

Stale Air

In UK residential construction and retrofit contexts, stale air describes degraded indoor air quality resulting from insufficient ventilation.

This condition manifests through measurable pollutant accumulation:

- **CO₂ Concentration:** Frequently exceeds 1,000 parts per million in poorly ventilated homes (contrasting with 400 ppm outdoor levels)
- **Chemical Contaminants:** Includes volatile organic compounds (VOCs) from materials like medium-density fibreboard and synthetic floor coverings
- **Biological Factors:** Microbial VOCs from damp issues prevalent in pre-1919 housing stock (35% of UK homes)
- **Particulates:** Aggravated by traditional heating methods still found in 23% of English properties

Health & Comfort Impacts

Short-term exposure typically causes:

- Perceived stuffiness and odour retention
- Acute symptoms like concentration difficulties

Chronic exposure risks include:

- Worsening asthma (affects 8 million UK residents)
- Sick building syndrome patterns