# Rising global temperatures accelerate spread of deadly Aspergillus fungus threatening millions



Experts have issued a stark warning that rising global temperatures, driven by climate change, are facilitating the expansion of a dangerous fungus known as Aspergillus. This genus of mould has the potential to infect millions of individuals globally each year and poses severe health risks, including a condition known as aspergillosis. This occurs when the fungal spores enter the lungs and can develop into lumps comparable to the size of tennis balls, leading to serious breathing complications.

Research indicates that the incidence of invasive fungal infections, including aspergillosis, results in an estimated 2.5 million fatalities annually across the globe. Professor Norman Van Rhijn from the University of Manchester, a co-author of recent findings, spoke to the Financial Times, stating that "we're talking about hundreds of thousands of lives, and continental shifts in species distributions." He further asserted that in the next 50 years, the dynamics of which fungi grow and which species infect human populations will drastically change.

While most individuals are not adversely affected by inhaling Aspergillus spores, those with weakened immune systems—resulting from conditions such as asthma, cystic fibrosis, diabetes, or medical treatments like chemotherapy—are at a significantly heightened risk. The research underscores that Aspergillus fumigatus, already found in the UK, could proliferate across extensive regions of northern Europe, Asia, and the Americas in the coming decades. Projections suggest that within the next 75 years, this species may extend its reach as far as the North Pole, thus exposing an additional nine million people to potential infection.

Another strain of concern, Aspergillus flavus, not only poses infection risks but is also known for producing aflatoxins. These chemicals are associated with severe liver damage and cancer. Matthew Langsworth, 32, a resident of Leamington Spa, has shared his personal ordeal of developing a life-threatening blood infection caused by inhaling fungal spores present in his mould-infected home. He indicated that rather than addressing the extensive mould problem, the area had been merely painted over.

The conditions conducive to the growth of these fungi are being exacerbated by climate change, as warmer temperatures and higher levels of carbon dioxide accelerate the production of harmful toxins. Darius James, a professor of infectious diseases at Imperial College London, remarked, "There are serious threats from this organism both in terms of human health and food security."

The researchers also pointed to alarming trends indicating that some strains of the fungus are becoming resistant to treatment, largely due to the overuse of antifungal medications in both medical and agricultural settings. This over-reliance fosters the emergence of more resilient strains, often referred to as "super-fungi." The quick reproduction and evolution capabilities of fungi increase the likelihood that resistant strains may develop, particularly when human antifungal treatments are employed for crop protection.

Further complicating the situation is the reality that research into fungal infections remains significantly underfunded. The study highlights that less than 10 per cent of an estimated 1.5 to 3.8 million fungal species have been identified. In response to these alarming trends, the Wellcome Trust has committed over £50 million in funding towards fungal research over the coming year.

This research emerges in the wake of a notable outbreak of A. fumigatus in 2021, which tragically impacted vulnerable Covid-19 patients in intensive care, leading to mortality rates as high as 70 per cent among those infected. Langsworth's experience underscores the pressing issues associated with living in mouldy environments, which can precipitate a range of health problems, including respiratory diseases. Signs of potential mould-related health impacts include chronic coughs, wheezing, and worsening asthma conditions.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

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