Why is mould a significant health risk?

Mould is a significant health risk primarily because it releases tiny spores, fragments, and volatile organic compounds into the air, which can cause respiratory issues, allergic reactions, and asthma attacks upon inhalation. In the UK, common indoor moulds like *Aspergillus* and *Penicillium* are particularly problematic, especially for children, the elderly, and those with pre-existing conditions, exacerbating conditions like damp and asthma.

Understanding the Health Dangers of Household Mould in the UK

Mould is a pervasive issue in many British homes, often developing in areas with poor ventilation and high moisture levels, such as bathrooms, kitchens, and older properties. It's not just an aesthetic problem; it poses genuine health risks to occupants. Understanding *why* mould is dangerous is the first step toward effective prevention and management.

The Mechanisms of Mould-Related Illness

Mould, a type of fungus, reproduces by creating and releasing tiny **spores** into the air. When these spores settle on damp surfaces and find an organic food source (like wood, plasterboard, or fabric), they begin to grow. The danger arises when people inhale these airborne spores, fragments, or the mycotoxins some moulds produce.

Allergic Reactions and Respiratory Issues

The most common health issues linked to mould exposure are allergic reactions. For many, inhaling mould spores triggers the immune system to respond, leading to symptoms like:

- **Sneezing and a runny nose**
- **Red eyes and skin rashes**
- **Coughing and wheezing**
- **Throat irritation**

The NHS often links damp and mould to respiratory problems. A 2021 study highlighted that damp and mould in UK housing disproportionately affect lower-income households and tenants, suggesting a serious public health inequality issue. Furthermore, chronic exposure can lead to persistent congestion and sinusitis.

The Impact on Asthma Sufferers

Mould is a significant **asthma trigger**. For the estimated 5.4 million people in the UK currently receiving treatment for asthma, according to Asthma + Lung UK, exposure to mould can cause airways to become inflamed and narrowed, leading to potentially severe attacks.

The **National Institute for Health and Care Excellence (NICE)** guidelines recognise that damp and mould exposure is a risk factor for both the development and exacerbation of asthma, particularly in children. A mould-ridden bedroom, for instance, significantly increases a child's risk of developing respiratory symptoms.

Mycotoxins and Systemic Effects

Some species of mould, notably **Stachybotrys chartarum** (often referred to as 'black mould'), produce toxic compounds called **mycotoxins**. While the direct link between mycotoxin inhalation in homes and serious, life-threatening illness is still debated in the scientific community, the potential for systemic health effects is a serious concern.

Exposure to these mycotoxins, particularly over long periods, has been tentatively associated with symptoms such as:

- **Fatigue and headaches**
- **Memory problems (cognitive impairment)**
- **Nausea and vomiting**

It is therefore crucial to treat any discovery of extensive mould growth, especially black mould, with urgency and professional remediation.

Specific UK Data and At-Risk Groups

The problem of mould is intrinsically linked to housing conditions in the UK. Data consistently shows that cold, damp, and poorly ventilated housing is a major contributor.

Health Risk	Population Affected	Specific Data/Fact
Increased Respiratory Illness	General Population	A 2018 Public Health England (PHE) report linked damp and mould to an increased risk of respiratory illness, especially in children.
Asthma Exacerbation	UK Asthma Sufferers	Roughly one-fifth of homes in England have reported issues with damp, increasing the probability of mould exposure and subsequent asthma flare-ups.
Immunocompromised Individuals	Elderly, Transplant Patients, Chemotherapy Patients	These groups face the risk of **invasive aspergillosis**, a severe, sometimes fatal, infection caused by inhaling *Aspergillus* mould spores, which are common indoors.

The **Chartered Institute of Environmental Health (CIEH)** frequently highlights that damp and mould breaches the Housing Health and Safety Rating System (HHSRS) by presenting a Category 1 hazard, which is the most serious classification. Local authorities have a statutory duty to address these hazards when found.

The Role of Ventilation in Mould Prevention

Mould thrives where moisture is high and air movement is poor—a condition common in British homes reliant on traditional heat sources and lacking modern ventilation. This is why addressing **inadequate ventilation** is central to solving the mould problem.

Modern mechanical ventilation systems, like continuous extract ventilation (**dMEV**) or mechanical ventilation with heat recovery (**MVHR**), proactively remove moisture-laden air and supply fresh, filtered air, disrupting the damp cycle essential for mould growth.

- **dMEV (e.g., ARIA):** This system continuously extracts small volumes of air from wet rooms (kitchens, bathrooms), ensuring humidity levels remain low and preventing condensation, which is the precursor to mould.

- **MVHR (e.g., RESPIRO, FLUXO, AUREN):** This is a whole-house solution that recovers heat from extracted air before supplying fresh, filtered air, improving air quality significantly while maintaining energy efficiency. This is particularly effective as it addresses both moisture and the introduction of clean air.

By implementing effective, continuous ventilation, homeowners and landlords can drastically reduce indoor humidity, thereby eliminating the environment mould needs to proliferate and significantly lessening the associated health risks.