# What Are the Hidden Costs of Poor Indoor Air Quality (IAQ)?



Poor indoor air quality (IAQ) is a problem that's often overlooked, but it's got some serious hidden costs. These costs don't just affect our health; they hit our wallets, the environment and even our society.

Let's break it down in simple terms and see why it's so important to tackle the hidden costs of poor indoor air quality head-on.

# Why Indoor Air Quality Matters

Most of us spend 80-90% of our time indoors, whether at home, work, or school.

That means the air we breathe inside has a huge impact on our health and well-being. Poor IAQ isn't just about feeling stuffy or noticing a funny smell; it's linked to serious health problems, economic losses, and even social inequalities.

# The Health Costs: More Than Just a Cough

When the air inside is bad, it can lead to all sorts of health issues.

Think respiratory problems like asthma, heart conditions, and even cognitive issues like trouble concentrating. Tragically, poor IAQ can be deadly. Take the case of <u>Ella Adoo-Kissi-Debrah</u>, who was the first person in the UK to have air pollution listed as a cause of death. Her death in 2013 is a heart-breaking reminder of how serious this issue can be.



But it's not just physical health that's at risk.

Living in a damp, mouldy home can impact your mental health too.

It can make you feel stressed, anxious, or even depressed.

And let's not forget how poor IAQ can affect kids. Exposure to mould and damp can lead to long-term health problems and even hurt their chances at school.

### The Cognitive Costs: Hidden Impacts on Brain Development

Poor IAQ doesn't just affect our bodies—it can also harm our minds.

Exposure to pollutants like volatile organic compounds (VOCs) and mould can impair long-term cognitive development, particularly in children. Studies show that poor IAQ can lead to lower IQ scores and learning disabilities, which can have lifelong consequences. This is a hidden cost that many people overlook, assuming that air quality only affects physical health.

# The Economic Costs: A Drain on Businesses and the Economy

Poor IAQ doesn't just make us sick, it costs us money.

When people get ill from bad air, they take more sick days and work less efficiently. For businesses, this means lost productivity and higher costs. But there's more to it: poor ventilation systems can actually increase energy costs by overworking to compensate for bad air quality.



Here's the good news: improving IAQ can actually save money in the long run.

For example, better ventilation in offices can reduce sick leave and boost productivity.

It's a win-win for both employees and employers. Plus, homes and buildings with good IAQ are more valuable. Buyers and tenants are willing to pay more for a healthy environment. However, properties with poor IAQ often require costly repairs before they can be sold, and buyers may demand significant discounts.

# The Social Costs: Unequal Burdens

Poor IAQ doesn't affect everyone equally.

Children, the elderly, and people with existing health problems are hit the hardest. This creates a big social inequality because these groups often have less control over the air they breathe indoors. What's more, poor IAQ can lead to behavioural changes, such as reduced social interaction or increased irritability, due to discomfort or health issues.



One of the biggest problems is the lack of clear rules about indoor air quality.

While there are strict standards for outdoor air, indoor air is often ignored. This leaves people and businesses to figure things out on their own, which isn't fair or effective.

#### The Environmental Costs: Inside and Out

Indoor air pollution doesn't stay indoors, it can escape and add to outdoor pollution. For example, chemicals from cleaning products or paints can get into the air outside, making the problem even worse.

Improving IAQ can help the environment too. Using fewer harmful chemicals indoors means cleaner air both inside and out. And better ventilation can reduce energy use, cutting down on carbon emissions. It's a small change that can make a big difference for the planet.

# The Hidden Costs: Beyond the Obvious

#### 1. Impact on Sleep Quality

Poor IAQ can disrupt sleep patterns, leading to insomnia or poor-quality sleep.

Pollutants like carbon dioxide and allergens can interfere with breathing and reduce oxygen levels during sleep, affecting overall health and well-being. This is a hidden cost that many people don't associate with air quality.



#### 2. Impact on Creativity and Innovation

While we know about productivity losses due to poor IAQ, what's less obvious is its impact on creativity and innovation.

Studies show that poor air quality can reduce cognitive flexibility and problem-solving abilities, which are critical for creative tasks. This is a hidden cost that workplaces often overlook.

#### 3. Impact on Pet Health

Poor IAQ doesn't just affect humans, it can also harm pets.

Animals are often more sensitive to air pollutants, leading to respiratory issues, allergies, and other health problems. This is a hidden cost that pet owners may not consider.

#### 4. Impact on Food Quality

In homes with poor ventilation, pollutants can contaminate food, affecting its taste, smell, and safety.

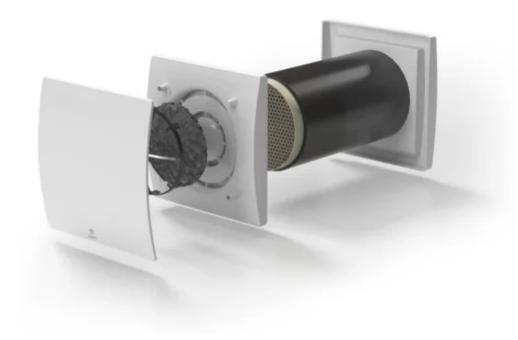
This is a hidden cost that people often overlook, assuming that food quality is only influenced by storage and preparation methods.

#### 5. Legal and Liability Risks

Businesses and landlords may face legal liabilities if poor IAQ leads to health problems among occupants. This is a hidden cost that many property owners don't realise they could be held accountable for.

# **How Continuous Mechanical Extract Ventilation Can Help**

One of the best ways to improve IAQ is through proper ventilation.



Continuous mechanical extract ventilation (CMEV) systems such as <u>FLUXO</u> are a game-changer. They work by constantly removing stale air, pollutants, and moisture from inside and replacing it with fresh air from outside.

This isn't just about comfort, it's about health.

CMEV systems can reduce the risk of damp and mould, which are common in poorly ventilated spaces. They can also cut down on allergens and pollutants, making the air cleaner and safer to breathe.

#### What Can We Do?

Improving IAQ isn't only up to governments or businesses; it's something we can all impact.



Here are a few simple steps we can all take today to overcome the hidden costs of poor indoor air quality:

- **Ventilate Properly**: Open windows regularly or invest in a fit-for-purpose mechanical extract ventilation system.
- **Reduce Pollutants**: Avoid using harsh chemicals indoors and opt for natural cleaning products.
- **Keep It Dry**: Tackle damp and mould quickly to stop them from spreading.
- Push for Change: Advocate for better IAQ standards and regulations.

# The Bigger Picture

Poor IAQ is a problem that affects us all, but it's one we can fix.

By understanding the hidden costs and taking action, we can create healthier homes, workplaces, and communities.

The benefits can help improve health, building a better future for everyone.

Let's make it a priority. Because when the air we breathe is clean, we all breathe easier.