

# *COPD: What Is It?*

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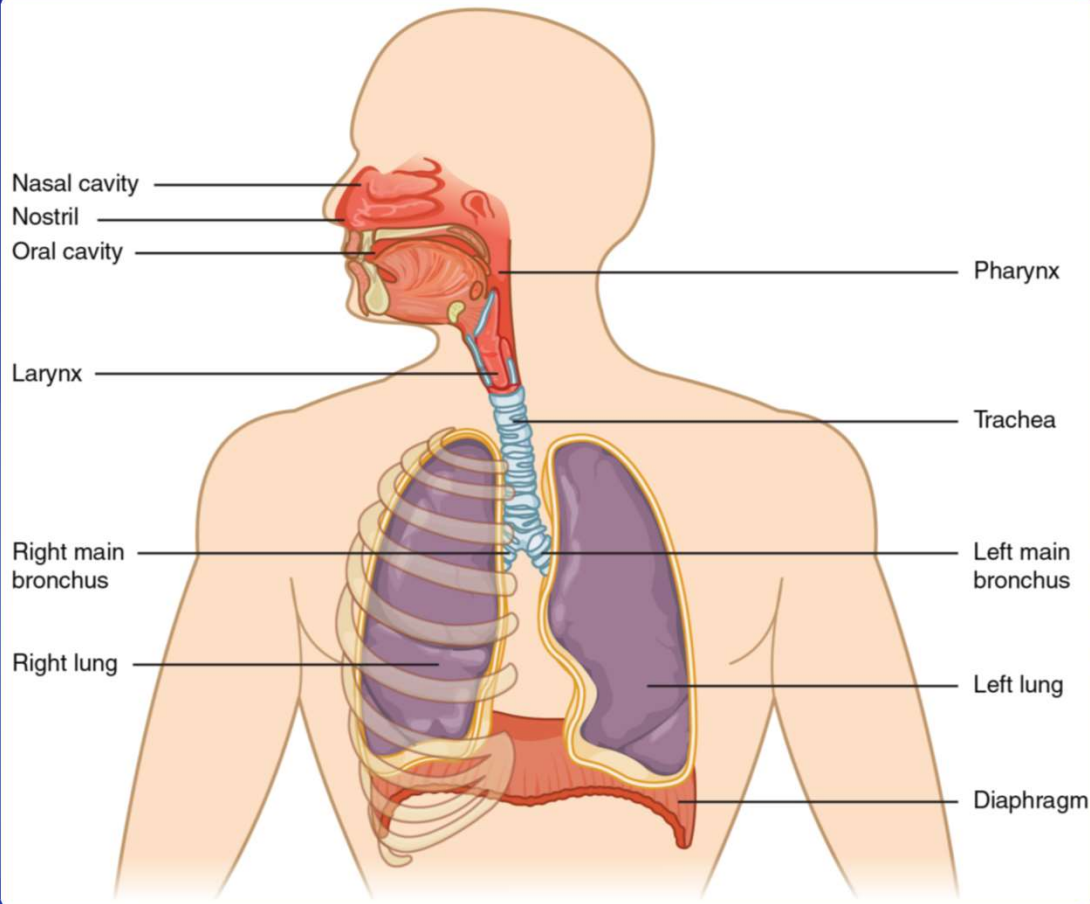
**How Often Do You Think  
About Breathing?**



**For Those With COPD, It Can Be  
A Constant Struggle...**

A photograph of a man and a woman practicing yoga in a park. The man, in the foreground, has a grey beard and is wearing a dark green t-shirt. He has his hands pressed together in a prayer position (Anjali Mudra) and his eyes are closed. The woman, in the background, is wearing a light grey t-shirt and also has her hands in a prayer position. The background shows trees and a fence, suggesting an outdoor setting. A blue rectangular graphic element is located in the top right corner of the image.

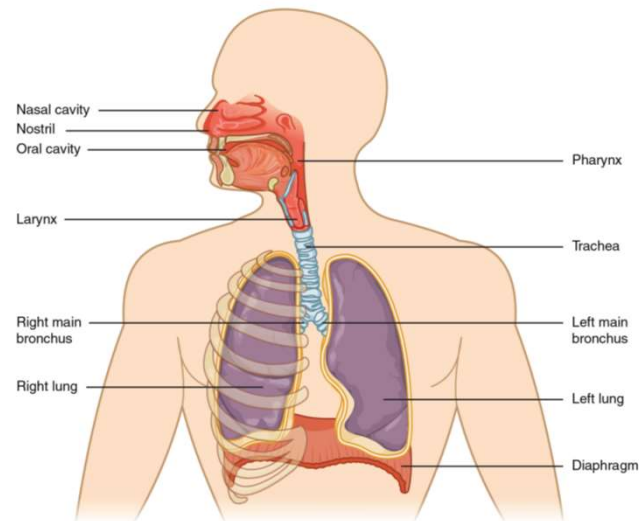
**Learning About Our Lungs Can  
Help Us Keep Them Healthy!**



# The Respiratory System

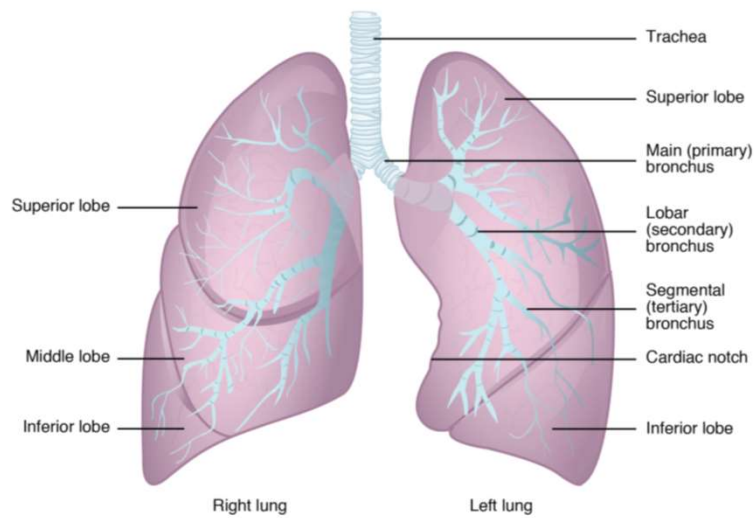
# Function

- ▶ Provides Oxygen
  - ▶ For Energy Production
- ▶ Removes Carbon Dioxide
- ▶ Maintains Acid-Base Balance
- ▶ Non-Vital Functions:
  - ▶ Sensing Odors
  - ▶ Speech
  - ▶ Straining





# Anatomy



## ▶ Divided Into 2 Zones:

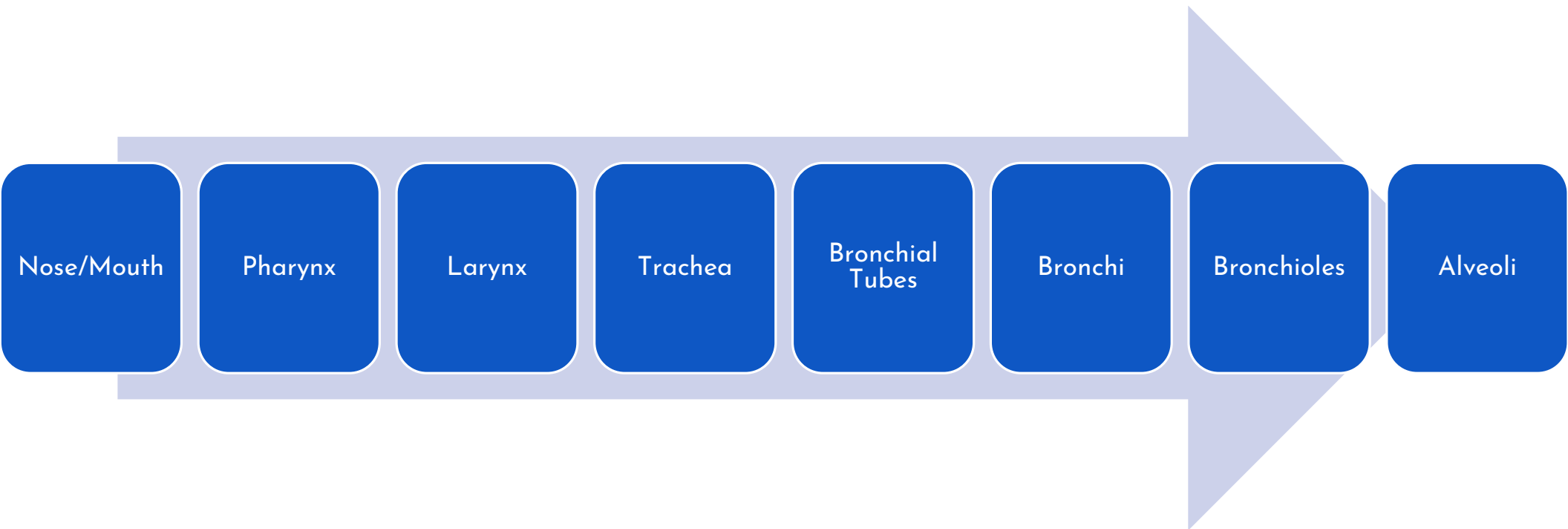
### ▶ Respiratory Zone

- ▶ Responsible For Gas Exchange

### ▶ Conducting Zone

- ▶ Other Roles
- ▶ Air Travels From The Nose, Down The Trachea, And Into The Left/Right Bronchi
- ▶ Collective Term For Multi-branched Bronchi

# Air Pathway

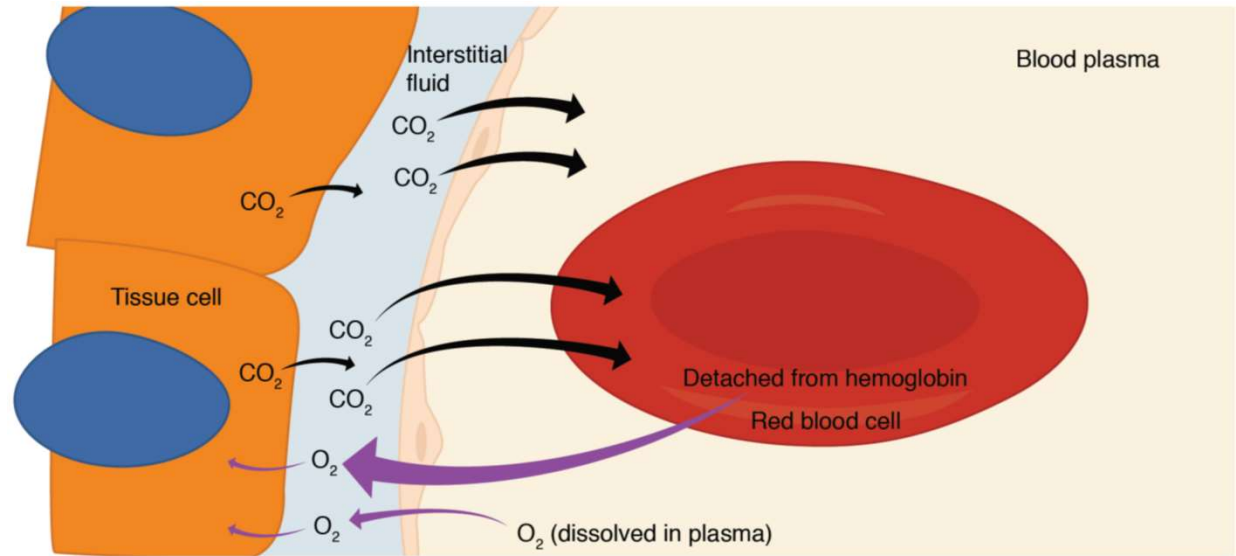


<https://my.clevelandclinic.org/health/body/8960-lungs>



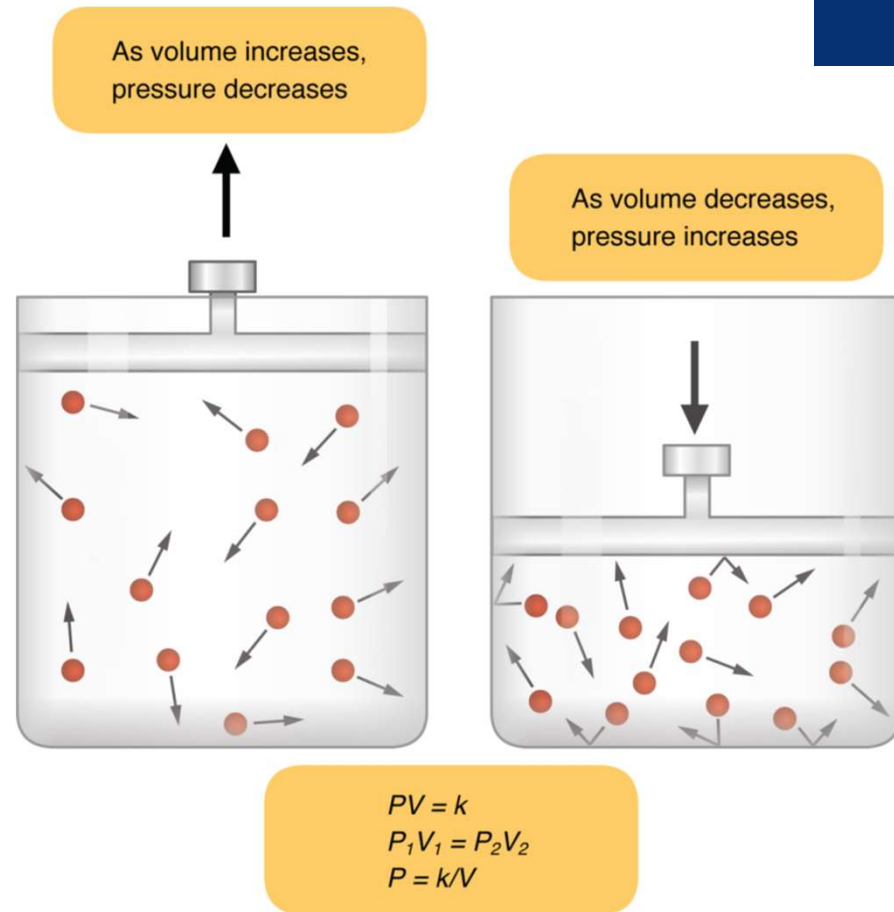
# Anatomy

- ▶ Respiratory Zone
  - ▶ Where Gas Exchange Occurs
  - ▶ Slows Down The Blood Enough For Exchange



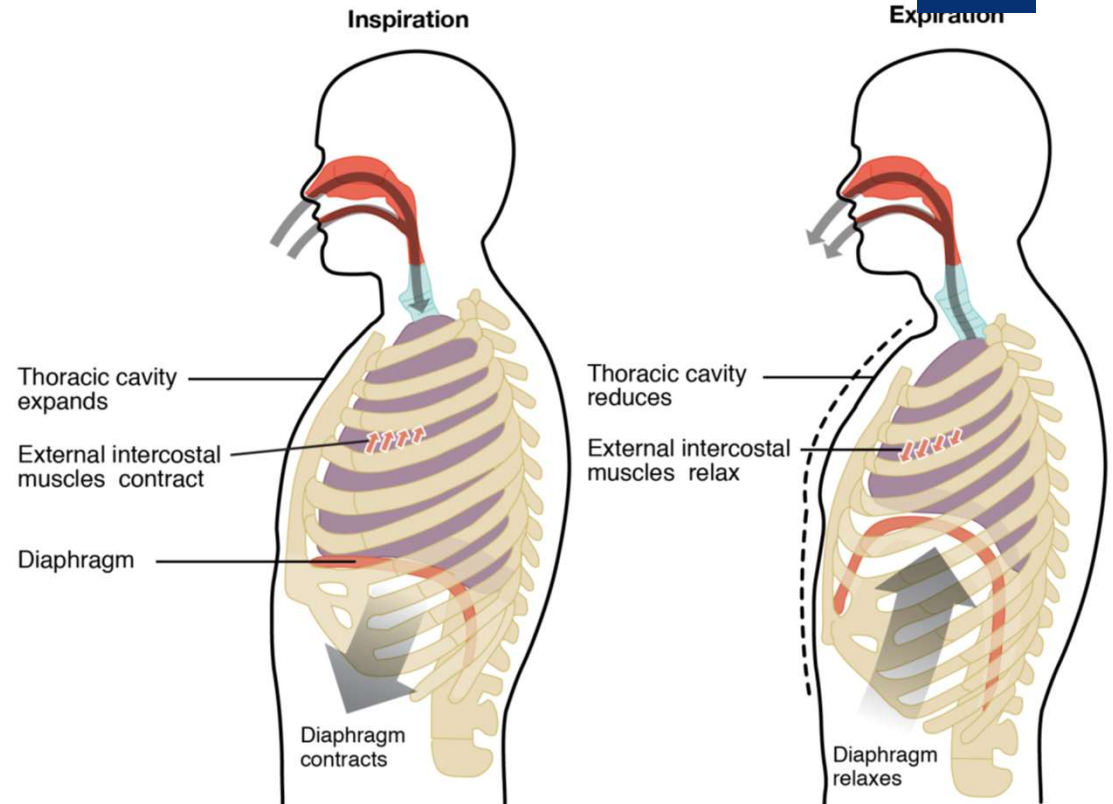
# Mechanism Of Breathing

- ▶ Dependent On:
  - ▶ Physics
  - ▶ Anatomy
- ▶ Physics
  - ▶ Changes In Pressure Allows For Breathing
  - ▶ Explained Through Boyle's Law
- ▶ Anatomy
  - ▶ Elastic Nature Of Tissues Involved
  - ▶ Diaphragm Allows For Change In Pressure



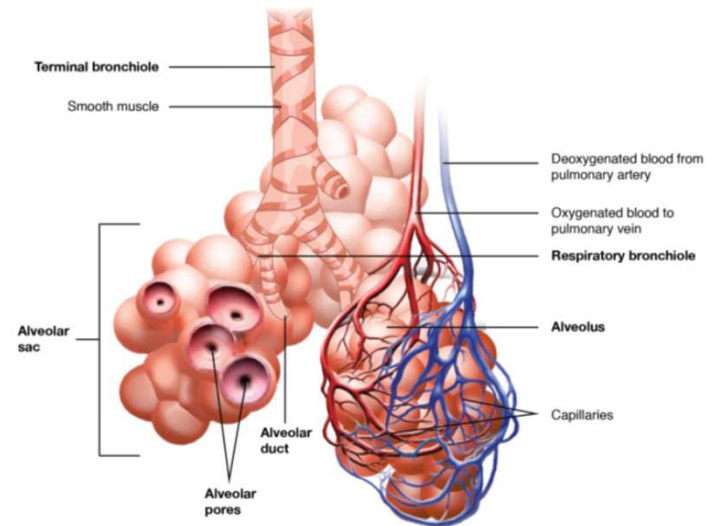
# Factors Affecting Breathing

- ▶ Resistance
  - ▶ Size Of Airways
  - ▶ Rib Cage Compliance
- ▶ Muscle Contractions
- ▶ Posture
- ▶ Nervous System
  - ▶ Monitors Gas Levels And Acidity Levels Of Your Blood (pH)

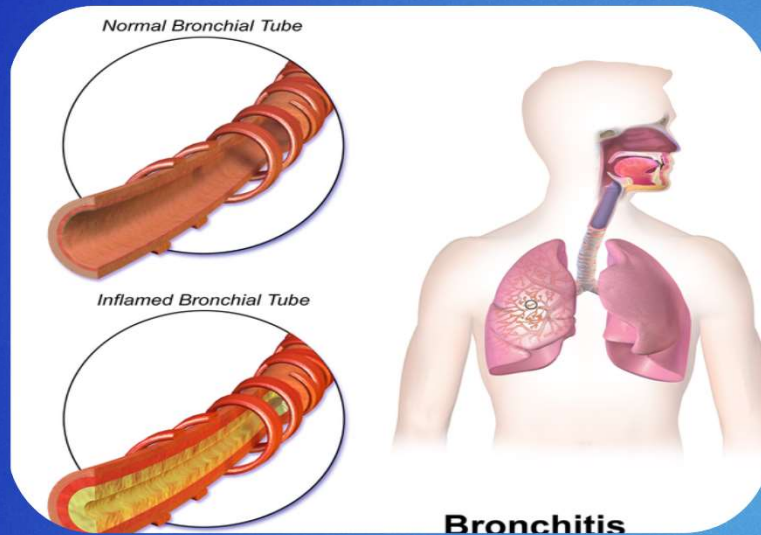


# Chronic Obstructive Pulmonary Disease

- ▶ Umbrella Term
  - ▶ Causes Obstructed Airflow
- ▶ Includes Various Conditions:
  - ▶ Chronic Bronchitis, Emphysema...
- ▶ Symptoms Include:
  - ▶ Shortness Of Breath, Especially During Physical Activities
  - ▶ Wheezing
  - ▶ A Chronic Cough
  - ▶ Lack Of Energy
  - ▶ Swelling In Ankles, Feet Or Legs

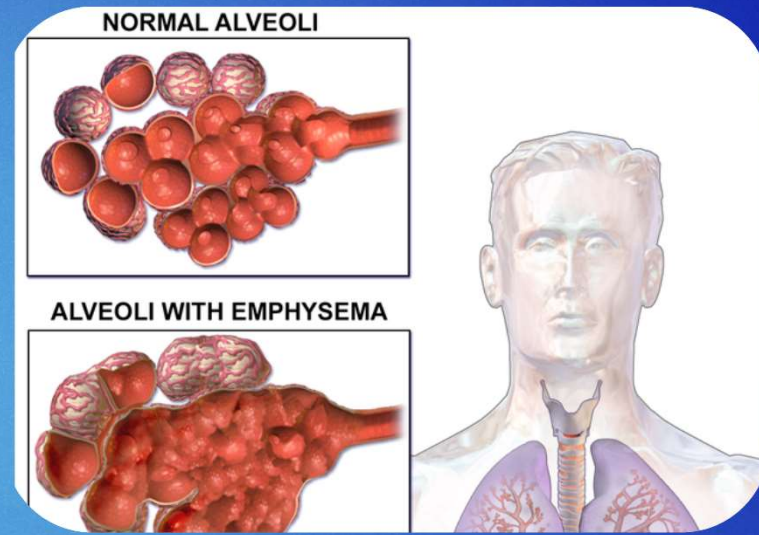


# Chronic Obstructive Pulmonary Disease



## Chronic Bronchitis

- Inflammation Of The Lining Of The Bronchial Tubes
- Causes Narrowing Of Airway



## Emphysema

- The Alveoli Are Destroyed As A Result Of Damaging Exposure



# Impacts On Daily Life



- ▶ Reduced Endurance
  - ▶ Climbing Stairs
  - ▶ Walking
  - ▶ Household Chores
- ▶ Difficulties To Maintain Employment
- ▶ May Require Oxygen Tanks
  - ▶ Can Restrict Where You Are Able To Go
- ▶ Reduced Social Activities
- ▶ Can Impact Mental Health



# Preventative Measures



- ▶ Quit Smoking
  - ▶ Biggest Known Factor In Lung Diseases
- ▶ Reduce Exposure To Secondhand Smoke
  - ▶ Including Fireplaces
- ▶ Reduce Exposure To Other Irritants
  - ▶ Dust
  - ▶ Chemicals
  - ▶ Infections
- ▶ Talk To Your Doctor
- ▶ Exercise!

# Treatment Options

- ▶ Quit Smoking
- ▶ Medications
  - ▶ Dilators
  - ▶ Steroids
  - ▶ Antibiotics
- ▶ Lung Therapy
  - ▶ Supplemental Oxygen Therapy
  - ▶ Exercise
  - ▶ Healthy Eating
  - ▶ Controlled Breathing/Clearing Airways
- ▶ Surgery
  - ▶ Transplants
  - ▶ Removal Of Damaged Tissues



<https://www.cdc.gov/copd/basics-about.html>

# My COPD Checklist



Keep this checklist and your med-list handy to review with your health care provider to improve the management of your COPD.

- I've had my COPD diagnosis confirmed with a breathing test (spirometry)
- I will review my symptoms of COPD with my health care provider
- I will review the symptoms of a COPD flare up (exacerbation), and report if I had any flare ups or if I have used my COPD action plan
- I will discuss ways to prevent and manage COPD flare-ups
- I will review my current inhaler routine and ensure I am using them correctly
- I will discuss other treatment options that may improve my COPD (exercise, smoking cessation, diet, vaccination, pulmonary rehab, referral to specialist/certified respiratory educators, respiratory therapist)



Want more information on COPD? Scan the QR code to learn more.

CA-6343

# Checklist