





Deadly Impact of Air Pollution

Air is most essential to life. But only clean air is essential to a healthy life.

We take on average **20 000 breaths/day**, inhaling over **11 000 l of air per day**, or nearly **8 litres every minute**. Imagine breathing this much polluted air.

Long-term exposure to air pollution has damaging effect on every organ and virtually every cell in the human body.

More than 9 out of 10 people in the world -92% – live in the places where air pollution exceeds safe limits, according to research from the World Health Organization (WHO). [1]

Globally, **nearly 8.8 million people die prematurely due to air pollution**, which is now the world's largest single environmental health risk. [2]

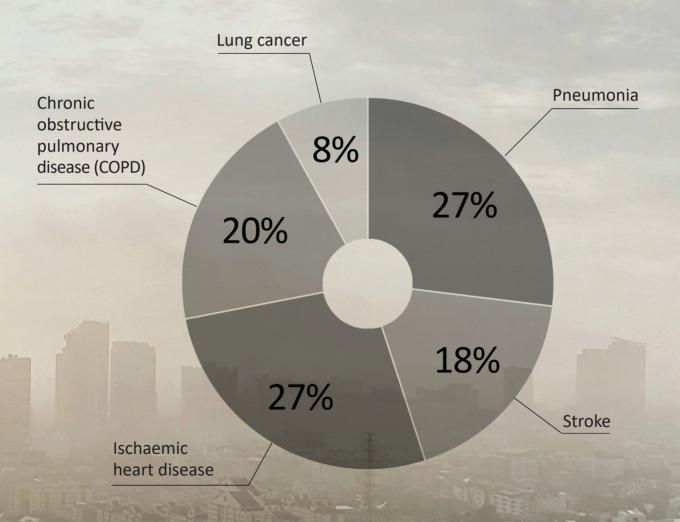
In one decade, the death rate from polluted air has almost doubled.

Every minute, more than **10 people** from all over the world **die** from direct consequences of **air pollution**.

2.9 years of life expectancy on average are lost due to outdoor air pollution — a bigger toll than from **tobacco smoking** (2.2 years lost), **HIV/AIDS** (0.7 years lost), and **diseases spread by parasites** and other vectors (0.6 years lost). [3]

Air in our homes is **10 times more polluted than outside air.**Indoor air pollution alone causes about **3.8 million premature deaths each year globally**, and 60% of those deaths are among women and children.

These 3.8 million deaths are due to:



Impact of Air Pollution on Reproduction, Infants and Children

Exposure to very high pollution levels of **PM 2.5** is associated with reduced **fertility** and **increased miscarriages**. Breathing polluted air during pregnancy can lead to a lower birth weight in **infants** and **premature birth**.

Children are especially vulnerable to air pollution!

Children breathe faster than adults due to increased physical activity, so their sensitive lungs are exposed to the higher concentration of air pollutants.

In 2019, ambient and household air pollution caused over half million deaths in children under 5 years! [4]

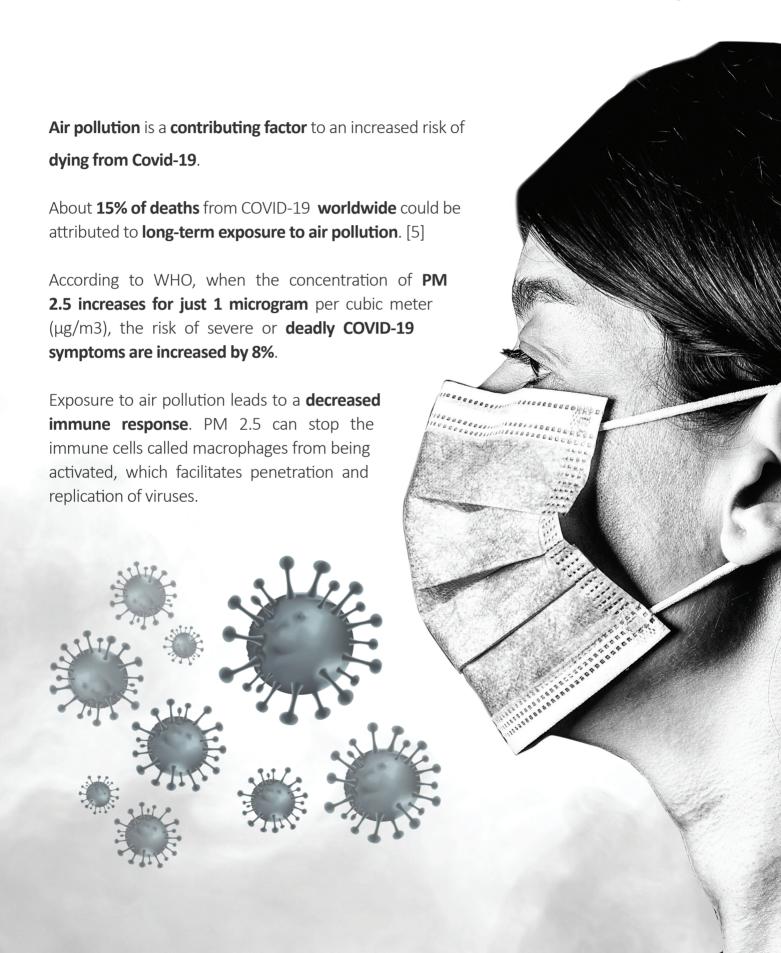
A child who is exposed to unsafe levels of pollution can face lifelong health impacts such as:

- Impaired mental and motor development
- Increased risk of heart disease, diabetes and stroke in adulthood
- Increased risk of developing asthma and bronchitis
- Acute lower respiratory tract infections
- Reduced lung function

"Not only do pollutants harm babies' developing lungs, they can permanently damage their developing brains – and, thus, their futures." – UNICEF



Air Pollution - Significant Factor of Increased COVID-19 Mortality

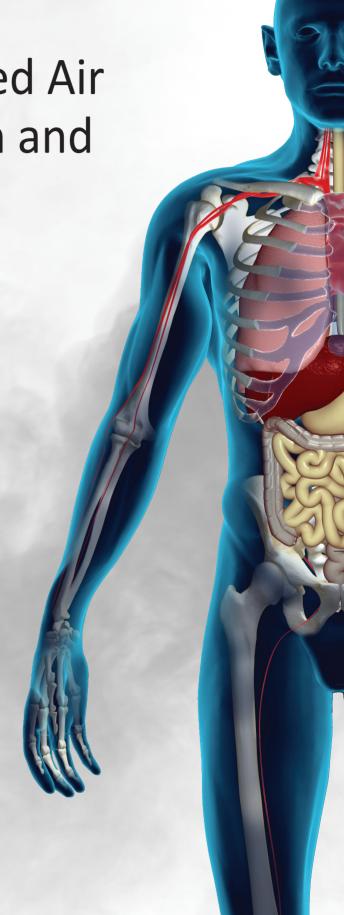


Breathing in Polluted Air Affects Every Organ and Every Cell

Air pollution - a "silent killer" - does head-to-toe harm: from heart and lung disease to diabetes and dementia, and from liver and gut problems to brittle bones and dehydrated skin. Fertility, fetuses and children are also affected by toxic air.

Ultrafine particles cause inflammation that floods through the bloodstream and reaches every cell in our body.

The most recent research is indicating a very strong link between **PM 2.5** and **Alzheimer's disease**. Air pollution significantly increases the risk of Alzheimer's disease and other neurological disorders. [6]



Brain and mind

Strokes, dementia and reduced intelligence (PM), headache and anxiety (SO₂)
There is also evidence that poor sleep can be a consequence of breathing toxic air.

Nose and throat

Irritation, inflammation and infections (O₃, PM, NO₂...).

Lungs

Breathing problems, from asthma to emphysema to lung cancer (NO_2 , PM). Chronic obstructive pulmonary disease (PM) attacks as arteries narrow and muscles weeken (PM, O_3 , SO_2).

Skin and bones

Skin ageing, hives and brittle bones are associated with toxic air.

Abdominal organs

Researches also link air pollution to numerous cancers, including the bladder and gut cancer (NO_2). [7]

Reproductive system

Premature birth, decreased birth weight, decreased fetal growth, intauterine growth retardation, decreased sperm quality, pre-eclampsia.







Technical Features

360° filtration system:



Pre-filter with silver nano particles



Carbon filter



HEPA filter



UV light: The wavelength of UV light is 265-315 nm



Ionizer: The negative ion generator produces **5 million** negative ions per cm³

99.9%

Filtration Efficacy

71m²

Recommended effective area

55 dB

Maximum noise level



Product dimensions (HxWxD): 64 x 33 x 33 cm



Product net weight: 7.3 kg



Power consumption: 50 W



24 V DC, 2.5 A



Input: 100-240 V, 50/60 Hz, 2.0 A Output: 24V DC, 2.5 A, 60 W





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5-year warranty



TAS-100

Display Functions





ON/OFF UV light



ON/OFF Ionizer



Filter exchange indicator: calculates filter lifetime based on operation time, and alerts you when it's time for filter replacement



Children lock: Includes a simple, yet effective child safety lock that deactivates the controls, preventing accidental or unwanted adjustments



1-24 HOUR TIMER FUNCTION: Once you set time from 1 to 24 hours, Smart air purifier will turn power off automatically. Time can be adjusted in one-hour steps by pressing the timer button.



Light sensor: Auto-ambient light automatically adjusts according to the light in the room



Sleep mode: The unit automatically operates silently to create a pleasant atmosphere at night

360° Three-Dimensional Circulation System

Therapy Air® Smart uses 360° multi-stage filtration system which allowws purified air to be quickly distributed **in all corners** of the **71m² indoor space**. Thanks to its **three-dimensional circulation system**, the air will be purified no matter where you place the device.





PRE-FILTER WITH SILVER NANO PARTICLES: eliminates **large particles** such as **dust, mould, hair, dandruff, pet hair**, etc. so the other filters can work at full power and last longer. It also has strong antibacterial properties due to silver nano particles.



CARBON FILTER: Contains 400 g of coconut shell charcoal which has the highest density of micropores. It eliminates unpleasant **food** and **cigarette smells** and all **toxic gases** such as toluene, benzene, xylene and formaldehyde.



H-13 GRADE HEPA FILTER: Coated with an organic antibacterial material Thiabendazole and anti-mould substances, it captures 99.97% of particles size 0.3 microns or smaller, including: **viruses**, **bacteria**, **allergens**, **mould** spores and **germs**. It prevents infections and also eliminates the **tiniest particles of dust** and **tobacco smoke**.

UV Light - an Extra Barrier

Therapy Air® Smart features a strong disinfecting UV light to inactivate airborne pathogens providing you with a unique impenetrable barrier.

How It Works?

Therapy Air® Smart uses short- wave UV-C light of 265-315 nm which splits the RNA/DNA material in the cell nucleus of microorganisms, making them unable to live and reproduce. The UV light mimics the antimicrobial power of sunlight and instead of filtering, completely eradicates mould spores and pathogens.

Therapy Air® Smart doesn't only collect microorganisms, it eliminates them.



Benefits of Ionic Air Purifier

Therapy Air® Smart generates approximately 5,000,000 ions/cm³.

Negative ions purify the air by **binding to pollutants** until these newly-formed larger particles become too heavy to remain in our breathing zone.

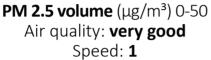
These 'Vitamins of Air' also have an amazing range of health benefits, both physical and mental.

Negative ions relax the mind and body, increase metabolism, stabilize appetite and blood pressure, enhance recovery from physical exhaustion, and help one feel refreshed and invigorated.



Know Your Air Quality

Therapy Air Smart instantly detects the air quality in real time, using high-precision sensors and then automatically adjusts the purification speed to provide clean air. **Red**, **yellow**, **blue** or **green LED** indicate air quality. Manual adjustment is also possible to enable full control of the airflow.



LED colour: **green**

PM 2.5 volume ($\mu g/m^3$) 51-100

Air quality: **average**Speed: **2**LED colour: **blue**









PM 2.5 volume ($\mu g/m^3$) 101-150

Air quality: **poor** Speed: **3** LED colour: **yellow** PM 2.5 volume (µg/m³) >151
Air quality: critical
Speed: 4
LED colour: red



Good Air. Good Life.

Improved indoor air quality boosts the immune system, increases productivity and reduces stress.

Therapy Air® Smart ensures optimal oxygenation of the body and the brain, improving alertness and concentration, as well as our immunity to fight disease.





Pathogens, pollutants, mould and allergens that can be found in indoor air are removed by **Therapy Air® Smart**. It also protects you from the flu and high fever, thus reducing the amount of medication.

Powerful 360°, 5-stage filtration system will also protect you against indoor pollution from chemical compounds, cooking and fireplaces, which are all harmful to our health.

Therapy Air® Smart destroys toxic VOCs (volatile organic compounds) such as formaldehyde in less than half an hour. It also removes airborne viruses like SARS-CoV-2.

Controlling indoor air pollutants in our homes, offices, restaurants and gym - and anywhere else that people live, gather, socialize and work, is essential for the prevention of illnesses, better recovery and for maintaining overall health.

References

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- 2. Thomas F Lüscher, MD, FESC; European Heart Journal, Novel cardiovascular risk factors: Air pollution, air temperature, pain, and sleep duration, Volume 40, Issue 20, 21 May 2019
- 3. Jos Lelieveld, Andrea Pozzer, Ulrich Pöschl, Mohammed Fnais, Andy Haines, Thomas Münzel; Cardiovascular Research, "Loss of life expectancy from air pollution compared to other risk factors: a worldwide perspective", Volume 116, Issue 11, 1 September 2020
- 4. **Children and Air Pollution**, https://www.lung.org/clean-air/outdoors/who-is-at-risk/children-and-air-pollution, accessed 15/04/2021
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- 7. Michelle C. Turner PhD, Zorana J. Andersen PhD, Andrea Baccarelli MD, MPH, PhD W. Ryan Diver MSPH, Susan M. Gapstur PhD, C. Arden Pope III PhD, Diddier Prada MD, PhD Jonathan Samet MD, MS George Thurston, ScD Aaron Cohen DSc, "Outdoor air pollution and cancer: An overview of the current evidence and public health recommendations", November/December 2020







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