

COPD (Chronic Obstructive Pulmonary Disease) Foundation Newsletter

Welcome to the 2nd issue of the COPD Foundation Newsletter, where you will find the following:

1. "Thank You" Note
2. The COPD Foundation and COPD
3. Patient Story
4. Tips for Daily Living – A Physiotherapist's Perspective
5. The Importance of Nutrition in Living with COPD

**Thank You
for
Attending**



COPD Foundation Patient Forum
Wednesday, 19 February 2025
18h00 to 19h00
Virtual

Powered by  **ALCHEMY**
HEALTH TECHNOLOGIES

The COPD Foundation of South Africa would like to place on record, our sincere appreciation to all who supported the COPD Patient Forum that we hosted on 19 February 2025. As COPD progresses, people affected by the disease find it more difficult to carry out their normal daily activities, mostly due to breathlessness. We are thankful to the speakers who offered some tips on how to live daily with COPD, and to all attendees who gathered the insights shared. We look forward to your participation at future events.

The COPD Foundation and COPD

On 20 November 2024, which was World COPD Day, we relaunched the **COPD Foundation of South Africa** to revive its existence. The **COPD Foundation of South Africa** is a member of the **Global Allergy and Asthma Patient Platform (GAAPP)**. GAAPP represents 155 organisations in 61 countries from all continents. The COPD Foundation aims to empower patients, carers and healthcare providers of patients who live with COPD, to improve the quality of life and health outcomes for these patients.

According to the Global Initiative for Chronic Obstructive Pulmonary Disease (GOLD) 2023 report, the term **Chronic Obstructive Pulmonary Disease (COPD)** refers to a chronic lung disease characterised by chronic respiratory symptoms due do abnormalities of the airways (bronchitis) and/or abnormalities of the air sacs or alveoli (including emphysema), which cause persistent and often progressive airflow obstruction.

Symptoms of COPD may vary from person to person, but the common ones are:

- This disease is characterised by breathlessness
- Frequent coughing (with and without mucus)
- Wheezing
- Tightness in the chest
- Unusual tiredness

Global statistics related to chronic obstructive pulmonary disease (COPD) continue to highlight increasing concern as the disease becomes an important contributor to morbidity, disability, and mortality. It is estimated that COPD affects 391 million people globally, with three million people dying each year around the world.

COPD cannot be cured, but with the right diagnosis and treatment, there are many things you can do to breathe better and enjoy life and live for many years. Measuring one's lung function through spirometry is an important step in diagnosing COPD.

Disclaimer: Please note that all content shared in this publication is not intended to give or replace medical advice or treatment from your doctor. This information is not intended to prevent, diagnose, treat, or cure any disease. It is important that you always consult your doctor or specialist before starting any treatment, before starting or modifying any nutrition, exercise, or lifestyle programme. Also, consult your doctor for any questions regarding your medical condition.

Patient Story

A patient perspective as shared at the launch of the COPD Foundation which coincided with World COPD Day in 2024



Picture (courtesy of Mrs. A): The remains of Mrs A's home after a devastating fire in 2022

This is a brief narration from a patient, that we will refer to as Mrs A, who shared her experience of living with COPD on 20 November 2024. This was on the occasion of the virtual Launch of the COPD Foundation of South Africa.

The following two quotes have become even more important in Mrs A's life, since finding out that she has COPD.

"Failure is a feeling long before it becomes a result." (Michelle Obama)

*"If you know your enemy and know yourself, you need not fear the results of a hundred battles."
(Anon)*

In Mrs A's case, she found out about her diagnosis of COPD in 2023, because the acronym kept featuring in various medical results of tests conducted over the past few years, while doctors were investigating the following:

- a sudden and drastic fluctuation in blood pressure
- a high cholesterol and
- severe bronchitis

This was after she became very ill following her exposure to toxic fumes emitted by a devastating fire which caused her home to burn down in 2022.

Amongst the results suggestive of a diagnosis of COPD in Mrs A's case, were those of chest X-rays, which stated the following:

- There is significant hyperinflation of the lung parenchyma with features of COPD.
- During a bout of bronchitis, persistent hyperinflation of the lungs and coarsening of the broncho vascular markings were noted.

In addition to Mrs A being managed for COPD, she was also referred for a cardiac assessment to investigate the blood pressure changes and the high cholesterol levels.

Due to the absence of an explanation for the term COPD from the medical specialists, who also did not express any real concern about the condition, Mrs A had to rely on the internet using various medical websites to research information on COPD as a disease. Mrs A was for the first time introduced to COPD as Chronic Obstructive Pulmonary Disease and got to know that it is a disease of the airways (chronic bronchitis) and/or a disease of the air sacs (emphysema). She also learnt that even though smoking is the main cause of the disease globally, it only accounts for a third of patients suffering from this life-threatening condition in low- and middle-income countries (LMICs). The rest have never smoked, but may have been exposed to air pollution, or worked in an environment where:

- Burning of fossil fuel for heat and energy is part of daily survival
- Toxic fumes and smoke from industry are present
- Chemicals and other toxins in chemical plants and underground mining are present

In addition to smoking and environmental factors above, other notable risk factors for COPD are:

- Genetic factors, such as alpha-1 antitrypsin deficiency – even though less common, it is a notable cause.
- Infections, e.g. Tuberculosis (TB), pneumonia
- Asthma
- Factors in Early Life - poor lung development can increase the risk of COPD later in life.

- Socio-economic status - Individuals with lower socioeconomic status are deemed to be at a higher risk of developing COPD, even after accounting for smoking and other lifestyle factors.

The more Mrs A empowered herself with knowledge about COPD, the more she realised that COPD is vastly underdiagnosed and that there is little to no awareness about the disease and the consequences thereof. At no stage was she informed by her treating team about the need to prevent further damage to her lungs, or about the complications of COPD including the possibility of death with advanced disease.

She said, "It was necessary for me, to be part of the COPD SA launch today, to be able to share my journey as a patient, ask many questions and express the fears that most patients must experience daily, which are the reality of what it means to live with COPD. This I hope, will create awareness and highlight the plight of us as patients." "It was only when I applied to be a candidate for a clinical trial, that I had my very first lung function test, " Mrs A stated. Measuring one's lung function is an important step in diagnosing COPD, and this is measured by conducting a spirometry test, which is an important tool for not only diagnosing COPD but also determines the extent or severity of the disease.

Some insights gained by the COPD Foundation from Mrs A 's patient perspective, included the following:

- There is an urgent need for awareness campaigns on COPD and the understanding of the disease, its management and prevention thereof.
- COPD is underdiagnosed. More data is needed to depict the true extent of the problem in South Africa and on the African continent.
- Early detection of COPD through appropriate health screening is important as it can prevent unnecessary complications and even death. Lung function tests should be part of regular screening activities to encourage preventative healthcare and early detection thereby facilitating early referral for further medical treatment and management, where required.
- A holistic approach is necessary for managing patients with COPD, as they may require emotional support, assistance in coping with daily living and management of co-morbid conditions, including mental health. Support groups would be beneficial in this regard.
- For the desired impact to be achieved in managing COPD, there should be greater collaboration of stakeholders in the public and private sectors of health, including patients, health care practitioners, medical schemes, funders, donors, pharma companies and government. This also includes identifying opportunities for patients living with COPD to potentially benefit from multinational clinical trials that pave the way for future therapies.

COPD Patient Forum Event of 19 February 2025

The Patient Forum Event of 19 February 2025, was the first activity to be hosted by the COPD Foundation (South Africa) in 2025, following the launch of the Foundation in November 2024.

The COPD Patient Forum focused on lifestyle tips for patients who live with COPD. As speakers, we had the pro bono support of a physiotherapist and a dietitian.

Tips for Daily Living - A Physiotherapist's Perspective

Interventions Relevant for COPD

Ms. Karen Alexander-Singh is a physiotherapist at her practice in Sunninghill Hospital (<https://kaphysioint.co.za>). She has a special interest in cardiopulmonary rehabilitation. With her clinical expertise, evidence-based practices and a personalised approach to care, she offered practical guidance for managing the symptoms of COPD and improving the quality of life for affected patients, through the following approaches:

1. Airway clearance techniques
2. Breathing exercises
3. General fitness and aerobic exercises

1. Airway Clearance Techniques

Some of the airway clearance techniques which help in loosening and clearing the mucus from the lungs thus improving breathing, were listed as:

- a) Chest physiotherapy conducted manually with cupped hands or vibrations (which is sometimes referred to as 'beating the drums'), loosens the mucus so it can be coughed up.
- b) The above may be aided by 'postural drainage' which targets different parts of the lungs by placing the body in different positions to assist the mucus drainage.
- c) Positive Expiratory Pressure (PEP) Therapy involves breathing out against a resistance, which improves airway clearance, improves lung volume and alleviates hyperinflation.

If using PEP therapy, precautionary measures are necessary in patients who are at risk of internal pressure building up, e.g. raised intracranial pressure, facial and ear nose and throat (ENT) related trauma, acute sinusitis, pneumothorax, acute asthma attack and

worsening of COPD. It is also possible to be guided by your physiotherapist to create a do-it-yourself (DIY) PEP device for home use.

2. Breathing Exercises

Breathing exercises can improve the quality of life for patients living with COPD, by reducing breathlessness, improving lung function, and enhancing exercise tolerance.

Some of the breathing exercises for consideration are illustrated below.

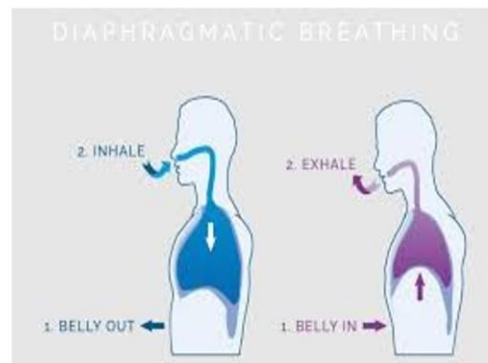


BREATHING EXERCISES



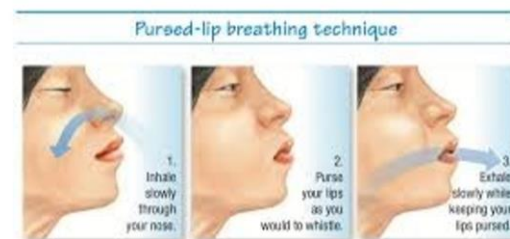
Diaphragmatic Breathing :

Focus on using the diaphragm by breathing deeply into the abdomen .



Pursed Lip:

Inhale through the nose for two counts, purse lips as if whistling, and exhale slowly through the lips for four counts.



Note: Do not force your lungs to empty completely.

Huffing: A breathing technique that involves taking a slow deep breath through your nose and then exhaling forcefully with a huffing sound through an open mouth, as if trying to fog up your spectacles with warm air, to clean them. This huffing is repeated 2 to 3 times as you breathe out.

Paced Breathing: This means that you are synchronising or matching your breathing to the rhythm of your activity, e.g. breathing in when taking one step and then taking two steps when breathing out or breathing in as you bend and breathing out when you relax during exercise.

Active Cycle of Breathing (ACBT): For patients living with COPD, the ACBT technique combines the following which are performed sequentially and repeated in a cycle until the chest is cleared of mucus:

- Controlled (relaxed) breathing (which takes place for 20 – 30 seconds) followed by
- 3- 4 Deep breaths to mobilise the secretions and
- Huffing followed by a cough if needed, resulting in clearing of excess mucus.

Patients are encouraged to schedule breathing exercises as part of their daily routine, as they are highly beneficial for managing COPD.

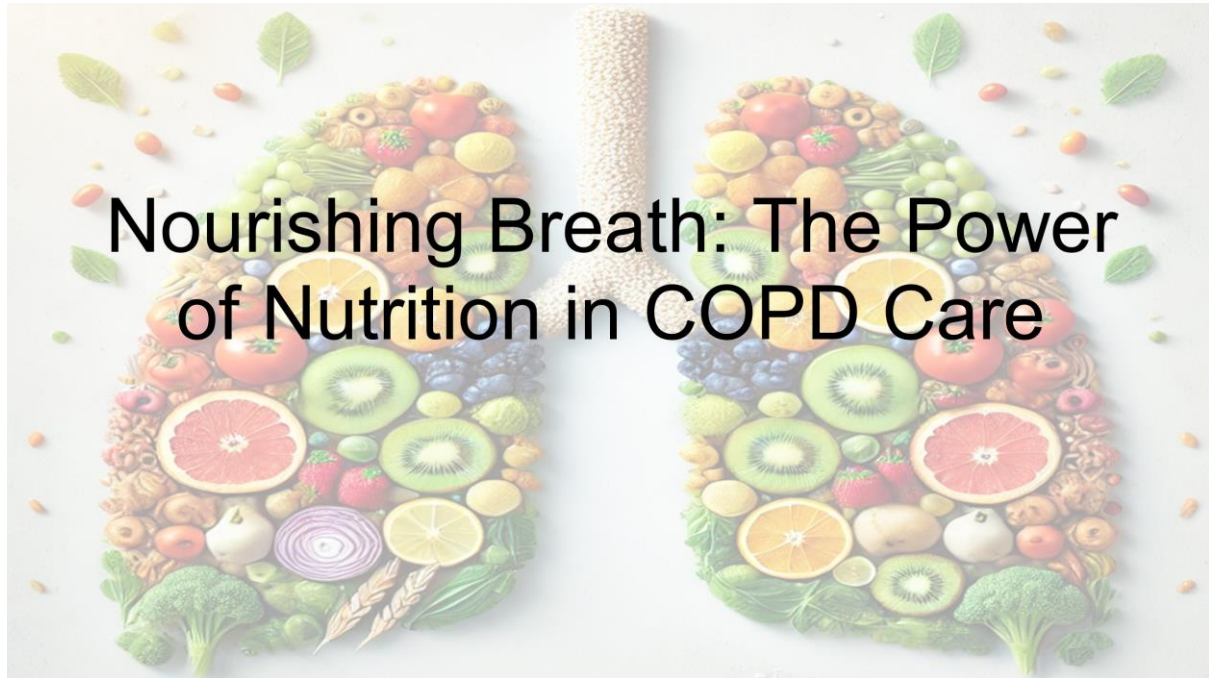
The COPD Foundation advises patients to discuss the DIY PEP bottle or any of the physiotherapy guidance with your health care practitioner or physiotherapist. For more information on the above, you can visit the website of the presenting physiotherapist at: <https://kaphysioinc.co.za>

3. General Fitness and Exercise

A question often posed by patients affected by COPD is, “Can I exercise and how can I exercise when I cannot even catch my breath?”

Ms. Karen Alexander-Singh re-emphasises that both aerobic exercise and strength training play an important role in the management of COPD. Patients should incorporate an exercise routine to enhance general fitness, reduce breathlessness, and improve the ability to perform daily activities. It is, however, important that patients’ exercise plans have the approval of their health care practitioners to ensure they are appropriate for the patient’s condition and are carried out safely and effectively.

The Importance of Nutrition in Living with COPD



The dietitian for the day was Ms. Cara Human of Medifood (www.medifoodinternational.com) who addressed the audience on the importance of nutrition when living with COPD. As someone with a passion for the science of food and its role in the body, she offered informed and effective solutions, including advice for COPD-related malnutrition. She reminded us that proper nutrition plays a crucial role in managing COPD and improving the quality of life for patients. Malnutrition is a common occurrence in these patients, and addressing it contributes positively to managing the COPD.

Nutrition plays an important role in managing COPD. A diet rich in nutrients (carbohydrates, fats and proteins) is necessary to meet the increased energy demands required for breathing in people living with COPD. Their muscles (including respiratory muscles) may require 10 times more calories than someone without COPD, especially in an exacerbation.

It is important to note the following key dietary recommendations for people living with COPD:

- Maintaining a healthy body weight is crucial, as being underweight can weaken the body, while being overweight can add strain to the lungs, compromising overall prognosis for the patient.
- Eating fewer carbohydrates and more fats may help reduce carbon dioxide production during metabolism, thereby improving breathing.
- Adequate protein (eggs, fish, chicken, beans) is crucial for maintaining muscle strength, including respiratory muscles.

You are not alone

COPD Advocacy, Research, Education and Support

Learn More... Breathe Better

- A diet rich in antioxidants, vitamins, and minerals can support overall lung health and reduce inflammation.
- Incorporating healthy fats (found in olive oil, avocados, and nuts) into the diet can be beneficial for energy and overall health. Other good fat sources to consider are fatty fish (like salmon, sardines), flaxseeds, and walnuts which are rich in omega-3 fatty acids, have anti-inflammatory properties and support lung health.
- It is important to rest just before eating, sit upright while eating to help your lungs with breathing, eat slowly and take smaller bites of food. Also, take a break in between bites and breathe deeply.
- Eat small, frequent meals (4 to 6 meals a day) to prevent bloating. This also enables your diaphragm to move freely and your lungs to breathe in and out more easily.
- Avoid foods that cause gas or bloating, including processed and sugary foods, as they generally make breathing more difficult.
- Drink fluids to make your mucus thin. However, if drinking liquids with meals fills you up quickly, reduce your fluid intake or drink after meals.

For more information on the importance of nutrition in COPD, you can visit

www.medifoodinternational.com

Education

Educating patients on how to live better with COPD is an ongoing process. To support them in improving their quality of life, they also need to stay informed about the following, in addition to physiotherapy, exercise and nutrition:

- Staying hydrated
- Smoking cessation
- Taking medication as prescribed
- Correct usage of inhaler
- Vaccination and prevention of infections
- Avoiding potential triggers, e.g. smoke and dust
- Mental Wellness

The above is a list of some of the topics that the COPD Foundation will bring to interested parties soon. Stay on the lookout for future sessions. In the meantime, please visit the COPD Foundation website: www.copd.co.za to find more information on COPD.

References:

1. [American Thoracic Society | 2023 GOLD Report Proposes a New...](#)
2. Adeloje D, Song P, Zhu Y, et al. Global, regional, and national prevalence of, and risk factors for, chronic obstructive pulmonary disease (COPD) in 2019: a systematic review and modelling analysis. *Lancet Respir Med.* (2022) Vol 10(5); 447-458 [REF-162199]
3. The Lancet. Global burden of 288 causes of death and life expectancy decomposition in 204 countries and territories and 811 subnational locations, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021
4. Quaderi, S. A., & Hurst, J. R. (2018). The unmet global burden of COPD. *Global health, epidemiology and genomics*, 3, e4.
5. Agustí A, Celli BR, Criner GJ, Halpin D, Anzueto A, Barnes P, Bourbeau J, Han MK, Martinez FJ, Montes de Oca M, Mortimer K, Papi A, Pavord I, Roche N, Salvi S, Sin DD, Singh D, Stockley R, López Varela MV, Wedzicha JA, Vogelmeier CF. Global Initiative for Chronic Obstructive Lung Disease 2023 Report: GOLD Executive Summary. *Am J Respir Crit Care Med.* 2023 Apr 1;207(7):819-837. doi: 10.1164/rccm.202301-0106PP. PMID: 36856433; PMCID: PMC10111975.
6. American Lung Association
7. WHO
8. Physiopedia. Chronic Obstructive Pulmonary Disease (COPD). Available at: <https://www.physiopedia.com>
9. Global Allergy and Airways Patient Platform (GAAPP). COPD Resources and Advocacy. Available at: <https://www.gaap.org>
10. NHS Foundation and NHS Trust. COPD Management and Guidelines. Available at: <https://www.nhs.uk>
11. Mestriner RG, et al. (2009). Optimum design parameters for a therapist-constructed positive-expiratory pressure therapy bottle device. *Respiratory Care*, 54(4), 504-508.
12. Yancey JR, Chaffee MD. (2014). The role of breathing exercises in the treatment of COPD. *American Family Physician*, 89(1), 15-16.
13. Asthma and Respiratory Foundation New Zealand. COPD Resources and Guidelines. Available at: <https://www.asthmafoundation.org.nz>
14. Breathe "The Lung Association. COPE and Physical Activity, pp. 17-26. Available at: <https://www.lung.ca>
15. Lung Foundation Australia. COPD Information and Support. Available at: <https://www.lungfoundation.com.au>
16. British Thoracic Society. COPD Guidelines and Research. Available at: <https://www.brit-thoracic.org.uk>
17. Collins, P.F. & Stratton, R.J., 2019. Nutritional support in chronic obstructive pulmonary disease: A systematic review and meta-analysis. *Journal of Thoracic Disease*, 11(Suppl 17), pp.S2230–S2237. Available at: <https://pmc.ncbi.nlm.nih.gov/articles/PMC6831917/>
18. Schols, A.M.W.J. et al., 2014. Nutritional assessment and therapy in COPD: A European Respiratory Society statement. *European Respiratory Journal*, 44(6), pp.1504–1520. Available at: <https://publications.ersnet.org/content/erj/44/6/1504>
20. Hanson, C. et al., 2023. The role of nutrition in the development and management of chronic obstructive pulmonary disease: A review. *Nutrients*, 16(8), p.1136. Available at: <https://www.mdpi.com/2072-6643/16/8/1136>
21. Collins, P.F., Elia, M. & Stratton, R.J., 2013. Managing malnutrition in COPD: A review. *Respiratory Medicine*, 107(6), pp.808–813. Available at: <https://www.resmedjournal.com/article/S0954-6111%2820%2930388-7/fulltext>
22. [Nutrition and COPD | American Lung Association](#)