



AIR POLLUTION: ITS EFFECTS ON THE UPPER RESPIRATORY TRACT

THE NOSE – THE FIRST LINE OF DEFENCE

The upper respiratory tract is the name given to the airways from the nose and lips down to the voice box (larynx). The nose filters air before it reaches the lower respiratory tract.¹

The fine hairs in the nose, known as cilia, help with filtering air¹ by moving certain unwanted particles that have been trapped in mucus. These trapped particles are eventually removed from the upper respiratory tract by being swallowed or coughed out.^{2,3}

AIR POLLUTION – WE CAN'T GET AWAY FROM IT

Air pollution affects nearly every country in the world,⁴ with over 80% of us living in areas where air quality is below WHO guidelines.⁵

Air pollution is a complex mixture of particles and gases, and is mainly caused by human activity.^{5,6}

Air pollution can also arise from natural sources such as dust, pollen and wild fires.⁶

THE EFFECT ON OUR HEALTH

Particles found in air pollution can slow down and disrupt the activity of fine hairs in the nose.^{7–10}

When people spend time in polluted air, the most commonly reported upper respiratory tract symptoms occurred in the nose and throat.^{1,11–13}

Nose and throat symptoms can include:^{1, 11}

- An itchy, runny and/or blocked nose
- Sneezing
- Swelling of the sinuses
- Dry mouth and throat
- Dry or wet cough
- Wheezing or difficulty breathing

LIVING WITH THE EFFECTS OF AIR POLLUTION

Avoiding the sources of air pollution is one possible solution for minimising respiratory symptoms.^{14,15} But for many of us, avoiding air pollution is unrealistic. Luckily there are some practical options that may help.^{16,17}

HOW TO CREATE A BARRIER TO AIR POLLUTION

If used correctly nasal filters, masks and respirators may help to create a barrier against pollutant particles in the air.¹⁸⁻²⁵ However, their design and what they are made of, can affect how well they work. There is also currently insufficient evidence for the use of a nasal filter to reduce air pollution-related symptoms.

HOW TO MANAGE SYMPTOMS THAT MAY BE RELATED TO AIR POLLUTION

Some over-the-counter treatments may help to reduce swelling in the nose and relieve the symptoms of a runny nose, sneezing, cough or dry throat.^{3,6,14,26-31} These products include nasal sprays, salt water washes, throat sprays and cough lozenges.

Note: There is no specific evidence to support the approaches listed above in relieving air pollution-related symptoms. If you have any questions about treatments always speak with your doctor, nurse or pharmacist.

INTRODUCING THE CLEAN BREATHING INSTITUTE

The Institute has been established with the aim of creating a network that works together to help reduce the negative impact of air pollution on respiratory health and quality of life.

We're using our unique position to connect the brightest and most motivated minds, through scientific engagement, educational programmes, practical solutions and strategic partnerships.

WE'RE AIMING HIGH

Our goals right now:

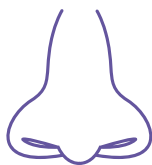


Start by focusing on the populations who are most in need



Build a network of specialists, organisations and companies to define and solve the critical issues

...And by 2025:



Reach over 2.5 million healthcare professionals with education and practical tools



Empower over 300 million people to breathe better

For more information and to receive updates from The Clean Breathing Institute, sign up at www.THECLEANBREATHINGINSTITUTE.com

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