

Living with Chronic Obstructive Pulmonary Disease (COPD): What You Need to Do?

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ABSTRACT

Chronic obstructive pulmonary disease (COPD) is a disease in your windpipe, it occurs when your windpipe gets obstructed or narrowed down by some of your lung-related problems. Many conditions may cause COPD in you, such as you may have chronic bronchitis: When the inner layer of your lung tree and its branches (bronchi) are irritated by an infection or another external cause, such as smoking or just, your lung will release an amount of mucus (thin jelly-like oily substances), and that may block your windpipe (trachea). You may have emphysema: When small lung spaces look like bee-hive (lung alveoli) have a problem. The lung alveoli have a role in passing your filtered blood with a good amount of oxygen to distribute into your entire body, which is pumped out by your healthy heart. If you are suffering from emphysema, and your lung alveoli cannot continue that job sufficiently, then you are in trouble. This may lead to COPD. The educational leaflet may help you determine what you need to do when suffering from COPD. You may have chronic asthma: Sometimes you may experience permanent obstacles in your windpipe due to repeated asthma, and you are suffering for quite a long time. Therefore, if any of the above conditions in your lungs are detected as COPD, this leaflet will help you.

Keywords: Chronic obstructive pulmonary disease, Leaflet, Patients' information, What you need to do, Your lung.

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LIVING WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

What You Need to Do?

What is Chronic Obstructive Pulmonary Disease?^{1,2}

Chronic obstructive pulmonary disease (COPD) is a disease in your windpipe, it occurs when your windpipe gets obstructed or narrowed down by some of your lung-related problems. Many conditions may cause COPD in you, such as:

*You may have Chronic Bronchitis*³

When the inner layer of your lung tree and its branches (bronchi) are irritated by an infection or another external cause, such as smoking or just, your lung will release an amount of mucus (thin jelly-like oily substances), and that may block your windpipe (trachea).

*You may have Emphysema*⁴

When small lung spaces look like bee-hive (lung alveoli) has got a problem. The lung alveoli have a role to pass your filtered blood with a good amount of oxygen to distribute into your entire body, which is pumped out by your healthy heart. If you are suffering from emphysema, and your lung alveoli cannot continue that job sufficiently, then you are in trouble. This may lead to COPD.

*You may have Chronic Asthma*⁵

Sometimes you may experience permanent obstacles in your windpipe due to repeated asthma, and you are suffering for quite a long time.

Therefore, you may suffer from COPD if you have any of the above conditions in your lung (respiratory) system.

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Why have you Got COPD?

Smoking is Your Main Culprit to Start COPD

Of course, if you are:

- Working in a dusty area
- Living in the area where you do not have good flow of natural (non-polluted) air to breathe
- Cooking in a smoky kitchen (with wood, leaf, charcoal, dried cow dung, husk, etc.)

- Working in a place where a lot of smoke is around you (you are passively smoking)
- Even, it may happen to you if your parents or grandparents suffered from COPD (family history)

What do You Feel When You Get COPD?

You may start:

- Coughing quite often
- The sticky sputum (phlegm) with your cough is coming out
- Suffering from shortness of breath
- Listening to a wheezing sound from your chest and throat
- Getting infection in your lung — may happen to you quite frequently
- Losing your weight
- Developing anaemias
- You look pale and may feel weak and tired



Fig. 1: Spacers

How to Overcome COPD?

Consult with your doctor. They may prescribe you an antibiotic and/or steroid. Your doctor may also advise on your diet, refer you for lung exercise, stop tobacco clinic, etc.

Use an inhaler with a spacer, so that your steroid drug does not go into direct contact in your mouth lining, rather it goes to your windpipe straight away. If you are not able to avoid exposing inhalation drug (steroid), and then that may affect your mouth cavity with a fungus infection (a type of fungus). Then you need to consult with your doctor about a suitable one, and its proper method of use (Fig. 1).

Spacers (See the Images of Spacers)

If your device is technology sensitive (not user-friendly), you may face difficulty. They are designed for use with steroid inhalation. A spacer is fitted into it (Fig. 2).

A spacer is a plastic dome with a mouthpiece at one end and a fitting for your inhaler at the other side. The drug is delivered more effectively to your lungs. That way, it helps you by reducing side effects, especially those caused by steroid inhalers. The other advantage of the spacer is that the drug is directly delivered into your windpipe rather than exposed to your mouth cavity lining. This may largely prevent candida-related side effects, such as candidal infection. The smaller type of spacer is convenient for carrying in your pocket. Make sure you are not developing any abnormal health conditions, as you are on steroids. You need to inform your doctor in case you have another health problem.

Using Your Spacer and Inhaler Correctly can be More Effective than Using a Nebulizer⁶

Using Your Spacer

If you are having two puffs from your inhaler, you then follow the instructions below:

- Your inhaler must fit onto your spacer properly. Ask your practice nurse or doctor if you are unsure.
- You make sure the valve in the spacer is working: Some of them click when you open and shut when you breathe through them, and others make a whistling noise. Anyway, you ask your doctor or a nurse to instruct you. Usually
- Shake well: Always shake well before fixing your inhaler onto the spacer.



Fig. 2: Types of small volume spacer

- Empty Your Lung: Breathe out to empty your lungs.
- Seal Your Lips: Seal your lips around the spacer mouthpiece.
- Hold The Spacer: Hold the spacer at a suitable level, and then activate
- Breathe in slowly and deeply, and to do that—
 - Hold your breath for a count of 10 or as long as you can. (This allows the medicine to reach to a smaller part of your lungs).
 - If you are unable to take slow deep breaths or hold your breath, then breathe in and out as normal several times.

Taking Care of Your Spacer

Take your spacers apart once a week, wash it in warm soapy water, rinse and drip-dry. Never dry it with a towel or paper towel or tissue, as fibres can interfere with its action. Your spacer should be replaced every 6–12 months.

Visit to a Dental Clinic

Try a routine oral/dental health checkup once in 6 months or a year at best. Your gum may turn into bad condition if you have COPD, especially when you are using a non-spacer inhaler. The fungus or bacteria (bug) in your mouth may travel to your lungs and worsen your COPD. Hence, regular visit to the dental clinic

helps you to maintain your gum/mucosa health and protect from complicated COPD. Inhaler users may have steroid-related complications including inside their oral cavity (a Candida-related mucosa problem or Lichen planus may grow).

Your Mouth May Get Dry: Drink Enough Clean (Safe) Drinking Water

Drink enough clean drinking water. This stops your sputum from getting too sticky and makes chest clearance easier. It also helps your mouth clean. Try to drink 8–10 medium glass of safe drinking water daily. Limit your alcohol drink to very low, alcohol drinking loses your water from your body (make you dehydrated), and that may complicate your COPD.

Break the Habit

Smoking is not only an addiction, but also it is an indicator of a poor lifestyle. Think why you do smoke, and can't stop. You should also not start chewing tobacco such as Tambula/Beeda or Gutkha. They are equally harmful, a cause of mouth cancer (20–30% of all cancers in India). If you can't stop even with your strong determination and willpower, you may consult us.

To break the habit, you must first be aware of why you are smoking and when you do smoke. Keep a smoking diary; break your routine as you started to stop a tobacco. Try and find a new activity to keep you occupied and diverted.

To Stop Your Tobacco Habit, You may Need Nicotine Replacement Therapy (NRT)⁷

You are exposed to nearly toxic 4,000 chemicals available in tobacco. There are 80 cancer-causing chemicals; hundreds of noxious substances and nicotine which make you addicted to tobacco, you may suffer from craving (unpleasant withdrawal symptoms) when you stop tobacco if you are addicted to it. In that case, you better visit an expert or a NRT clinic, if it's available to you.

Nicotine replacement therapy drug is available; you can buy it from pharmacies and also on prescription. It comes in a variety of forms and strengths, e.g., patches, gum, inhalators, micro tabs, and nasal sprays. Always seek the help of your doctor before starting a NRT. In India we have a few NRT products, and NRT gum is available. But before starting a NRT by yourself, you better visit a doctor/dental surgeon who knows about it, otherwise, you may contact us, and we are happy to help you.

Consult a Physiotherapist

To improve your breathing problem and chest clearance, your doctor may refer you to a physiotherapist. He/she will help you to sort out your breathing problem.

Chest Clearance

There is an exercise for clearance of the chest that helps to clear your lung and windpipe if you need this you may consult your doctor.

Breathing Problem at Night

Many people with COPD have breathing difficulties during the night. This can be very frightening and increases your fear, making your breathing problem worse. You may do so if you have such a problem:

- If you wake up breathless, lean forward, e.g., sitting at the edge of the bed and leaning your arms on a bed table.
- Keep a fan by your bed and turn it on when feeling breathless.
- Keep your inhalers by your bed and take your reliever.
- Try and use your breathing control. Try not to force your breath out. This causes more air to get trapped in your lungs.
- Try not to fight your breathing problem. Relax your shoulders, tensing your muscles will only use up your energy and make you more problems breathing.

Importantly

Keep your home dust and smoke-free; avoid cooking in a smoky kitchen.

You note that COPD may complicate your lung and heart system (Cardiovascular system), but it does turn into a cancer.

CONCLUSION

Request

We strongly suggest that if you are suffering from COPD, this educational leaflet will help you. You may contact us if you need further assistance.

DISCLAIMER

This manuscript has been published as a preprint on NITTE University Website (link: <https://absmids.nitte.edu.in/7.%20COPD.pdf>) prior to its formal publication in The British Journal of Translational Global Health, a peer-reviewed journal.

REFERENCES

1. Chronic obstructive pulmonary disease (COPD). Chest heart & stroke Scotland and NHS UK. [online]. Available from: <https://www.chss.org.uk/chest-information-and-support/common-chest-conditions/copd/>. [Last accessed September, 2024].
2. National Institute of Health (NIH). What Is COPD?. [online]. Available from: <https://www.nhlbi.nih.gov/>. [Last accessed September, 2024].
3. European lung foundation (ELF). Chronic bronchitis symptoms. [online]. Available from: <https://europeanlung.org/en/>. [Last accessed September, 2024].
4. Mayo Clinic. About Emphysema. USA. [online]. Available from: <https://www.mayoclinic.org/diseases-conditions/emphysema/symptoms-causes/syc-20355555>. [Last accessed September, 2024].
5. Mayo Clinic. Asthma - Symptoms and Causes. [online]. Available from: <https://www.mayoclinic.org/diseases-conditions/asthma/symptoms-causes/syc-20369653>. [Last accessed September, 2024].
6. NHS. NHS stop smoking services help you quit. [online]. Available from: <https://www.nhs.uk/live-well/quit-smoking/nhs-stop-smoking-services-help-you-quit/>. [Last accessed September, 2024].
7. CHSS. Chest, heart and stroke Scotland. [online]. Available from: <https://www.chss.org.uk/>. [Last accessed September, 2024].