medication for?
- 2. How does the medication work?
- 3. When is the best time to take the medications?
- 4. For how long is the dose effective?
- 5. What are the possible side effects of the medication and how can you avoid or reduce them?
- 6. Will the medication cause any problems with other medications you are taking?

^{*}Flare-ups/ Exacerbations: a sudden appearance or worsening of the symptoms.



COPD medications fall into two categories:

- 1. **Maintenance medications** are taken regularly, often daily, whether or not you have symptoms. They are very important for helping you control your symptoms. These are used regularly to keep airways open:
- -- Long-acting beta-agonists (LABAs)
- -- Long-acting muscarinic antagonists (LAMAs)
- -- LABA/LAMA combination inhalers
- LABA/inhaled corticosteroids combination inhalers
- 2. Quick-relief/ rescue medications are used when you have increased COPD symptoms or flare-ups. These offer quick relief and relieve shortness of breath. Maintenance medications can be continued during flare-ups:
- -- Short-acting beta-agonists (Salbutamol, Albuterol)
- -- Muscarinic antagonists (Ipratropium)
- -- Combination (Salbutamol/Ipratropium)

Types of COPD Medicines

Maintenance Medications

For regular, long term use to control symptoms and to help prevent flare ups

Reliever Medications

For quick relief of breathlessness Also called rescue medicine

Flare up Medications

For short term use during a flare up of COPD

As the severity of your COPD increases, your doctor may prescribe additional medicines

Inhaled Medications

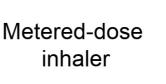
Most COPD medications are delivered by an inhaler. When you breathe in the medication through the inhaler, it goes right into the airways of the lungs. Inhaled medications work to open airways by relaxing tight muscles around them, decreasing swelling in the airways, and reducing mucus.

There are four types of inhaler delivery devices:

- 1. Metered-dose inhalers (MDIs) Pressurized devices that release medication in a fine spray.
- 2. Dry powder inhalers (DPIs) Breath-actuated devices that release a fine, powdered medication. (single dose and multi dose)
- 3. Soft mist inhalers (SMIs) Propellant-free devices that release a dose of medication in a fine mist.
- 4. Nebulizers Devices that break liquid medication into a fine mist that can be inhaled slowly.











Nebulizer

Patient Educational Booklet 7

Other Medications

- Oral Bronchodilators. (salbutamol, doxofylline, theophylline, procaterol)
- Steroids are used to reduce airway irritation or inflammation. These may be given with an inhaler, by nebulizer, by mouth, or intravenously. These are given during flare-ups or exacerbation. (prednisone, methylprednisolone)
- Mucolytics help thin out the mucus, making it easier to cough out. (N-acetylcysteine, erdosteine, ambroxol)
- Antibiotics are often used in flare-ups. These are medicines that can be given for an infection caused by bacteria.



Work closely with your healthcare provider to evaluate which medications work best.

Instructions for a Single Dose Dry Powder Inhaler (DPI)

1. Pull out the mouthpiece cover and open the chamber.

2. Remove the capsule from the blister pack, make sure your hands are clean and dry so as not to leave any moisture on the capsule.

- 3. Place the capsule in the capsule chamber and ensure that it is properly placed to avoid displacing the capsule from the device.
- 4. Close the mouthpiece. You should hear a click when the mouthpiece is closed.
- 5. Perforate the capsule by pressing or squeezing the two side buttons and let go.
- Breathe out all the way.
- 7. Sit up properly and tilt your head back slightly.
- 8. Put the mouthpiece into your mouth between your lips.
- 9. Inhale fast and deep. You know this is correct when you hear a distinctive whirring noise as the capsule spins.
- 10. Remove the inhaler from your mouth and hold your breath for as long as you can up to 10 seconds.
- 11. Exhale through your mouth.
- 12. To make sure you got all of the medicine, open the mouthpiece and look at the capsule. If the capsule is transparent, it means you have delivered the dose. If there's still powder left in the capsule, close the mouthpiece and repeat steps.
- 13. Remove the capsule from the chamber and dispose of it properly.

^{*} Visit www.breathefreely.ph for COPD device inhaler tutorials.

Instructions for using an MDI

- 1. Hold your inhaler upright and take the cap off. Check if there's nothing inside the inhaler mouthpiece.
- 2. Shake the inhaler well.
- 3. Sit or stand up straight and slightly tilt your chin up.
- 4. Breathe out gently and slowly away from the inhaler until your lungs feel empty.
- Put the mouthpiece of the inhaler into the mouth past your teeth and above your tongue. Close your lips around the mouthpiece to make a tight seal.
- Start to breathe in slowly and steadily and at the same time, press the canister on the inhaler once. Continue to breathe in slowly and deeply until your lungs feel full.
- 7. Take the inhaler out of your mouth and with your lips closed.
- 8. Hold your breath for up to 10 seconds
- 9. Then breathe out gently, away from your inhaler.

Instructions for using a Soft Mist Inhaler (SMI)

- 1. Keep the cap closed.
- TURN the clear base in the direction of the arrows on the label until it clicks.
- 3. OPEN the cap until it snaps fully open.
- 4. Breathe out slowly and fully.
- 5. Close the lips around the mouthpiece without covering the air vents. Point the inhaler to the back of the throat.
- 6. While taking a slow, deep breath through the mouth, PRESS the dose release button and continue to breathe in slowly for as long as comfortable.
- 7. Hold the breath for 10 seconds or for as long as comfortable.
- Repeat TURN, OPEN, PRESS after 30-60 seconds for a total of 2 puffs.
- 9. Close the cap until the inhaler is used again.

^{*} Visit www.breathefreely.ph for COPD device inhaler tutorials.



Instructions for a Multi Dose Dry Powder Inhaler (DPI)

Diskus

- 1. Hold Diskus in one hand and put the thumb of your other hand on the thumb grip.
- Push your thumb away from you as far as it will go. The mouthpiece will appear and will click into place.
- 3. Hold Diskus level with mouthpiece facing you.
- Slide lever away from you as far as it will go. You will hear a click. The medicine is now ready. Do not tip the Diskus.
- 5. Turn your head and breathe all the way out. Do not breathe out into the device.
- 6. Put mouthpiece between your lips and make a tight seal.
- 7. Breathe in fast and deep.
- 8. Remove Diskus from mouth and hold your breath for as long as you can up to 10 seconds. Turn your head and breathe out.
- 9. Put your thumb on the thumb grip and slide it backward toward you as far as it will go. You will hear a click when it is closed.
- 10. Rinse your mouth with water and spit the water out.

Ellipta

- Open the cover of the inhaler. Slide the cover down to expose the mouthpiece. You should hear a click and see that the counter will move. Your inhaler is now ready to use. DO NOT SHAKE the inhaler.
- While holding the inhaler away from your mouth, breathe out fully. Do not breathe out into the mouthpiece
- 3. Put the mouthpiece between your lips and close your lips firmly around it.
- Take 1 long, steady, deep breath in through your mouth. Do not breathe in through your nose. Do not block the air vent with your fingers.
- Remove the inhaler from your mouth and hold your breath for about 3 to 4 seconds.
- 6. Breathe out slowly and gently.
- 7. Close the cover of the mouthpiece.

^{*} Visit www.breathefreely.ph for COPD device inhaler tutorials.

Instructions for a Multi Dose Dry Powder Inhaler (DPI)

Turbuhaler

- Hold Turbuhaler straight up and down.
- 2. Hold the red or brown base and twist the white cap off.
- Twist red or brown grip at bottom to the right as far as it will go, then twist all the way back to the left until you hear a click.
- 4. Breathe out. Do not breathe out into the device.
- Put mouthpiece in your mouth between your lips and make a tight seal.
- 6. Breathe in fast and deep.
- 7. Remove the device from your mouth and hold your breath for as long as you can for up to 10 seconds.
- 8. If another dose is required, repeat steps 3 to 7.
- 9. Put cap back on Turbuhaler and twist.
- 10. Rinse your mouth with water. Spit the water out.



^{*} Visit www.breathefreely.ph for COPD device inhaler tutorials.

Exercise and Pulmonary Rehabilitation

Pulmonary Rehabilitation is an evidence-based and comprehensive program that will help you improve your symptoms. This program offers structured and monitored exercise training that improves muscle function to decrease shortness of breath; education on maintaining and improving body function; nutritional advice; emotional and psychological support, and instructions on breathing techniques to lessen breathing problems.

Before you start an exercise program, you need to discuss it with your doctor. If you are referred to this program, you are expected to go at least 2-3x a week for 6-8 weeks. Upon completion of your program, you will be instructed on how to do home exercises.



Leg Exercises



Arm Exercises



Strengthening Exercises



Education

Breathing Techniques



PURSED-LIP BREATHING

- 1. Breathe in slowly with your nose. (2 counts)
- 2. Pucker your lips. (as if you are going to whistle)
- 3. Breathe out slowly through your lips counting to 4 or more.

This breathing teaches you how to extend the time you exhale and allows your lungs to empty more effectively.

Breathing Techniques



Diaphragmatic Breathing

- 1. Place one hand on your chest and the other one just below your rib cage.
- 2. Breathe in slowly through your nose so that your stomach pushes out against your hand. Your chest should stay still.
- 3. Breathe out slowly through your mouth and feel your stomach move back. Your chest should stay still.

Trapped air in damaged air sacs often causes the lungs to over expand. This breathing can help lessen shortness of breath.

Home Exercises

You need to talk to your doctor first prior to starting a home exercise program. When exercising at home, it is important to warm up first before exercising and to cool down after exercising, to allow your heart rate and blood pressure to gradually adjust to activity or rest.

Whenever you exercise, use the scale below to gain the most benefit.

Modified Borg Scale for Breathlessness

Scale	Severity	
0	Nothing at all	
0.5	Very very slight	
1	Very slight	
2	slight	
3	Moderate	
4	Somewhat severe	
5	Severe	
6		
7	Very severe	
8		
9	Very very severe	
10	maximum	

When exercising, you should aim for moderate or somewhat severe (score of 3-4).

If you experience chest pain, nausea, vomiting, dizziness, wheezing, excessive shortness of breath, or coughing of blood during exercise, you should stop and rest immediately.

Upper Body Exercises





Bicep Curls (8-10 repetitions)





Arm side raise (10 repetitions)

Lower Body Exercises

Walking indoors or outdoors or on the spot slowly at a comfortable pace starting from 5-10 mins to 15-20 mins 3x a week.

Other alternatives: cycling (stationary bike) or treadmill





Stop exercising when you experience any of these symptoms:

- -Chest pain
- -Nausea
- -Dizziness or fainting
- -Extreme shortness of breath or wheezing

Warm-up Exercises

3 to 5 repetitions







Head Turning





WORLDS IN LARGEST CONTROL

Side neck bending







Elbow Circling

Warm-up Exercises







Side bending





Forward bending

Exercise and Pulmonary Rehabilitation

List of available pulmonary rehabilitation programs in the Philippines

Chong Hua Hospital, Cebu City 255-8000 loc 76240; 09154913407 Dr. Katrina J. Villegas/ Ms. Saskia K. Lasa

Lung Center of the Philippines 8924-6101 loc 3011 - 3012 Dr. Glynna O. Cabrera/ Ms. Myra Torres

Perpetual Help Medical Center, Las Pinas 874-8515 loc 484 or 416 Dr. Jose Edzel V. Tamayo/ Ms. Marife Bombase

Philippine General Hospital 8554-8400 loc 3157 Dr. Leonora C. Fernandez/ Mr. Leyden Sempio

Philippine Heart Center 8925-2401 loc 3805/ Dr. Abner T. Koh/ Ms. Maria Gemma Betos/ Ms. Jacqueline T. Torres

St. Luke's Medical Center, Quezon City 8723-0301 loc 4189 Dr. Tim S. Trinidad/ Mr. Bong Mostacho St. Luke's Medical Center, Global City 87897700 loc 2029 and 2034 Dr. Celeste Mae L. Campomanes/ Ms. Cyril Tan

The Medical City, Pasig 8635-6789 loc 6238 Dr. May Agno/ Ms. Jahziel Fernandez

The Medical City, Iloilo (033) 500-1000 loc 50004 Dr. Rhea Anne C. Celis/ Mr. Mark Carreon

University of Santo Tomas Hospital 8731-3001 loc 2561 Dr. Tim Trinidad/ Ms. Maricel Nicomienda

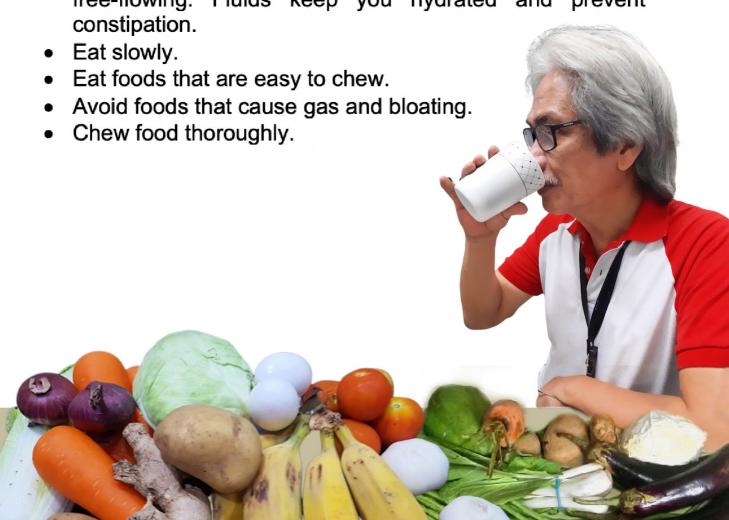
Veteran's Memorial Medical Center 89276426 local 1501 Dr. Chona A. De Vera/ Ms. Abby Carpio

Nutrition

A balanced diet will help maintain your health and may decrease the risk of lung infections. It is important to stay well-nourished to keep your breathing muscles strong and your energy levels up. Good nutrition can help you have a better quality of life.

To maintain a healthy weight:

- Eat several smaller meals throughout the day instead of three large ones. Digestion requires energy. Energy requires oxygen. If you eat smaller meals, you use less oxygen.
- Drink plenty of fluids (unless you have been advised otherwise by your doctor) to keep airway mucus thin and free-flowing. Fluids keep you hydrated and prevent constipation.



Nutrition



Source: www.fnri.dost.gov.ph

Oxygen Therapy

Oxygen therapy is a medical treatment. It must be prescribed by a doctor. For people with COPD who do not get enough oxygen naturally, oxygen therapy can improve sleep, mood, and mental alertness. It also allows the body to conduct its everyday functions, improving quality of life, and survival.

Oxygen is not addictive, hence, increased use won't make you need it more. Not all patients with COPD will need or benefit from oxygen.

Your doctor may use tests to help decide if you need oxygen or not. Arterial blood gas (ABG) tells how well your lungs are getting oxygen into your blood and remove carbon dioxide out of your blood. The blood is extracted from your arm (usually near your wrist) and taken from an artery.

Pulse oximetry is another way of measuring your blood oxygen level. Blood sample is not needed. The amount of oxygen is estimated by a small device clipping to your finger or ear lobe. The device reads the oxygen level directly through your skin.

Types of Oxygen System

- 1. Compressed gas oxygen in steel or aluminum tanks in different sizes for home use or travelling.
- 2. Oxygen concentrators electrical device (needs electricity source) that removes nitrogen from air to make oxygen. Must have regular calibration and filter changes.





Oxygen Therapy

If your doctor prescribes oxygen, ask about:



The oxygen flow rate or setting, so you receive the right amount of oxygen per minute of use.



When you should wear your oxygen, such as during activities, while sleeping or if continuously.



Which type of oxygen equipment best suits your lifestyle.

Oxygen therapy must be prescribed by a trained healthcare professional and it should be re-assessed regularly. If used incorrectly, oxygen can be very dangerous.

Oxygen is combustible! Oxygen canisters should be kept 5-10 feet away from gas stoves, fireplaces, woodstoves, candles and other open flames. Make sure there is NO SMOKING in your home or car when oxygen is in use.



Tips in Conserving Energy

- · Move slowly.
- Use a cart with wheels to complete daily tasks.
- Sit to dress, undress, shave, put on makeup, and cook.
- Put the things you use regularly at waist level or within easy reach.
- Rest after meals when your body is working hard to digest food.
- Use a shower stool and hose sprayer for bathing.
- Use helping devices, such as long handled grabbers for putting on socks and shoes, and for reaching high places.



Managing Stress

Stress and anxiety can make breathlessness worse. It is vital for people with COPD to focus on lowering stress and anxiety and to learn to relax.

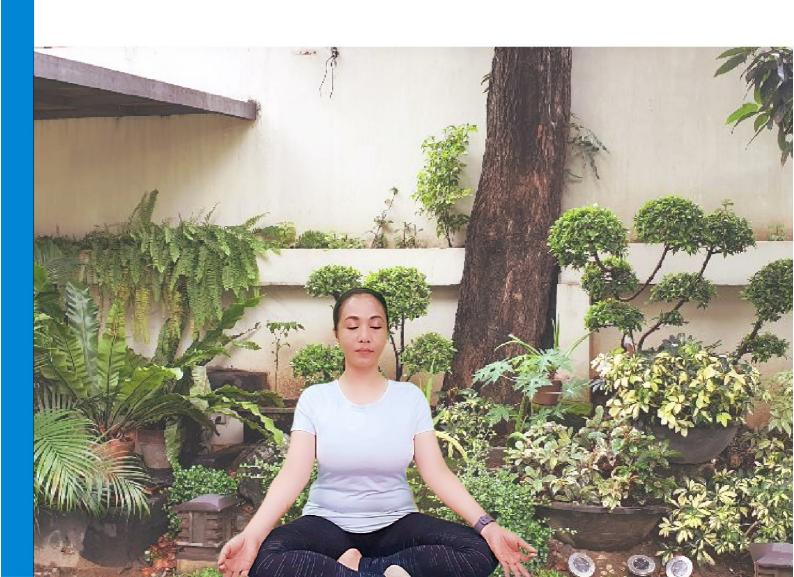
Through simple methods, we can reduce the impact of stress and anxiety. These methods can help us calm our immediate reaction to stress. We can relieve long-term tension and maintain a healthy balance in our lives.

- Exercise and stretching
- Meditation, mindfulness
- Prayer
- Listen to relaxing music
- Concentrate on things that make you happy and comfortable
- Personal or Group therapy



During a panic attack, you can follow a 3-step plan to help it stop:

- Get in a position that will help your breathing muscles work better. Sit. Lean forward with your arms on your lap or a table.
- Breathe in through your nose. Pucker your lips like for a kiss. Breathe out through these pursed lips. Breathe out for longer and longer periods.
- Relax all your muscles not involved in breathing. Drop your shoulders. Let your arms go limp. Close your eyes and relax.



Energy conservation is about planning your day-to-day activities and finding more efficient ways of doing them to achieve a balance between activity and rest. By learning to conserve energy with day-to-day tasks, you will be able to do more activities with less effort and shortness of breath.

Persons with COPD use more energy to simply breathe. Always remember to coordinate your breathing with all activities.



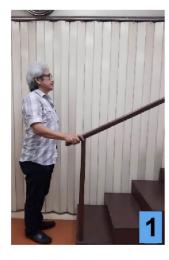


Breathe in when you start

Exhale



Breathe out as you complete the activity

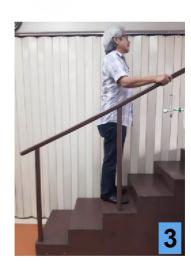


Breathe in

















Your healthcare team may consist of your doctor, respiratory therapist, physiotherapist, psychologist, nutritionist, family members, friends and anyone else involved in looking after your health. Good communication with everyone in your team will help you look after your health.



Body positions to lessen shortness of breath





Sitting in a chair: Lean forward and rest your forearms on your lap. Lean forward supporting your forearms on a table. You may wish to rest your head forward onto a pillow





Standing: Lean with your forearms resting forward on a support (table, chair or desk) • Lean your chest forward slightly and rest your hands on your thighs

Finally, remember the five Ps:

Plan Organize what you do. Get rid of distractions and

unnecessary tasks.

Pace Take it slowly. Do not rush and become

frustrated or overtired.

Priorities Consider what the important tasks are.

Posture Look after your spine and maintain a good

posture.

Proficiency Practice energy conservation techniques and

reap the benefits.

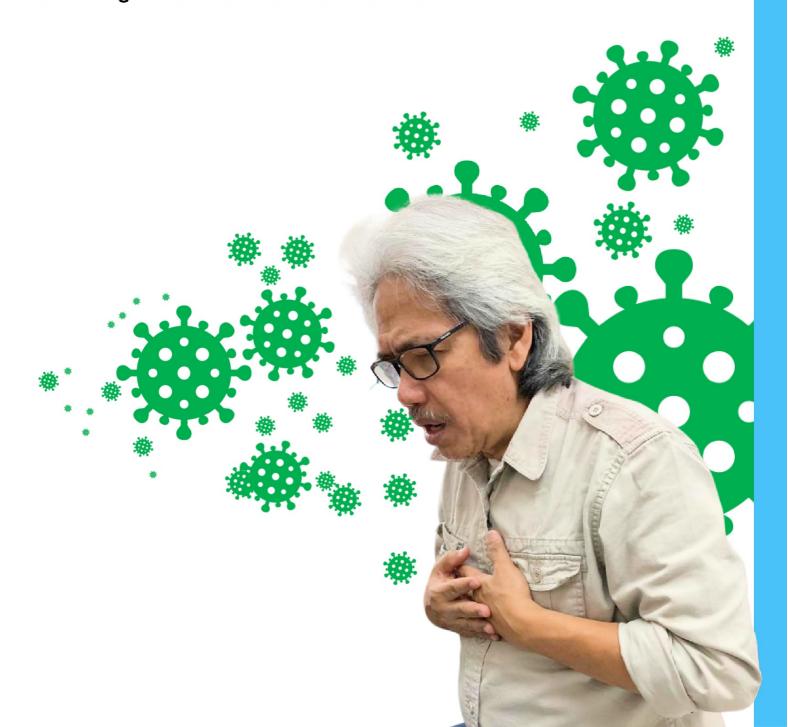


It is very important that you learn to monitor your lungs and be familiar with what is normal for you. You can then recognize the signs and symptoms of an exacerbation or lung infection and seek help straight away to treat the infection and avoid going to the hospital.



An infection in your lungs is almost always the cause of an exacerbation. These infections may be caused by viruses or bacteria.

Other causes of exacerbations include: sinus infections, indoor and outdoor air pollution, pulmonary edema and blood clots in the lungs.



Prevention

You cannot totally prevent exacerbations but you can reduce how often you have them. You can reduce how serious they are, if you work to stay as healthy as possible.

Wash your hands often to help prevent infections.

Having COPD increases your chances of getting the flu and other respiratory infections, including pneumonia. To lower your chances of contracting a lung infection, you should have flu and pneumonia vaccinations. Ask your physician for your schedule of vaccination.



Take your COPD medications regularly to help reduce exacerbations

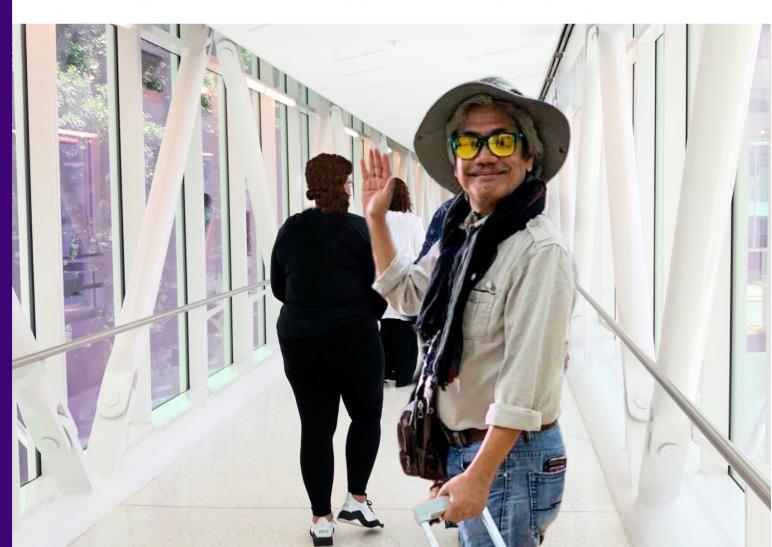
Develop an 'Action Plan' with your doctor which includes steps on what to do if you become unwell. An action plan should be reviewed regularly by your doctor.



Travelling with COPD

COPD patients can still take vacations, visit friends and family, travel and see the world. You just have to do extra planning beforehand to have a safe and fun trip.

There are some special issues that COPD patients need to know when flying. Airplane cabins are pressurized for high altitudes which means there is less oxygen in the air of the plane during flight. For people with healthy lungs, this is not a problem; however in COPD patients, they may be at risk of having low oxygen levels in their blood. Another problem that may also arise during flight is that the expansion of gases may cause problems in COPD patients with bullae or "bubbles" in their lungs, or those with a previous history of pneumothorax.



Travelling with COPD

Important Air Travel Tips for people with COPD

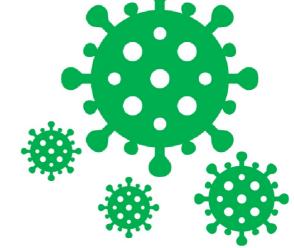
- Discuss with your doctor about your flight-related risks before flying. Make sure you allot enough time in case tests need to be done before you are cleared fit for travel, especially tests to determine if you will need in-flight oxygen.
- Have your medications reviewed and refilled as needed to ensure an adequate supply during your entire trip. Make sure to keep these within easy reach during the flight.
- Aside from soft copies in your device, bring along a folder with printouts of all your insurance documents, prescriptions, and medical workups.
- Research ahead about the healthcare providers and medical facilities at the place where you are traveling to, especially if you are planning to stay there for a long time.
- Best to travel with a companion; someone who is familiar with your symptoms, knows your medications, and can help you physically with your belongings.
- If you are easily fatigued, consider asking for a wheelchair.It will save your energy and reduce stress.
- 7. You should take direct flights, or one with as few stopovers as possible.
- Stay hydrated; sit close to the lavatory; and avoid sedatives, caffeine and alcohol while in flight.
- Exercise the usual precautions for avoiding infections during travel, such as wearing a mask and frequent use of hand sanitizer.
- 10. Best to delay travel for 4-6 weeks if you've had a recent flare-up or exacerbation.

COVID and **COPD** Patients

COPD patients are some of the worst affected by the COVID pandemic, as it has been shown that COPD is associated with severe coronavirus disease. In order to prevent flare-ups and remain symptom-free, patients are encouraged to continue their regular maintenance medications. There is presently no evidence that these medications can help the risk of transmission, or the severity of COVID disease.

As a COPD patient, what can you do to decrease your risk of getting COVID-19?

- Stay at home and limit your interactions with other people as much as possible.
- Practice physical distancing (keep 6 feet away from everyone) if you do need to go out.
- Wear a mask whenever you leave your home or whenever someone visits you. The best masks are N95 and surgical masks, but if these are not available, then a 2 or 3-ply cloth mask will do. Remember not to touch the front of the mask and only handle it using the straps!
- There is accumulating evidence that coronavirus can go airborne and enter through the eyes. Wear a face shield or goggles when you leave the house if they are available.
- Wash your hands frequently with soap and water for at least 20-30 seconds. If this is not possible, keep alcohol or hand sanitizer handy and use it frequently.



COVID and **COPD** Patients

- Keep taking your current medicines, including those with steroids in them ("steroids" is another word for corticosteroids).
- Make sure that you have at least a 30-day supply of your medicines.
- Avoid triggers that make your symptoms worse.
- Call your healthcare provider if you have concerns about your condition or feel sick.
- Get vaccinated for flu and pneumonia.



References:

- 1.Better Living with Chronic Obstructive Pulmonary Disease A Patient Guide 3rd edition Lung Foundation Australia 2016.
- 2. Chronic Obstructive Pulmonary Disease A Patient Information Booklet Canberra Hospital and Health Services 2011.
- 3.Living Well with COPD Patient Education Guide CHEST Foundation 2018
- 4.Exercise and advice for people living with a heart or lung condition Royal Brompton & Harefield NHS Foundation Trust.
- 5. Council of Therapeutics and Diagnostics- Inhaler Gadget Use.

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