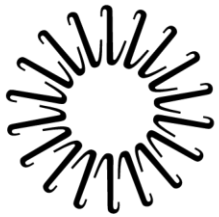
# Lung Disease



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# Obstructive and Restrictive Lung Diseases

**Obstructive Lung Disease**

- Stale air gets trapped in the Lungs

- Examples:
  - Asthma
  - Emphysema
  - Bronchitis
  - Cystic Fibrosis

  Bottom line:

  You can't get the air out…..

**Restrictive Lung Disease**

- The Lungs can't inflate properly

- Examples:
  - Pulmonary Fibrosis
  - Rib cage changes-scoliosis
  - Neuromuscular diseases

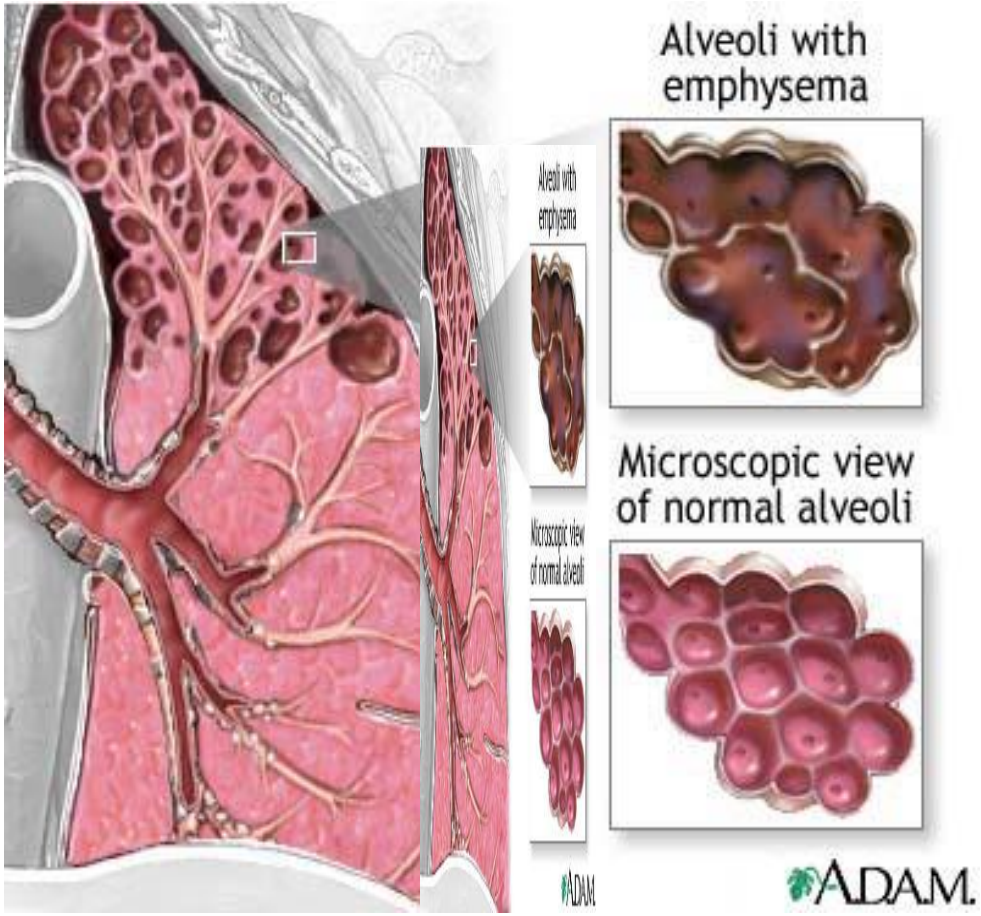
  Bottom Line:

  You can't get the air in….

# Obstructive Lung Disease: COPD

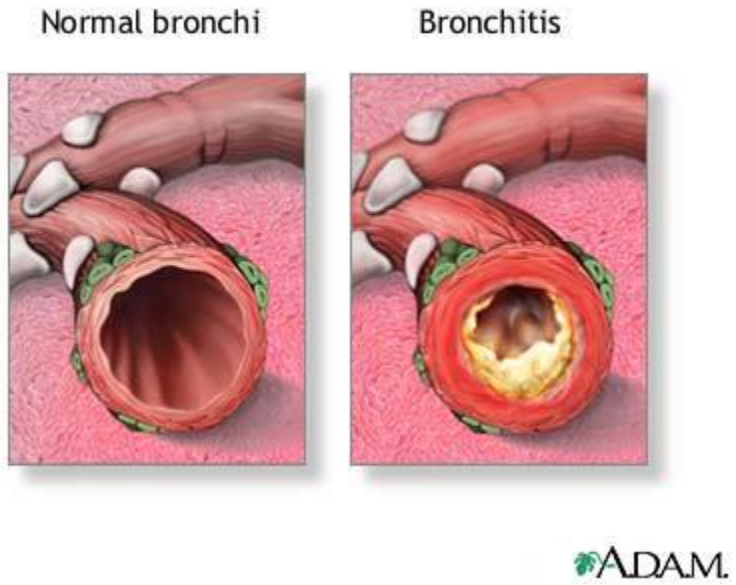
| | | |
|---|---|---|
| • Chronic | = | • Ongoing Problem |
| • Obstructive | = | • Stale air trapped in lungs |
| • Pulmonary | = | • Refers to the lungs |
| • Disease | = | • illness |

# COPD: Emphysema




- The alveoli, which are like small air bubbles, break down.
- Air gets trapped in the lungs making people feel breathless

# COPD: Chronic Bronchitis

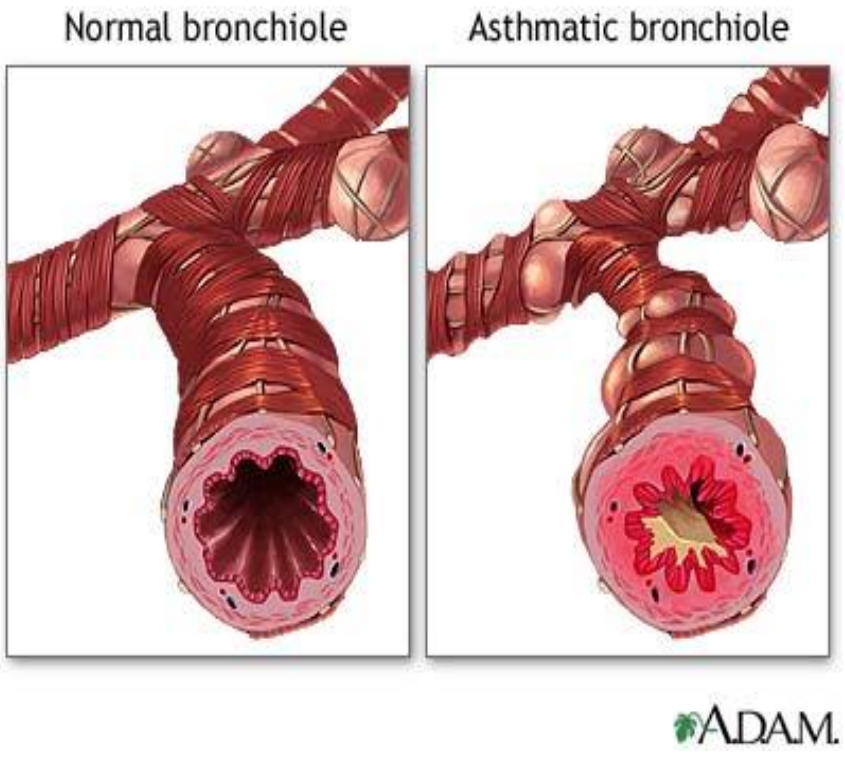



- As the airways get irritated:

1. The passage for air to flow gets smaller
2. More mucous builds up in the passage

# Obstructive Lung Disease:  Asthma

- Little muscles around the airways can go into a spasm and squeeze the airways.
- This causes an asthmatic attack
- This can happen with exposure to cold air, strong scents, and even excessive exercise.

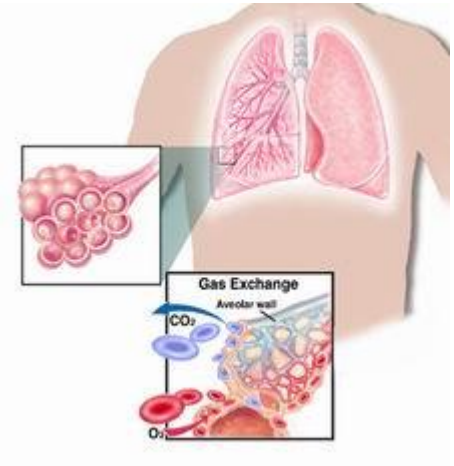


# Treatment for Obstructive lung diseases

- While each of the diseases affect the lungs differently, the treatments are focused on:
  - Opening up the airways
  - Keeping the inflammation down
  - Getting rid of excess mucus.

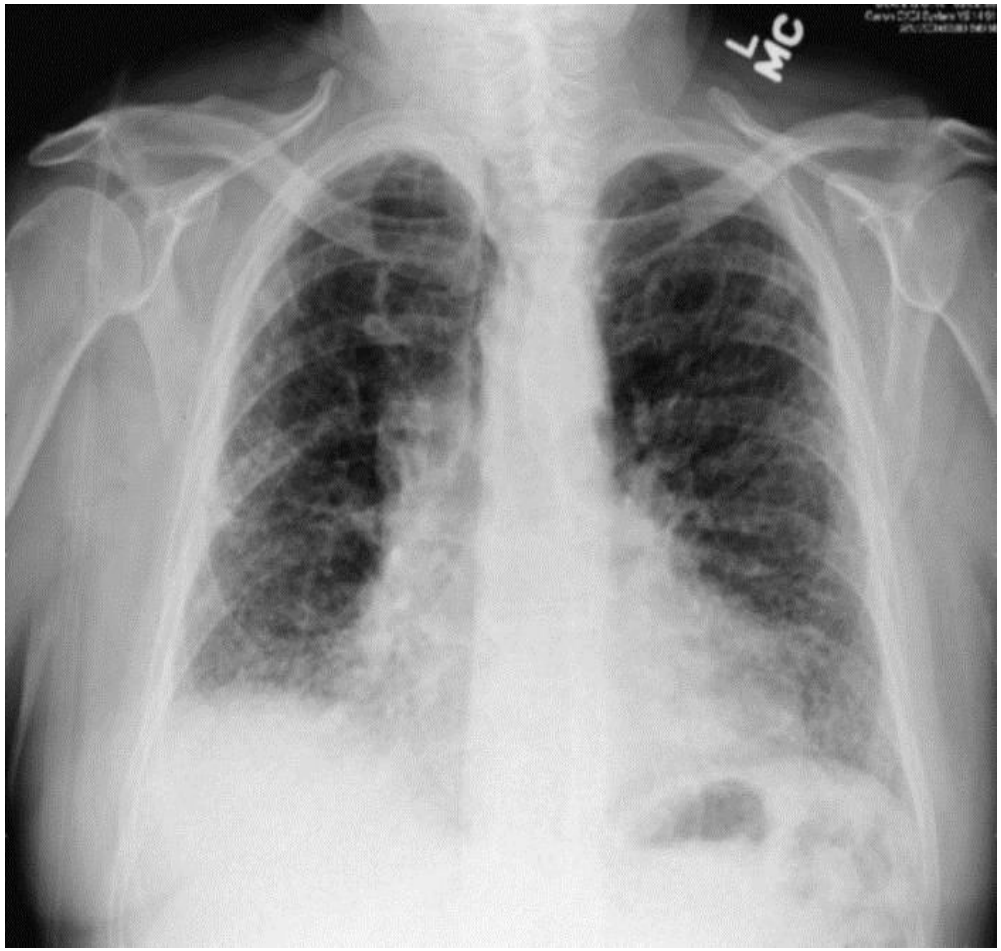

- Work on pacing skills and use of pursed lip breathing to help get rid of that stale air trapped in the lungs
- Exercise to keep your body strong
- Use oxygen if needed to keep you safe while exercising if your oxygen level drops below 88%
- Monitor your symptoms and call the doctor right away if any changes!

# Restrictive Lung Disease: Pulmonary Fibrosis (IPF)




- The lung tissue gets scarred and thickened.
- This makes it harder for the oxygen to get from your lungs into your bloodstream.
- IPF can be caused by chemical exposure and other illness, but sometimes it happens without a specific reason.

# Restrictive Lung Disease: Pulmonary Fibrosis (IPF)



- Work on pacing skills to keep oxygen levels at least 88-90%.
- You may need to use extra oxygen to keep your oxygen level high enough for safe exercise and activity

# Restrictive Lung Disease: Scoliosis

Normal vs. Scoliosis

- Because of the curve of the spine and the changes in the rib cage, the lungs cannot expand fully.
- Add posture exercises to your program along with your aerobic routine

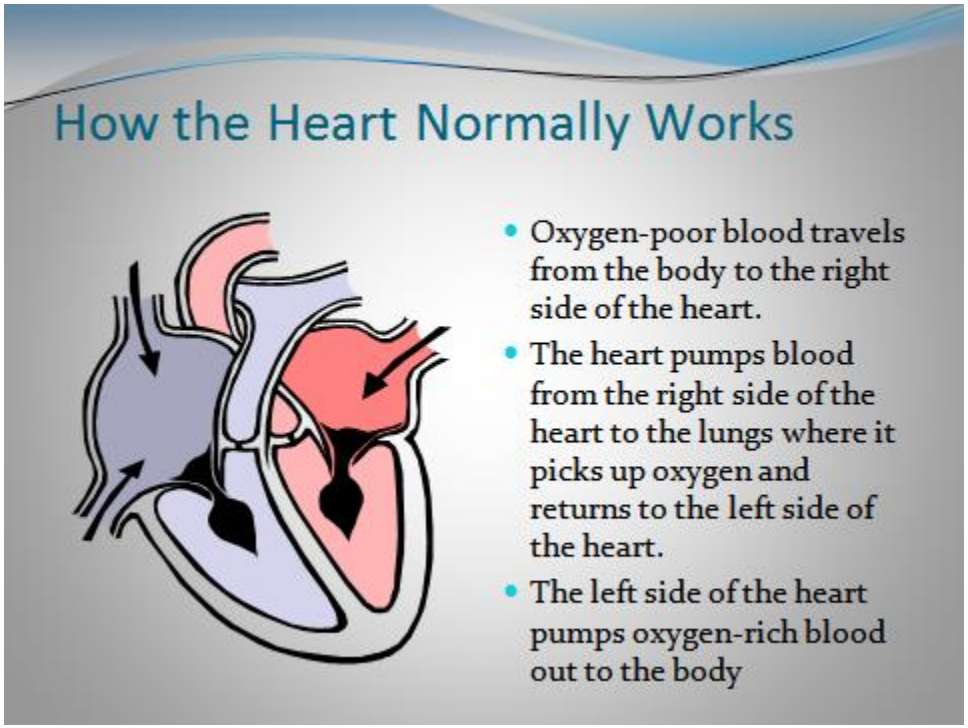
# Sarcoidosis

- Pulmonary Sarcoidosis- a disease caused by small areas of inflammation that can appear in the alveoli, bronchioles or lymph nodes.

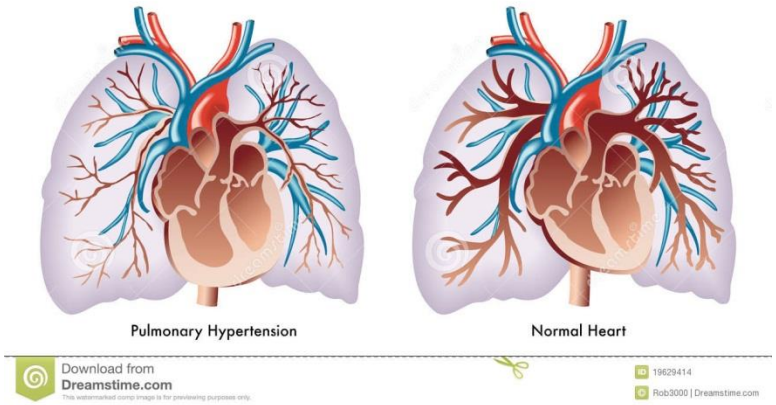
- The lungs can become stiff and may not be able to hold as much air as healthy lungs.

- In serious cases, sarcoidosis can cause scar tissue in the lungs, which can affect the lungs' ability to move oxygen into the bloodstream

# Pulmonary Hypertension



# Pulmonary Hypertension-High Blood Pressure in the arteries that go to your lungs




- Symptoms can include:
  - Shortness of breath with activity
  - Fatigue
  - Dizziness
  - Raynaud's Disease- decreased circulation in the tiny blood vessels.
  - Chest Pain

# Pulmonary Hypertension

- What to watch for while exercising:
  - Over-exercise
  - Symptoms such as severe shortness of breath, pain, dizziness
  - Do not let your oxygen level drop too low (below 90%)

# Lung Cancer

- Lung Cancer-A portion of the lung may be removed due to a malignant tumor
- Causes: smoking, radon exposure, other chemicals, genetics

- You can safely exercise after recovering from lung cancer within certain guidelines.
  - Keep your oxygen level at least 88-90%
  - Watch your heart rate
  - Avoid over fatigue- especially if you are exercising while receiving any treatment such as radiation or chemotherapy
  - Work to your tolerance level