

COMMUNITY CARE AND MANAGEMENT OF LONGER-TERM CONDITIONS - ASSESSMENT 1

Asthma Booklet

Programme: MSc Public Health and Social Care in Practice

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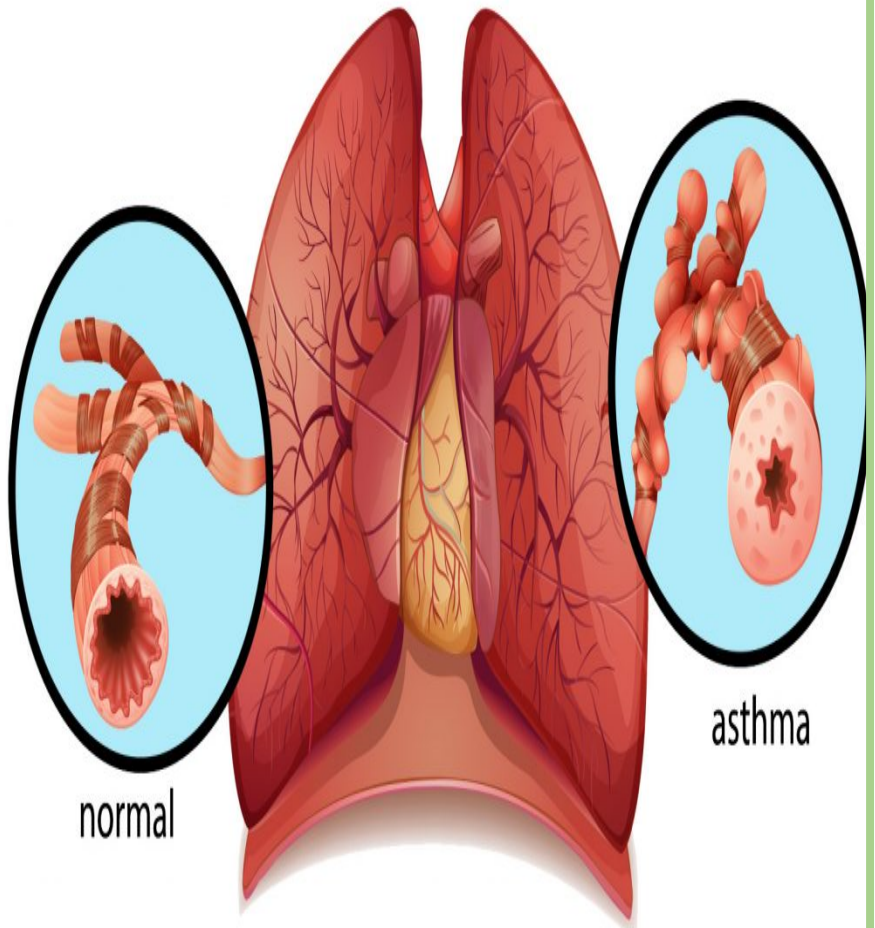
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ASTHMA

Asthma - Inflamed Bronchial Tube



(Peter et al., 2026)

Definition of Asthma

Asthma is a common long-term respiratory condition that affects people of all ages. It causes inflammation and narrowing of the airways, making it difficult for air to move in and out of the lungs (Scarlata and Incalzi, 2022). People with asthma may experience periods when their symptoms become worse, known as asthma attacks or exacerbations (Tony, 2022). These attacks can range from mild to severe and may require urgent medical treatment. Although asthma cannot be completely cured, it can be effectively managed with the correct medication, regular monitoring, and by avoiding triggers. (Scarlata and Incalzi, 2022). Good asthma management allows most people to live active and healthy lives. Early diagnosis, patient education, and following a personalised asthma action plan are important to prevent complications and improve quality of life (Rao, 2023).

Prevalence of Asthma

Global Prevalence

Asthma is one of the most common long-term diseases worldwide and affects people of every age group. More than 363 million people are estimated to be living with asthma across the world, and it causes over 442,000 deaths (WHO, 2026). The condition is found in both developed and developing countries, although access to diagnosis and treatment differs greatly. Children are more commonly affected than adults, but asthma can develop at any age (Rao, 2023). Many asthma-related deaths are preventable with early diagnosis, regular treatment, and access to inhaled medicines (WHO, 2026). Public health programmes, patient education, and reducing exposure to environmental triggers can help lower the global burden of asthma and improve people's quality of life (WHO, 2026).

Prevalence in the UK

On average, around three people die from asthma every day, although many of these deaths are considered preventable. Asthma is a major public health condition in the United Kingdom (NICE, 2024). Around 5.4 million people in the UK receive treatment for asthma, including approximately 4.3 million adults and 1.1 million children (NHS, 2025).



Preventable with appropriate care and treatment. Asthma is one of the most common long-term conditions managed by the NHS and results in thousands of hospital admissions each year due to severe asthma attacks (NICE, 2024). Regular asthma reviews, correct inhaler technique, and personalised asthma action plans help reduce complications, improve symptom control, and lower the risk of emergency hospital admissions (NHS, 2025).

Causes and Risk Factors

Asthma develops because of a combination of genetic and environmental factors. Different triggers affect different people, and recognising these triggers is an important part of asthma management.



(Thomson, 2022)

Genetic Factors: Having a family history of asthma increases the risk. A family history of allergies, eczema, or hay fever also raises the chance of developing asthma. Some people inherit sensitive airways that react easily to different triggers (Diab et al, 2022).

Environmental Factors: Air pollution from traffic and industry can irritate the airways. Exposure to tobacco smoke before or after birth increases asthma risk. Damp homes, mould, and poor indoor air quality may worsen symptoms (Krismanuel and Hairunisa, 2024).

Allergies: House dust mites are a common asthma trigger. Pollen can trigger seasonal asthma symptoms. Animal fur, feathers, and pet dander may cause breathing difficulties. Mould spores and cockroach allergens may also trigger asthma (Chatkin et al, 2022).

Lifestyle and Occupational Factors: Smoking and vaping can increase airway inflammation. Obesity is linked with poorer asthma control. Some workplace chemicals, dust, fumes, and gases can cause occupational asthma. Lack of regular physical activity may contribute to poor lung health (Makrufardi et al, 2023).

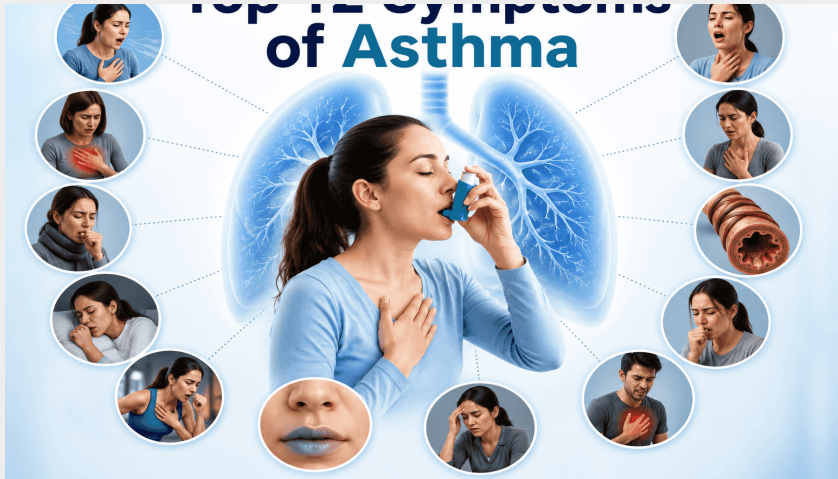
Other Risk Factors

- Respiratory infections during early childhood may increase the risk (Raby et al, 2023).
- Cold air and sudden weather changes can trigger symptoms (Chatkin et al, 2022).
- Exercise may trigger asthma in some people (Diab et al, 2022).
- Stress and strong emotions can make symptoms worse (Chatkin et al, 2022).

- Certain medicines, such as aspirin or beta-blockers, may trigger asthma in sensitive individuals (Raby et al, 2023).

Signs and Symptoms

Physical Impact



(Harshcusb, 2026)

- Persistent coughing is one of the most common symptoms of asthma and often becomes worse during the night, early morning, after exercise, or when exposed to triggers such as cold air, smoke, pollen, or dust, which can disturb sleep and affect daily activities (Hisinger-Mölkänen et al, 2022).
- Wheezing is a high-pitched whistling sound that occurs when breathing, especially during exhalation, because the airways become narrow and inflamed, making it difficult for air to pass through the lungs normally (Thomas et al, 2022).
- Shortness of breath can occur during physical activity or even while resting in people with poorly controlled asthma, making

simple daily tasks such as climbing stairs, walking, or carrying shopping difficult and tiring (Kooner et al, 2022).

- Chest tightness or pressure is commonly described as a feeling of heaviness or squeezing in the chest due to inflamed and narrow airways, which may increase anxiety and make breathing feel uncomfortable (Hisinger-Mölkänen et al, 2022).
- Increased mucus production can block the airways, cause repeated coughing and make breathing more difficult, particularly during asthma attacks or chest infections (Thomas et al, 2022).
- Fatigue is common because breathing requires more effort, and disturbed sleep caused by coughing or wheezing leaves people feeling tired, weak, and less able to concentrate during the day (Hisinger-Mölkänen et al, 2022).
- Severe asthma attacks can develop suddenly, causing extreme breathlessness, difficulty speaking, rapid breathing, bluish lips or fingertips due to low oxygen levels, and the need for urgent emergency medical treatment (Kooner et al, 2022).

Psychological Symptoms

- Many people with asthma experience anxiety because they worry about having an asthma attack unexpectedly, particularly when they are away from home, at work, at school, or travelling (Alqarni et al, 2024).
- Fear of breathlessness can reduce confidence and make individuals avoid physical exercise, outdoor activities, or social events because they are concerned that their symptoms may suddenly become worse (Dut et al, 2022).
- Living with a long-term condition such as asthma may lead to stress, frustration, or low mood, especially if symptoms are frequent, interfere with sleep, or require repeated hospital visits (Dut et al, 2022).
- Children and young people with asthma may become worried about being different from their friends because they need to

carry inhalers, avoid certain activities, or attend regular healthcare appointments (Alqarni et al, 2024).

- Poorly controlled asthma may reduce self-confidence and independence, causing some people to rely heavily on family members or carers for reassurance and support during periods of worsening symptoms (Dut et al, 2022).

Social Impact

- Asthma may cause children to miss school because of symptoms, medical appointments, or hospital admissions, which can affect learning, educational achievement, and participation in school activities (Wang et al, 2024).
- Adults with asthma may need time off work because of worsening symptoms or asthma attacks, which can reduce productivity, affect career opportunities, and place financial pressure on individuals and families (Margolis et al, 2022).
- Some people avoid sports, exercise, or outdoor activities because they fear becoming breathless or experiencing an asthma attack, reducing opportunities for physical fitness and social interaction (Wang et al, 2024).
- Environmental triggers such as cigarette smoke, air pollution, perfumes, pet hair, dust, or pollen may limit where people can go, making holidays, family visits, and social gatherings more difficult to enjoy (Wang et al, 2024).
- The ongoing need for medication, regular asthma reviews, and avoiding known triggers can sometimes make people feel different from others and reduce their confidence in everyday situations (Margolis et al, 2022).

Impact on Family and Caregivers

- Parents, partners, and caregivers often worry about recognising the early signs of an asthma attack and ensuring that emergency medication is available whenever it is needed (Mathiazhakan and Abirami, 2023).

- Family members may need to remind the person to take their preventer inhaler every day, attend regular asthma reviews, and use the correct inhaler technique to keep symptoms under control (Wu et al, 2025).
- Caring for someone with severe or poorly controlled asthma can be emotionally stressful because family members may fear sudden emergencies, hospital admissions, or life-threatening asthma attacks (Lu et al, 2026).
- Caregivers may need to adjust family routines, work schedules, or travel plans to attend healthcare appointments, collect prescriptions, or provide support during periods of worsening asthma (Mathiazhakan and Abirami, 2023)
- Education about asthma, personalised asthma action plans, and support from healthcare professionals help families recognise worsening symptoms early, respond quickly to asthma attacks, improve treatment adherence, reduce anxiety, and enable the person with asthma to live a safer, healthier, and more independent life (Lu et al, 2026)

Investigation / Screening of Asthma

Investigation and screening for asthma help healthcare professionals confirm the diagnosis, identify possible triggers, and assess the severity of the condition. Early assessment and regular monitoring allow effective treatment to begin quickly, reducing symptoms, preventing asthma attacks, and improving the person's quality of life (Demoly et al, 2022).

Initial Assessment

The initial assessment of asthma begins with a detailed medical history and inquiry into symptoms such as coughing, wheezing, chest tightness, and shortness of breath, including when these symptoms occur and what triggers them (Byrne et al, 2023). The healthcare professional also asks about family history of asthma, allergies, eczema, smoking habits, occupational exposure, and

previous respiratory illnesses because these factors increase the likelihood of asthma (Demoly et al, 2022). A physical examination is performed to listen to the lungs and assess breathing. In contrast, lung function tests and peak flow measurements may be arranged to confirm the diagnosis and determine the severity of the condition before treatment begins (Demoly et al, 2022).



(Ganesh, 2025)

Diagnostic Criteria

- A detailed history of recurring symptoms such as wheezing, coughing, chest tightness, and shortness of breath is collected to identify patterns that suggest asthma rather than another respiratory condition (Byrne et al, 2023).
- Symptoms that become worse during the night, early morning, after exercise, or following exposure to allergens, cold air, smoke, or respiratory infections strongly support a diagnosis of asthma (Martin et al, 2022).
- Spirometry is performed to measure lung function and determine whether airflow obstruction is present and whether it improves after using a bronchodilator inhaler.
- Peak Expiratory Flow (PEF) monitoring over two to four weeks helps identify variable airflow limitations that are commonly seen in people with asthma (Gupta et al, 2022).

- Fractional Exhaled Nitric Oxide (FeNO) testing may be used to detect inflammation within the airways that is associated with allergic asthma (Martin et al, 2022).
- Blood tests, allergy testing, or chest X-rays may be performed when necessary to exclude other conditions and support the overall clinical assessment before confirming the diagnosis (Gupta et al, 2022)

Treatment as per NICE Guidelines

- ✓ **Personalised asthma plan:** Every person with asthma should receive an individual asthma management plan that explains how to take medicines correctly, recognise worsening symptoms, and know when emergency help is needed (NICE, 2024).
- ✓ **Reliever inhaler:** A short-acting bronchodilator inhaler is used for quick relief because it relaxes the airway muscles and helps breathing return to normal during an asthma attack (McDowell et al, 2025).
- ✓ **Preventer inhaler:** Inhaled corticosteroids are the main preventer treatment because they reduce airway inflammation, improve symptom control, and lower the risk of severe asthma attacks (NICE, 2024).



(AAFA, 2026)

- ✓ **Combination inhalers:** If symptoms remain uncontrolled, combination inhalers containing inhaled corticosteroids and

long-acting bronchodilators may be prescribed to improve long-term asthma control (Martin et al, 2022).

- ✓ **Inhaler technique:** Healthcare professionals should regularly check inhaler technique because incorrect use means less medicine reaches the lungs and treatment becomes less effective (McDowell et al, 2025).
- ✓ **Regular reviews:** Asthma reviews should be carried out regularly to monitor symptom control, assess how well the medicines are working, and adjust treatment according to the person's changing needs (NICE, 2024).
- ✓ **Trigger avoidance:** Patients should be educated about avoiding known triggers such as cigarette smoke, dust mites, pollen, mould, and air pollution whenever possible (NICE, 2024).
- ✓ **Vaccinations:** Vaccinations against influenza and other respiratory infections should be encouraged because infections often trigger asthma attacks and make symptoms worse (NICE, 2024).

House of Care Model for Asthma

- **Person-centred care:** The House of Care Model places the person with asthma at the centre of all healthcare decisions, ensuring that care is based on individual needs, preferences, and personal goals (Bennett et al, 2018).
- **Shared decision-making:** Healthcare professionals and patients discuss treatment options together so that the chosen plan is realistic, effective, and suitable for everyday life (Haines et al, 2020).
- **Personalised asthma action plans:** Clear written guidance is provided about daily medication, recognising worsening symptoms, and responding appropriately during an asthma attack (Dahlén et al, 2026).
- **Education and support:** Healthcare professionals teach correct inhaler technique, trigger avoidance, healthy lifestyle

choices, and the importance of attending regular asthma reviews (Haines et al, 2020).

- **Family and caregiver involvement:** Family members and caregivers are encouraged to become involved in asthma management because they can provide practical support, emotional reassurance, and assistance during emergencies (Hagstedt et al, 2026).

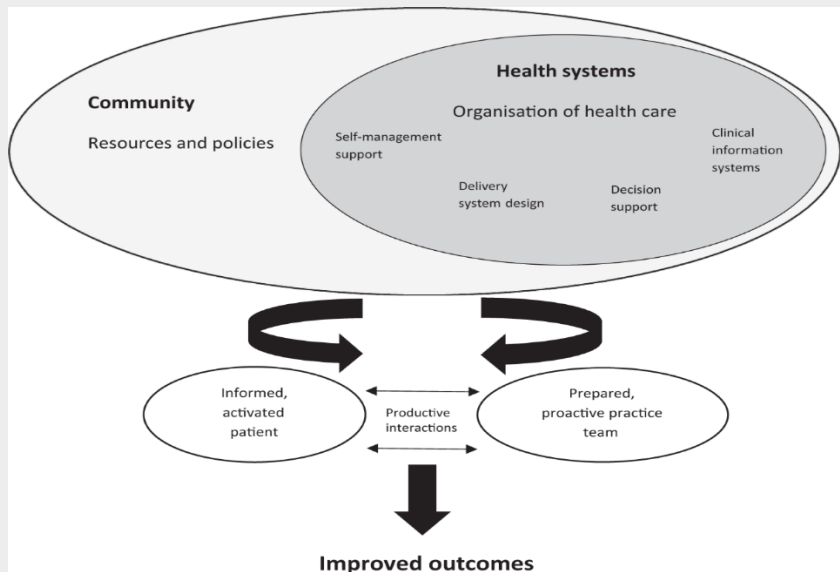


(Dr Graham, 2016)

- **Coordinated professional care:** Effective communication between general practitioners, nurses, pharmacists, respiratory specialists, and other healthcare professionals ensures coordinated, safe, and consistent asthma care (Haines et al, 2020).
- **Regular monitoring:** Follow-up appointments help identify changes in asthma control early, allowing treatment to be adjusted before symptoms become more severe (Bennett et al, 2018).
- **Community support:** Community services and patient support groups provide additional education, confidence, and

practical advice that help individuals successfully manage asthma over the long term (Bennett et al, 2018).

The Chronic Care Model



(Zheng et al., 2019)

-  **Self-management support:** The model encourages patients to build the knowledge, confidence, and skills needed to manage asthma successfully every day (Zheng et al, 2019).
-  **Delivery system design:** It promotes organised healthcare teams that provide planned, coordinated, and continuous asthma care rather than treating symptoms only during emergencies (Young et al, 2026).
-  **Decision support:** Healthcare professionals are guided by evidence-based clinical recommendations so that asthma treatment is safe, effective, and consistent (Zheng et al, 2019).

-  **Clinical information systems:** Electronic patient records are used to monitor asthma control, arrange follow-up appointments, and identify people who need extra support (Zheng et al, 2019).
-  **Community resources:** Patients are encouraged to use community services, education programmes, and support organisations that improve asthma awareness and self-management skills (Young et al, 2026).
-  **Health system organisation:** Healthcare organisations develop policies that improve the quality, safety, accessibility, and continuity of asthma care for all patients (Zheng et al, 2019).
-  **Productive partnerships:** Strong partnerships between healthcare professionals, patients, families, and carers improve communication, support shared decision-making, and lead to better long-term asthma outcomes (Young et al, 2026).
-  **Continuous improvement:** Regular review of asthma services helps ensure that care remains effective, evidence-based, and focused on improving health and quality of life (Zheng et al, 2019).

Implementation of Local and National Political Health and Social Care Agendas

National health policies play an important role in improving asthma management across the United Kingdom by promoting early diagnosis, evidence-based treatment, and person-centred care. The NHS Long-Term Plan and NICE guidelines encourage regular asthma reviews, personalised asthma action plans, correct inhaler use, and better access to specialist respiratory services (Bousquet et al, 2019). These national initiatives have helped reduce avoidable hospital admissions, improve self-management, and support multidisciplinary working between general practitioners, nurses, pharmacists, and respiratory

specialists (Bousquet et al, 2019). However, despite these improvements, variations in service availability, workforce shortages, delayed appointments, and health inequalities continue to affect the quality of asthma care, particularly in deprived communities where people often experience poorer health outcomes and higher emergency admission rates (Bousquet et al, 2019).

At the local level, Integrated Care Systems (ICSs), primary care networks, community pharmacies, schools, and public health services work together to improve asthma education, promote smoking cessation, reduce environmental risk factors, and provide regular monitoring for people living with asthma (Bird et al, 2025). Local programmes encourage collaborative working, patient education, and early intervention, helping individuals manage their condition more effectively and reduce preventable asthma attacks (Bird et al, 2025). Nevertheless, differences in local funding, availability of specialist respiratory services, staff training, and patient engagement can limit the consistent implementation of these initiatives (Bird et al, 2025). Continued investment, stronger collaboration between health and social care services, and targeted support for vulnerable populations are essential to achieve equitable, high-quality asthma care across all communities (Bird et al, 2025).

Recommendations for Improving Person-Centred Care: Self-Management

- ❑ Patients should understand what asthma is, how it affects the lungs, and why taking regular medication is important even when symptoms seem well-controlled (Dahlén et al, 2026).
- ❑ Every patient should receive a personalised written asthma action plan that explains daily treatment, warning signs of worsening asthma, and the correct action to take in an emergency (Hagstedt et al, 2026).

- ❑ Correct inhaler technique should be checked regularly because using inhalers properly allows the medicine to reach the lungs and work more effectively (Hagstedt et al, 2026).
- ❑ Patients should identify and avoid personal triggers such as cigarette smoke, dust, pollen, pet dander, cold air, strong perfumes, and air pollution whenever possible (Dahlén et al, 2026).
- ❑ Regular exercise, maintaining a healthy body weight, eating a balanced diet, and avoiding smoking all help improve lung health and support better asthma control (Hagstedt et al, 2026).
- ❑ Patients should attend routine asthma reviews so healthcare professionals can monitor symptoms, adjust medication, and provide ongoing education and support (Dahlén et al, 2026).
- ❑ Family members and caregivers should be included in education so they understand how to recognise worsening symptoms and provide appropriate help during asthma attacks (Hagstedt et al, 2026).
- ❑ Good communication between patients and healthcare professionals helps build confidence, improve treatment adherence, and support long-term asthma management (Dahlén et al, 2026).

End of Life Care

- End-of-life care for people with severe advanced respiratory disease aims to provide comfort, dignity, and the best possible quality of life while respecting the person's wishes and preferences (Talbot et al, 2024).
- Healthcare professionals should discuss future care planning early so patients and their families understand treatment options and can make informed decisions together (Gayen et al, 2024).

- Breathlessness should be carefully managed using appropriate medication, oxygen therapy when needed, relaxation techniques, and emotional support to reduce discomfort (Talbot et al, 2024).
- Pain, anxiety, and distress should be assessed regularly and treated promptly to improve comfort and reduce unnecessary suffering during the final stages of life (Gayen et al, 2024).
- Psychological, emotional, cultural, and spiritual needs should be recognised because holistic care supports both the patient and their family throughout the illness (Gayen et al, 2024).
- Family members and caregivers should receive clear information, practical guidance, and emotional support to help them cope with caring responsibilities and prepare for future changes (Talbot et al, 2024).
- A multidisciplinary team including doctors, nurses, palliative care specialists, physiotherapists, and social care professionals should work together to provide coordinated, compassionate, and individualised care (Gayen et al, 2024).
- Respecting the patient's dignity, privacy, cultural beliefs, and personal choices throughout end-of-life care helps ensure compassionate support for both the individual and their loved ones (Gayen et al, 2024).



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