



EXPERT TAKE

CAN'T BREATHE EASY!

Pune's air is getting worse by the day. Here's why...

The air we breathe is not safe! Yes, you read it right. Due to an increase in the number of vehicles on city roads and resulting black smoke emissions, the air quality of Pune is deteriorating. Another factor that makes the problem worse is open waste burning.

Some of us may be scanning through weather or climate apps on our smartphones when we see that the air quality index is 104. The average person might not grasp what it implies, but others will be shocked by the number given that a safe index is 50 or below, and this is far more than the permissible limit!

My sister lives in Milton Keynes in the UK which has an air quality of 2 AQI. So one can imagine how unpolluted the air must be that we breathe!

In Malaysia, when the air quality would hit 100, schools would close down; we would shut all windows



and turn on the air purifier as children and senior citizens are the most vulnerable to polluted air. Asthma and heart patients might see even further damage to their health.

We in Pune are at 104 AQI, which is moderately polluted, and even see 250 AQI – highly polluted and go about our business with our children, elderly, asthma, and heart patients unprotected as if all is hunky dory. Our exposure to such a hazard can and will cause permanent damage to our health.

Killer agents and the risk factors

- Major air pollutant is carbon monoxide, produced from incomplete combustion of fuel, burning of household and industrial waste in the open and forest fires.
- Vehicular emissions are notoriously high in Pune. Black emissions bellowing from PMPML and ST buses, autorickshaws, tempos and trucks are full of carbon and nitrogen oxide pollut-

ants. When exposed to too much carbon monoxide, our body replaces oxygen in red blood cells with carbon monoxide. This can even lead to serious tissue damage or even death.

- Burning of waste in open land by residents, and shop owners also adds to the problem. The smoke from burning waste containing plastic, rubber, wrappers, garden waste, etc., is highly carcinogenic
- In Pune, the cumulative risk of lung cancer has been the second highest source of cancer at 0.6., as reported by the Pune Cancer Registry in its 2010 study. This could be even higher now. Besides reducing the quality of life, CO pollution can lead to higher mortality rates.
- The current concentration of PM2.5 in Pune is 18 $\mu\text{g}/\text{m}^3$. The World Health Organisation (WHO) recommends 15 $\mu\text{g}/\text{m}^3$ as the threshold concentration, after this, there will be permanent health damage.

The way forward

- There are two simple mantras to

reduce Pune's air pollution – strict discipline and stern action against those contributing to the burning issue.

- Adapt to a healthy lifestyle. Aarpools and the use of public transport can reduce the problem. PMC can replace old buses with new EV buses. The civic body and the police department can initiate a joint operation to penalise those damaging the environment.

India continues to remain one of the most polluted nations in the world, with pollutant levels several times higher than recommended limits. The air quality in most of the Indian cities, including Pune, has been plummeting over the years due to several reasons. And before the situation goes out of hand, it is a must for all to take individual responsibility to end the problem at the source and gift the cleaner air to the next generation.

—Prof. Dr. Priti Mastakar
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