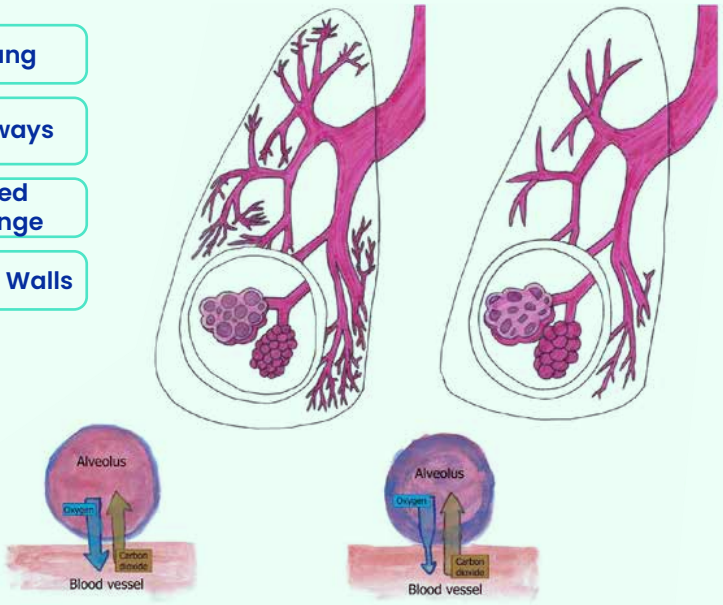
THE FUTURE OF IPF:
BRIDGING SCIENCE AND CLINICAL PRACTICE

OVERVIEW & INTRODUCTION:

The interstitial lung diseases (ILDs) include a group of parenchymal lung diseases that can be distinguished by different degrees of inflammation and fibrosis. Some of these ILDs may occur due to known causes including drugs, autoimmune connective tissue disease, hypersensitivity to inhaled organic antigens, or sarcoidosis, while other ILDs are of unknown causes including idiopathic interstitial pneumonias (IIPs).

Idiopathic pulmonary lung disease (IPF) is considered the most common form of idiopathic interstitial pneumonia. It can be identified by irreversible chronic scarring of the lungs that reduces the ability of the lungs to supply oxygen to the body leading to shortness of breath and commonly causing respiratory failure. It is a chronic, progressive, irreversible and usually lethal disease.

- Healthy Lung
- Normal Airways
- Unimpeded Gas Exchange
- Thin Alveolar Walls



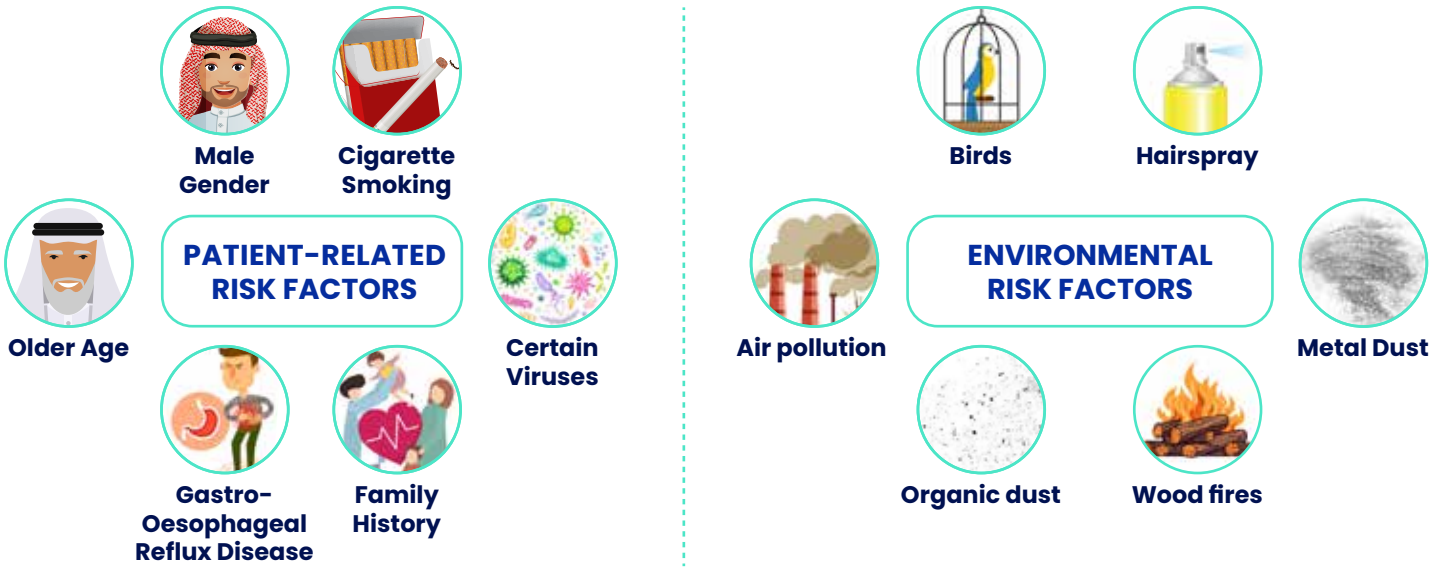
- IPF LUNG
- Disrupted Lung Architecture
- Inflammation
- Dilated Bronchi
- Poor Gas Exchange
- Irregular, Distorted Air Sacs
- Scarred, Thickened, Fibrotic Alveolar Walls

INCIDENCE OF IPF:

The incidence of IPF increases with age and is generally higher in men than women. A study from Saudi Arabia found that 23% out of 330 ILD patients have IPF.

RISK FACTORS FOR IPF:

Although the etiology of IPF is unknown, the epidemiological evidence suggests several risk factors including the following:



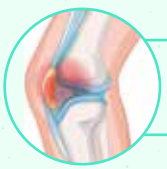
SIGNS & SYMPTOMS:

IPF has varying symptoms among patients.

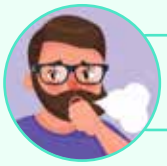
The most common symptoms include the following:

Dyspnea on exertion that gets worse over time

Inspiratory crackles on lung examination



Aching muscles and joints



A dry cough that does not improve

Extreme fatigue

Symptoms of IPF are commonly mistaken for those of cardiac disease, emphysema, bronchitis, asthma, or COPD.

COMPLICATIONS:

High blood pressure in the lungs

Right-sided heart failure

Respiratory failure

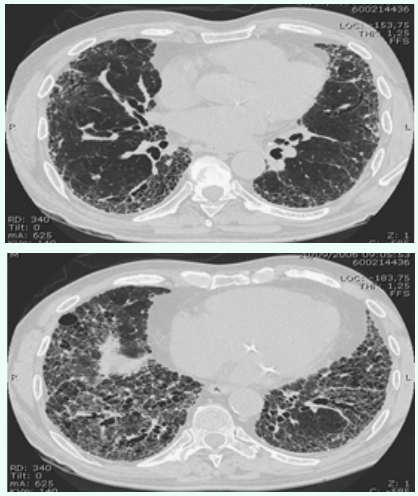
Lung cancer

Other lung problems

DIAGNOSIS:

IPF diagnostic procedures include the following:

- Taking the patient history to exclude other known causes of ILDs.
- Performing high-resolution computed tomography (HRCT) of the chest to detect the characteristic patterns of usual interstitial pneumonia (UIP).
- If HRCT does not contain significant patterns of UIP, a histologic diagnosis through surgical lung biopsy may be required.



TREATMENT:

Currently, IPF cannot be cured, but there are different treatments that may control the symptoms and decrease IPF progression rate. These treatment approaches include:

- Doing pulmonary rehabilitation exercises.
- Breathing oxygen through a mask.
- Administration of antifibrotic medications such as nintedanib and pirfenidone.