

Patient case studies

The impact of poor air quality



University Hospital
Southampton
NHS Foundation Trust

Case Study 1: Learning to protect health later in life

Key Themes: Occupational exposure, importance of education, value of clinical advice

After years working on construction sites, exposed to dust and fumes without protection, Richard (Lordshill) now lives with chronic respiratory issues. He was recently diagnosed with asthma, after a long period of frequent chest infections and persistent shortness of breath.

Reflecting on his past, he remembers holding his breath when walking past exhaust fumes on-site – there was little understanding back then about the risks of air pollution. “There weren’t filters on anything. No one talked about it.”

Now, with more information, he's taken proactive steps: avoiding high-traffic areas and limiting time spent in town during congested periods. For him, education has been key. “Healthcare professionals are really the people who can advise you,” he says.

He believes clear advice on air pollution from clinicians can help others take action earlier than he did.



OUR SUSTAINABLE UHS
Together we'll create a healthier future

Case Study 2: A drastic change in health after retirement

Key Themes: Sudden health decline, urban exposure, loss of mobility, long-term impact of air pollution

After retiring from a job with long hours in a coastal Hampshire town, Mary's day-to-day routine changed significantly. Though she continued living in central Southampton, her time was now spent volunteering for a local charity – which meant long daily walks through the city, often along busy roads.

It wasn't long before her health began to change. She developed persistent breathlessness and recurring chest infections. Despite numerous tests and different medications, the cause remained unclear – until she began to connect her symptoms with air pollution.

After receiving advice from a healthcare professional with knowledge of air pollution and its health impacts, Mary started making changes. She finds it hard not being able to join her partner on his daily walks, but focuses on doing what she can to stay active. She avoids congested walking routes and focuses on indoor exercise at a local gym. She's also considering using a face mask outdoors on high-pollution days.

That single conversation helped her connect the dots – empowering her to make practical changes that support her health and independence.



Case Study 3: Empowerment through clinical advice

Key Themes: Clear impact of exposure, value of clinical advice

Sadie has had asthma since early childhood, but in the past five years, her symptoms worsened significantly. Persistent respiratory issues and chest infections raised concerns about possible COPD.

She hadn't considered that air pollution could be affecting her health – until a recent consultation with a healthcare professional helped her understand the link between her symptoms and air pollution.

Her clinician took the time to explain how air quality affects lung health, and offered practical steps to reduce exposure.

The advice brought her symptoms into context. While on holiday abroad, she can often go weeks without needing her inhaler – but at home, just arriving at her office in central Southampton can trigger symptoms if she hasn't used her inhaler that morning.

Following her consultation, she adjusted her routine to avoid walking in high-traffic areas during peak times – and has since seen a marked improvement in her symptoms.

She believes that every patient should receive this kind of advice, having experienced first-hand the significant difference it can make to a person's health and day-to-day life.

