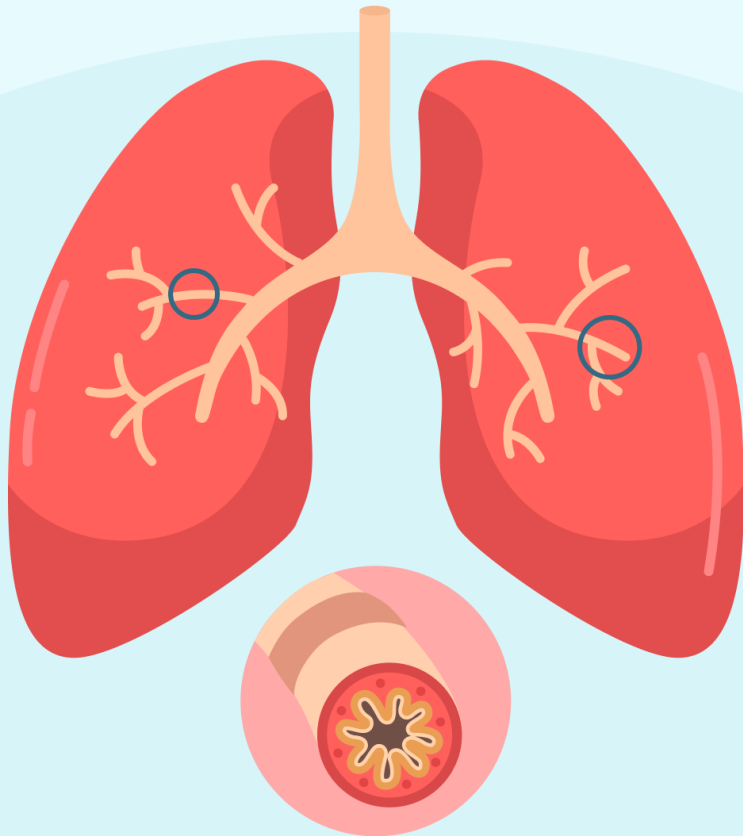




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COPD

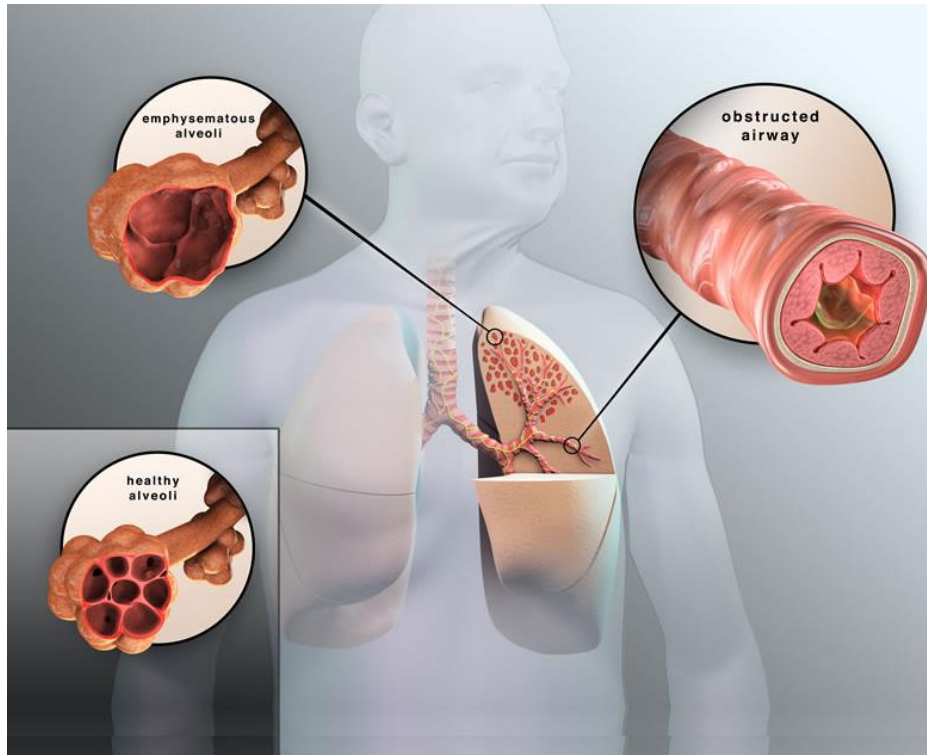


CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

Target Group: Public Health and Social Care Professionals

Definition

- COPD is a progressive chronic lung disease that affects airflow and breathing, characterised by persistent respiratory symptoms and long-term airflow limitation. It includes chronic bronchitis and emphysema as the main disease components and is most caused by long-term exposure to harmful gases, particularly tobacco smoke. Although COPD is irreversible, it can be managed through appropriate treatment and lifestyle changes to help slow progression and improve quality of life (Yanagisawa and Ichinose, 2018; Soriano et al, 2018).



(Breethfree, 2025)

Symptoms

- Persistent, long-term cough often referred to as a “smoker’s cough” (Miravitlles and Ribera, 2017).
- Shortness of breath (dyspnoea), especially during physical activity or exertion (Vogelmeier et al, 2020).
- Production of thick mucus or sputum that may increase over time (Miravitlles and Ribera, 2017).
- Wheezing, chest tightness, or a feeling of restricted breathing (Vogelmeier et al, 2020).
- Frequent chest infections or acute exacerbations that worsen symptoms (Vogelmeier et al, 2020).
- Fatigue, reduced stamina, and difficulty carrying out daily activities (Miravitlles and Ribera, 2017).

Symptoms of COPD



Shortness of breath



Chronic cough



Wheezing



Fatigue



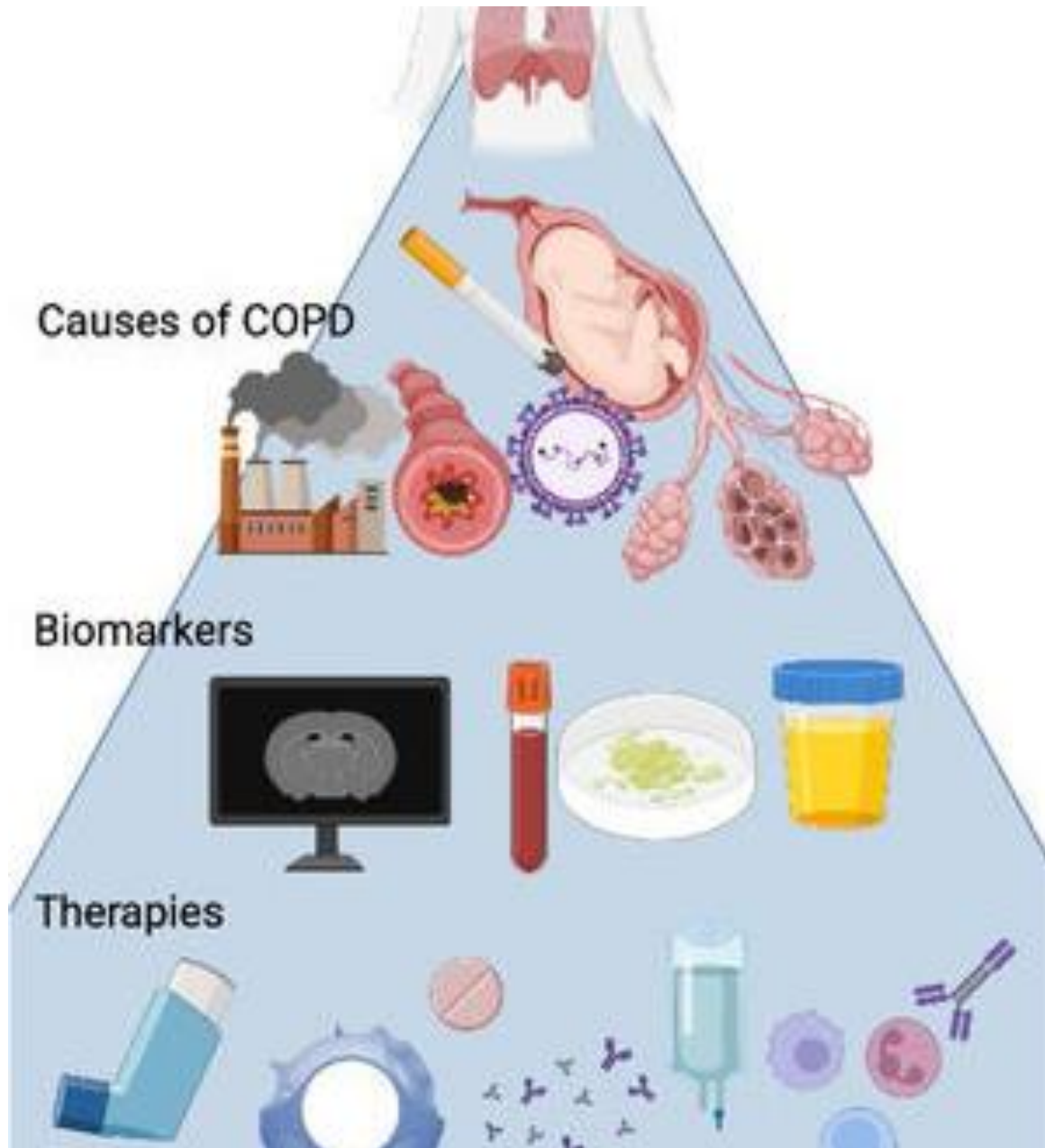
Weight loss



Excess phlegm



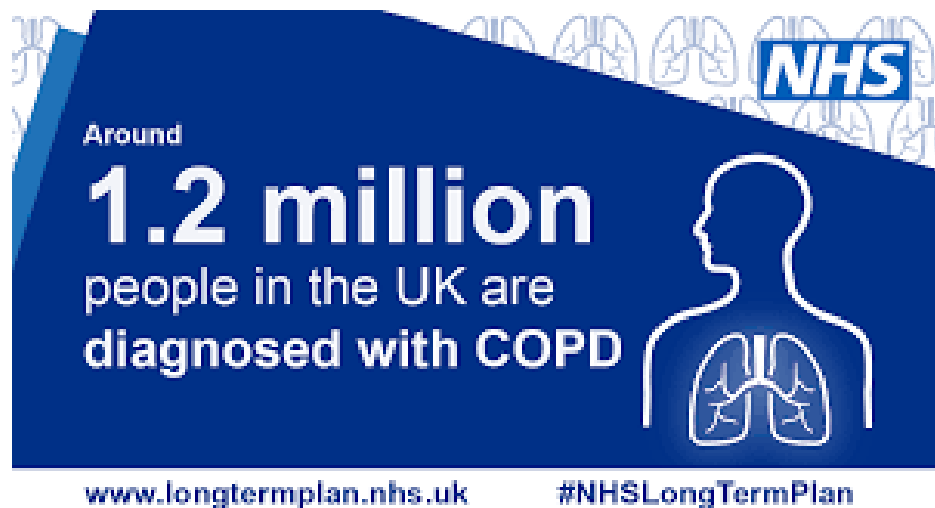
Tightness in the chest



(Breethfree, 2025)

Aetiology (Causes)

- Long-term cigarette smoking remains the strongest and most common risk factor (Ralalage and Hurst, 2023)
- Exposure to environmental pollutants, occupational dust, fumes or chemicals (Cheng and Hurst, 2020)
- Second-hand smoke exposure in shared living or social environments (Ralalage and Hurst, 2023).
- Rare genetic predisposition: Alpha-1 antitrypsin deficiency, increasing susceptibility (Cheng and Hurst, 2020).
- Impaired lung development or repeated childhood respiratory infections (Cheng and Hurst, 2020).



(NHS, 2019)

UK Prevalence

- Around 1.2 million people are diagnosed with COPD in the UK, but estimates suggest up to 2.2 million may be living with the condition, indicating a significant number remain undiagnosed (NICE, 2018).
- COPD affects approximately 4–5% of adults over 40, with prevalence rising sharply in people aged 50 and above (Asthma Lung UK, 2022).
- Rates are higher in individuals from lower socioeconomic groups, and smokers or former smokers account for nearly 90% of diagnosed cases (Asthma Lung UK, 2022).

Worldwide Incidence

Recognised as one of the leading global causes of morbidity and mortality. Over 3.5 million people are estimated to be living with COPD worldwide (WHO, 2024).

Higher burden in low- and middle-income countries due to pollution and tobacco use (WHO, 2024).

Expected to rise further and remain among the top three causes of death globally (WHO, 2024).

Economic Burden

COPD places a major financial pressure on the NHS, costing over £1.9 billion per year due to hospital admissions, medications and long-term management (Tachkov et al, 2017).

Reduced productivity, increased sick leave and early retirement result in significant economic loss and decreased workforce capacity (Tachkov et al, 2017).

Individuals may also experience financial strain due to reduced income and increased healthcare-related expenses (Iheanacho et al, 2020).

Social Burden

Persistent symptoms such as breathlessness, fatigue and limited mobility can reduce independence and restrict participation in daily and social activities (Iheanacho et al, 2020).

Many individuals may experience emotional challenges, including isolation, frustration and reduced quality of life (Iheanacho et al, 2020).

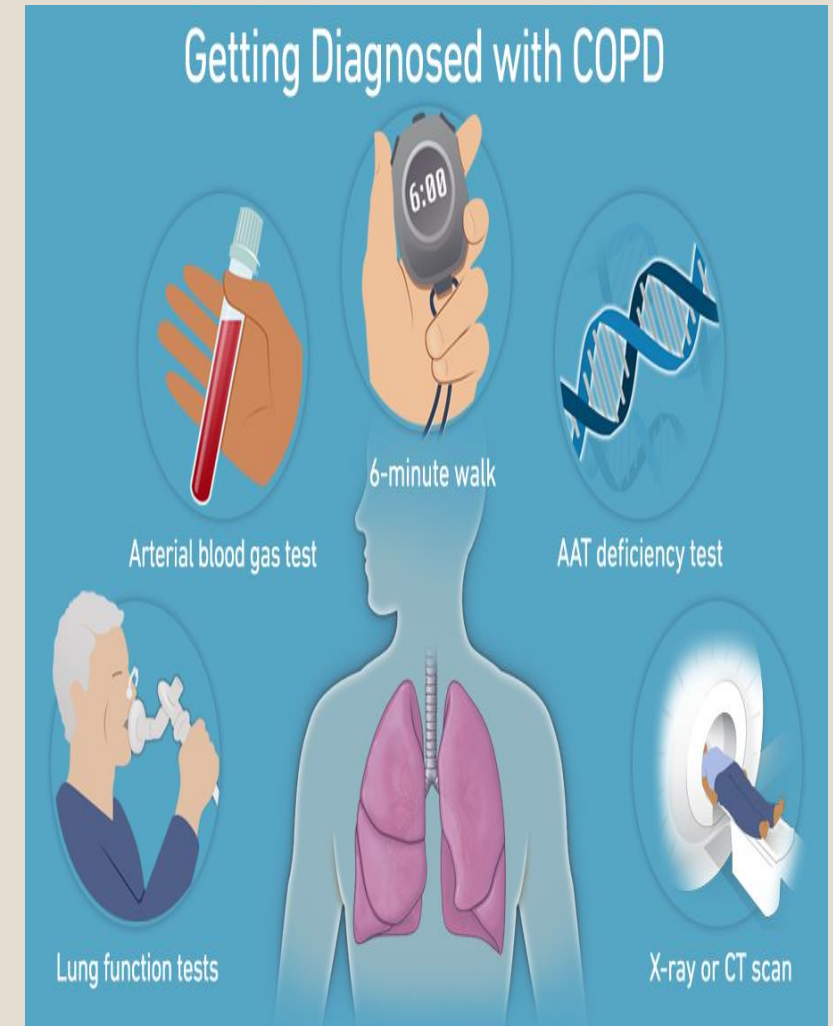
Family caregivers provide substantial unpaid support, increasing emotional and physical strain (Tachkov et al, 2017).

Initial Assessment

- A detailed medical history is taken, including smoking exposure, symptoms, and occupational or environmental risk factors (Gentry, 2017).
- A physical examination assesses breathing patterns, chest sounds and oxygen saturation to identify clinical signs of COPD (Fazleen and Wilkinson, 2020).
- Initial assessment supports personalised care planning and guides ongoing monitoring and treatment (Fazleen and Wilkinson, 2020).

Diagnosis of COPD

- Spirometry is the key diagnostic test, confirming airflow obstruction and reduced lung function (Fazleen and Wilkinson, 2020).
- Imaging, such as a chest X-ray or CT scan, is used to exclude other respiratory conditions or complications (Gentry, 2017).
- Assessment tools, including the MRC Dyspnoea Scale and COPD Assessment Test (CAT), support diagnosis and help determine severity (Fazleen and Wilkinson, 2020).



(Temple Health, 2025)

Continuity of Care Model

- **Relational Continuity:** Builds long-term, trusted relationships between the patient and the healthcare team, improving communication, confidence, and engagement in self-management (Medves et al, 2022; Lee et al, 2024).
- **Informational Continuity:** Ensures consistent sharing of clinical history, treatment plans, and assessments across services, enabling seamless and personalised care (Roos et al, 2022).
- **Management Continuity:** Provides coordinated, ongoing support through structured follow-up, pulmonary rehabilitation, medication review, and monitoring to prevent exacerbations and hospital admissions (Lee et al, 2024).

Figure 1: Types of continuity



(Morecambe Bay, 2025)

Treatment

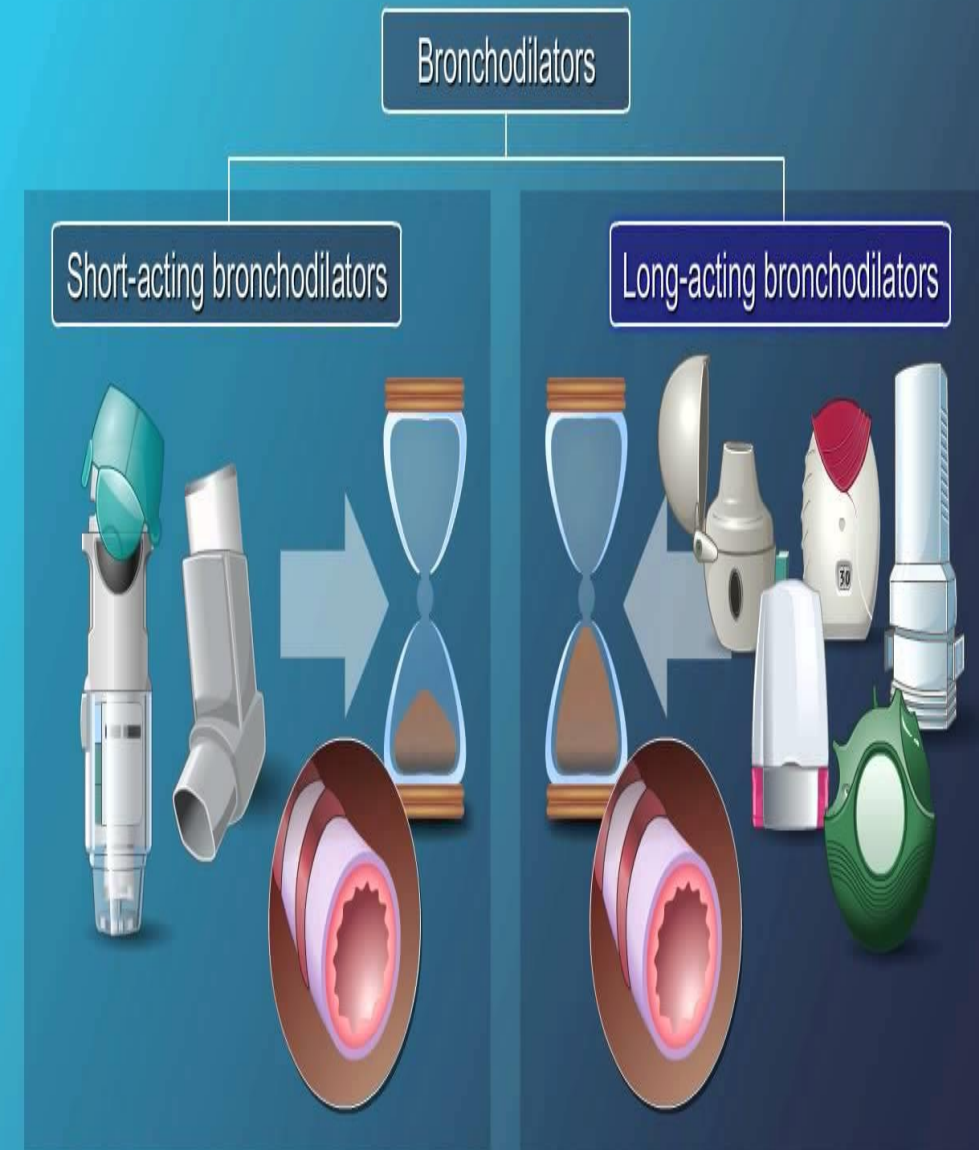
According to NICE Guidelines (2019).....

- **Smoking Cessation:** First-line intervention, including behavioural support and pharmacological aids such as NRT, varenicline, or bupropion.
- **Vaccination:** Annual influenza vaccine and pneumococcal vaccination to reduce risk of infection-related exacerbations.

Bronchodilator Therapy:

- Short-acting bronchodilators (SABA/SAMA) for relief of breathlessness or intermittent symptoms.
- Long-acting bronchodilators (LABA/LAMA) for maintenance therapy in symptomatic patients.

Medical interventions for COPD: Bronchodilators



Treatment

- **Inhaled Corticosteroids (ICS):** Recommended only when exacerbations are frequent, or eosinophil count is elevated (Calverley, 2019).
- **Pulmonary Rehabilitation:** Structured, supervised exercise and education programmes to improve physical function and symptom control (Lewis et al, 2020).
- **Long-Term Oxygen Therapy (LTOT):** For patients with chronic hypoxaemia confirmed through blood gases (Lewis et al, 2020).
- **Exacerbation Management:** Use of oral corticosteroids and/or antibiotics guided by symptom severity and clinical need (Calverley, 2019).

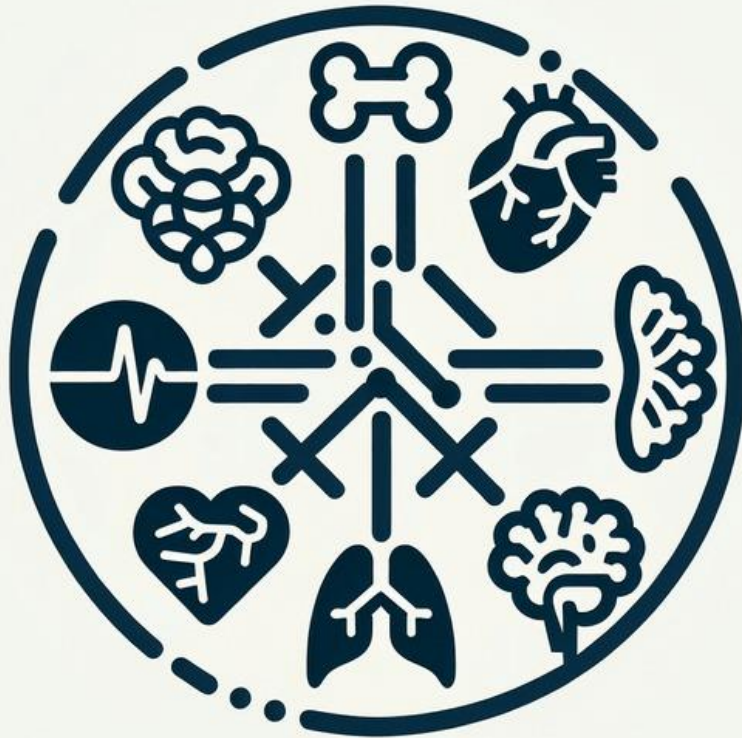
Comorbidity

COPD commonly coexists with other chronic conditions, including:

- Cardiovascular disease (hypertension, heart failure)
- Anxiety and depression due to breathlessness and lifestyle limitations
- Osteoporosis linked to steroid use and immobility
- Diabetes due to inflammation and risk factors
- Lung cancer as a shared smoking-related risk factor

Comorbidities complicate treatment and worsen health outcomes

(Barnes, 2017; Raherison et al, 2018)



(Shutterstock, 2025)

Prevention

- Stopping smoking and avoiding tobacco exposure remains the most effective prevention (Halpin et al, 2017).
- Workplace regulations to limit exposure to dust, fumes and chemicals (Scoditti et al, 2019).
- Improving air quality through public health and environmental action (Halpin et al, 2017).
- Vaccinations help prevent respiratory infections that worsen COPD (Halpin et al, 2017).
- Community awareness campaigns to encourage early screening and symptom recognition (Halpin et al, 2017).

Co-Productive Care

Skills

- **Shared Decision-Making:** Encourages patients to actively participate in planning their care, ensuring treatment aligns with their goals and confidence levels (Cramm and Nieboer, 2016).
- **Accessible Communication:** Uses plain, clear language and adapts explanations to match individual health literacy, ensuring patients understand treatment plans and self-management (Hardy and Sumner, 2018).

Values

- **Respect for Patient Values:** Recognises cultural beliefs, personal preferences, and life priorities, ensuring care is meaningful and tailored to the individual (Hardy and Sumner, 2018).
- **Empathy and Compassion:** Demonstrates understanding and sensitivity, helping build trust so patients feel comfortable sharing symptoms, challenges, or emotional concerns (Cramm and Nieboer, 2016).

Behaviours

- **Supporting Autonomy:** Actively promotes confidence and self-efficacy, encouraging individuals to take ownership of their condition, lifestyle adjustments, and self-management strategies (Cramm and Nieboer, 2016).

Self-Management Support

- **Patient Activation:** Helps patients build the knowledge, confidence, and motivation needed to manage COPD symptoms and treatment independently (Cannon et al, 2016).
- **Motivational Coaching:** Encourages positive behaviour change such as stopping smoking, increasing physical activity, or improving medication adherence (Bringsvor et al, 2018).
- **Self-Management Education:** Teaches practical skills like correct inhaler use, breath control techniques, symptom monitoring, and action plans for flare-ups (Cannon et al, 2016).
- **Shared Decision-Making:** Ensures treatment plans are co-created, reflecting both clinical evidence and what matters most to the patient (Bringsvor et al, 2018).
- **Personalised Care Planning:** Involves setting achievable patient-focused goals such as improving walking distance, reducing breathlessness, or maintaining daily routines (Cannon et al, 2016).
- **Social Prescribing and Peer Support:** Connects individuals with community resources such as pulmonary rehabilitation, exercise classes, counselling, and peer groups to support wellbeing and reduce isolation (Bringsvor et al, 2018).

Personalised Care

- **Person-Centred Focus:** Moves beyond symptoms and diagnosis to understand the patient's lived experience, routines, preferences, and support networks (Wouters et al, 2018).
- **Holistic Assessment:** Considers factors such as social support, housing, mental health, smoking status, and mobility when designing care (Fitting, 2018).
- **Integrated Care Pathways:** Improves links between hospital specialists, primary care teams, and community services to prevent fragmentation (Franssen et al, 2019).
- **Promotes Independence:** Encourages self-management and supports individuals in maintaining function, confidence, and wellbeing (Fitting, 2018).
- **Ongoing Review and Goal Setting:** Care plans are regularly updated based on progress, changing needs, and patient priorities (Wouters et al, 2018).
- **Evidence-Based Self-Management Education:** Ensures patients receive structured education on symptom monitoring, inhaler technique, exacerbation plans and lifestyle changes, aligning with evidence-based self-management principles (Franssen et al., 2019).

Summary

- COPD remains a major global health issue with preventable risk factors
- Early identification and evidence-based treatment improve quality of life
- NICE guidelines emphasise structured long-term management, including rehabilitation
- Person-centred care, self-management and co-productive approaches are essential to improving independence and health outcomes

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THANK YOU