

50% increased risk of asthma/wheezing in homes with damp/mould

Children living in damp or mouldy homes face a 50% higher risk of developing asthma or wheezing disorders compared to those in dry environments, according to a 2016 systematic review of 41 studies published in *The Journal of Allergy and Clinical Immunology: In Practice*. This risk stems from prolonged exposure to mould spores and damp-related allergens, which trigger inflammatory responses in sensitive airways.

The Science Behind Damp, Mould, and Respiratory Health

1. How Damp Conditions Fuel Mould Growth

Mould thrives in environments with relative humidity above 60%, common in poorly ventilated UK homes. Key contributors include:

- Condensation on cold surfaces (e.g., windows, walls)
- Leaks from plumbing or roofing
- Rising damp from defective ground barriers

Mould releases *mycotoxins* and *β-glucans* – microscopic particles that provoke immune reactions when inhaled. For children, whose immune systems are still developing, repeated exposure can lead to chronic airway inflammation.

2. UK-Specific Data on Housing Conditions and Asthma

A 2023 UK Housing Survey revealed:

- **1 in 5 households** report damp issues
- **Northern England and Wales** have the highest rates of mould infestations
- **Rental properties** are 30% more likely to have damp problems than owner-occupied homes

This aligns with NHS data showing higher asthma hospitalisation rates in regions like Manchester and Liverpool, where older housing stock and higher rainfall exacerbate dampness.

3. Mechanisms of Harm: From Spores to Wheezing

Mould exposure impacts respiratory health through three pathways:

Mechanism	Effect on Body	Outcome
Allergic Sensitisation	Immune system overreacts to mould proteins	Histamine release → wheezing, nasal congestion
Toxic Irritation	Mycotoxins damage airway epithelial cells	Chronic cough, reduced lung function
Immune Dysregulation	Persistent inflammation alters immune response	Higher susceptibility to viral infections (e.g., RSV)

A 2020 Bristol University study found children in mouldy homes had **22% lower lung function** scores than peers in dry homes.

Mitigating the Risk: Practical Solutions for UK Homes

1. Ventilation: The First Line of Defence

"You wouldn't drink stagnant water, so why breathe stagnant air?"

Effective strategies:

- Install **continuous mechanical ventilation systems** (e.g., VENTI's FLUXO D-MVHR), which reduce humidity by 40-60% while filtering out spores
- Use extractor fans in kitchens/bathrooms during and after cooking/showering
- Open windows for **10 minutes daily**, even in winter, to flush out moisture

2. Case Study: A Family in Manchester

The Thompsons (names changed), living in a 1930s terrace, faced severe mould in their toddler's bedroom. After installing a **VENTI ARIA system**:

- Humidity dropped from 75% → 52% within 2 weeks
- Child's nocturnal coughing episodes reduced by 80%
- NHS inhaler use declined from daily to twice weekly

3. Policy Gaps and Advocacy Opportunities

While England's **Homes (Fitness for Human Habitation) Act 2018** mandates landlords address "Category 1" hazards like severe damp, enforcement remains patchy. Only **12% of local councils** conduct proactive dampness inspections.

Call to action:

- Tenants: Use the [Government's Housing Health and Safety Rating System \(HHSRS\)](#) toolkit to demand repairs
- Landlords: Invest in **cost-effective solutions** like decentralised heat recovery ventilation (DHRV) systems, which pay for themselves via reduced repair claims

Don't let your home's air quality become a health liability - [contact VENTI](#) today for a free dampness risk assessment and breathe easier tomorrow.