AIR POLLUTION

world's population lives in places where air pollution exceeds safe limits, according to research from the World Health Organization (WHO).

There were an estimated 6.5 million deaths worldwide from air pollution-related diseases in 2012, WHO data shows. That's 11.6% of all global deaths – more than the number of people killed by HIV/AIDS, tuberculosis and road injuries combined.

6.5
MILLION

4TH

Air pollution is the fourth-largest threat to human health, behind high blood pressure, dietary risks and smoking.

The health risks of breathing dirty air include respiratory infections and cardiovascular diseases, stroke, chronic lung disease and lung cancer.

INDOOR AIR CAN BE UP TO 10 TIMES MORE POLLUTED THAN OUTDOOR AIR.

KNOW THE POLLUTANTS.

$PM_{2.5}$

PM stands for Particulate Matter while 2.5 refers to the size of the particles (2.5 microns or lesser) its tiny size makes it harder to prevent it from getting into the body. It worsens asthma & heart conditions, while causing a runny nose, sneezing and coughing.

Odour

Carpets, trash bins, shoes, pesticides and pungent air sprays are all causes of unpleasant smell resulting in allergic reactions, headaches and discomfort, significantly impacting your welbeing at home and at work

Other Airborne Allergens

Some common examples of airborne allergens are pollen, bacteria, flu virus and mold flowers produce powdery pollen that is easily spread by the wind and causes allergic reactions. Molds are tiny fungi which can be found in living spaces and cause allergic reactions (dermatitis & skin rash), asthma, hypersensitivity and pneumonitis. Contaminated central air handling systems can become a breeding ground for mold, mildew and other sources of biological contaminants like the flu virus, which then spread throughout the workplace.

Tobacco smoke

The effect of smoking inside the car, home or office is retained for a much longer period as it latches on to room/cabin interiors, causing allergic reactions and discomfort.

PM_{10}

PM stands for Particulate Matter while 10 refers to the size of the particles (10 microns or lesser) – much less than the width of a single human hair. It can cause serious health problems by getting into the lungs.

VOCs (Volatile Organic Compounds)

These are hazardous gases containing airborne organic chemical compounds from cleaning agents, disinfectants, paints, adhesives and chemical materials used in indoor furnishings such as carpets, upholstery & mattresses. Common examples include benzene, xylene & aldehydes. Can cause adverse long-term health effects.

Formaldehvde

These are emissions in the form of invisible gases released from paints, solvents and adhesives which enter the indoor environment through furnishings, cooking & construction work. Acute exposure to it can cause eye, nose and throat irritation, apart from other effects such as coughing, wheezing, chest pain and bronchitis.

Gaseous Pollutants

Cooking stoves, tobacco smoke, vehicle exhaust, cleaning products and pesticides are the major sources of gaseous pollutants.

Toxic Gases

Gases such as Carbon Monoxide (CO) enter inside the car when you roll down the windows.

IMPACT ON HUMAN HEALTH



Frequent Headaches



Asthma Attacks



Increased Allergy



Respiratory Complication



Cardiovascular Disorders

IF YOU HAVE A PARTICULAR LIFE STYLE OR AT A PARTICULAR LIFE STAGE AS MENTIONED BELOW, YOU MUST EVALUATE USING AN AIR PURIFIER.















FREQUENTLY ASKED QUESTIONS

Do I need an air purifier?

Yes, in India most indoor environments need an air purifier especially those which have children, elderly people, pregnant women and pets. Studies show that indoor air is 4 to 5 times more polluted than outdoor air. The deteriorating air quality is the main cause behind the ever increasing cases of respiratory diseases and lung cancer.

How does an air purifier help?

Air purifier removes pollutants found in indoor air with more than 99% efficiency making the air healthy & breathable.

What are the types of indoor pollutants?

Common indoor pollutants are Particulate matter (PM_{2.5}, PM₁₀), pollen, bacteria, viruses, microscopic allergens, formaldehydes, volatile organic compounds, dust, pet dander and human hair.

What is $PM_{2.5}$?

PM_{2.5} is a microscopic matter with a diameter of less than 2.5 micrometer. Presence of these particles in large numbers is a serious concern for people's health. These particles are so tiny that they can directly invade into the lungs and may cause cancer as well.

When should I use an air purifier?

Since on an average we spend 80% of our time indoors, an air purifier is not a seasonal product. It can be used all year round to breathe air that is free from harmful pollutants.

How much noise does an air purifier produce?

An air purifier operates between 23 – 50dB noise level, which is less than the sound of an air conditioner even at the highest fan speed.

What is the best place to keep an air purifier inside a room?

To ensure optimum circulation of pure air inside your room, keep the purifier 30 cm away from the wall. Honeywell Air purifiers release air at an angle of 15° -20° to create optimum air flow inside your room to clean air even from the farthest corners.

What else should one look for in an air purifier?

Design plays an important role in the overall functioning of the device. Check if the unit has an anti-fall design that protects it from getting damaged against an accidental push. Also ensure that the design is such that it has a 3 dimensional air intake and the filters are not exposed from any side.

Do I need a separate air purifier for each room?

Ideally yes, much like the air conditioner in the house since one air purifier cannot serve the entire house from one place. However, since the device is portable it is feasible to use it for some time in one room and move it to another room once the air quality is shown to be under acceptable limits on the air quality indicator.

ROOM SIZE

The room size will determine as to what kind of air purifier you need (ranging from compact to bigger ones). It is advisable to go for a product that is designed bigger as compared to the size of the room. Don't just go by the room area mentioned on the product, consider room height while choosing an air purifier. For example, it will be effective to buy an air purifier which can cater to a 450-500 sq feet room if the size of the room is 300 sq feet with room height of 9ft.

PERFORMANCE

CADR stands for clean air delivery rate which means the CADR level will show you how much clean air is coming out of the purifier and how quickly the product functions. Higher the CADR, better is the air filtration capacity of the air purifier.

TECHNOLOGY

Technology is a critical parameter to look at while selecting a product. There are products available with both active & passive filtration technology. Active technology products releases elements into air to ionize the pollutants that might lead to ozone generation whereas passive technology products are media based filters that arrest and adsorb the pollutants without releasing any ozone making them a better option to consider while buying the product.

FILTERS

Filter must be equipped to remove pollutants like pollen, dust, smoke, odour and other harmful substances from the air. HEPA (High Efficiency Particulate Air) filters are most effective as they are tested and certified. The device should also have a pre-filter which can remove large particles from the air at the initial filtration stage. One should consider the cost of replacing the filters, as it is recurring and can be huge. The life of filters plays a crucial role as well. Hence the customer should compare the yearly cost of filters rather than per filter cost.

PORTABILITY

A small air purifier can also have the ability to clean a big room effectively. Don't go by the size and weight as a big air purifier will be costlier and can take up a lot of room space.

NOISE AND ENERGY CONSUMPTION

It is recommended to go for an air purifier which produces less noise so that it doesn't disturb your sleep. Also, it should go easy on energy consumption so that it is light on the pocket.

AIR CHANGES PER HOUR

ACH determines how quickly and often the air purifier can clean the room in an hour. In the level of pollution we have in some cities, opt for a product which offers four ACH as the air purifier needs to constantly clean the air every 15 minutes (4 times in an hour).

INDOOR AIR QUALITY INDICATOR

There should be a LED based color change indicator on the device. It changes color depending upon the air quality inside the room and adjusts the fan speed automatically. Some models also have a numeric display of $PM_{2.5}$ level that helps measure the quality of air on a real time basis.