

**OXY99 PURE MEDICAL OXYGEN “A LIFE SAVER”**  
**(AS PER Indian Pharmacopoeia IN PORTABLE OXYGEN CYLINDERS/ CANS)**  
**CORPORATES/ BUSINESS HOUSES/ CALL CENTERS**

**Subject: OXY99 “PURE OXYGEN FOR CORPORATE OFFICES, CALL CENTERS & CLOSED AREAS**

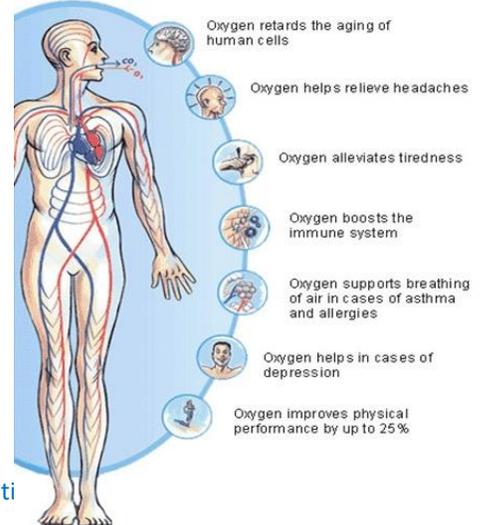
Dear Sir,

As you are aware that high level of pollution in the city crossing DANGER MARK, there is actual shortage of OXYGEN in people working in the corporate offices, call centres and closed areas.



**What is OXY99:**

- OXY99 is a portable 99% pure oxygen can
- OXY99 weigh only 100gms
- OXY99 has 6ltrs of oxygen
- OXY99 is highly useful in pollution
- OXY99 is highly useful in SOS & standby for respiratory conditi
- OXY99 will instantly increase the oxygen level in the body.
- OXY99 Meets the requirements of Indian, American and European pharmacopoeia
- OXY99 has been launched worldwide across OVER 50 COUNTRIES .
- OXY99 can be used by directly inhaling oxygen as a spray/inhaler and can also be connected to a specially designed oxygen mask for easy breathing on the go.



**REASON OF LOW OXYGEN LEVELS**

- Pollution
- Recirculation of stale air
- High level of CARBON MONOXIDE and CARBON DIOXIDE
- Due to lack of OXYGEN in the human body it is not only a SLOW KILLER but give rise to many diseases linked with LUNGS, HEART and BRAIN

**HOW LACK OF OXYGEN CAUSES INEFFICIENCY IN WORKING**

- People fall sick when they breath stale poisonous air
- Cause fatigue and lethargic
- Causes wheezing, coughing and allergies

**ADVANTAGES OF OXY99:**

- Work Efficiency will **INCREASE** by **40%** to 300% as per study
- People will feel **FRESHNESS AND ENERGY**
- OXY99 will help to recover from ill effects of **SMOG & AIR POLLUTION.**
- OXY99 will provide relief from **MENTAL AND PHYSICAL STRESS.**

**Recommended Dosage**

<b>Level 1</b> Highly Dangerous	3 to 5 OXY99 cans per month
<b>Level 2</b>	2 to 3 OXY99 cans per month
<b>Level 3</b>	1 to 3 OXY99 cans per month

## POISON IN YOUR AIR

Delhi's air is at its worst in years, but how do you protect yourself and make sense of the readings? TOI clears the air on terminology

**CO**

**What** Carbon monoxide (CO) is a colourless, odourless gas that can be harmful if inhaled in large amounts. It's released when something is burned

**Why dangerous** Breathing a very high concentration of CO reduces the amount of oxygen that can be transported in the blood stream to organs like the heart and brain. At very high levels in enclosed environments, CO can cause dizziness, confusion, loss of consciousness and death. Exposure to very high levels of CO in outdoor air can lead to discomfort or pain in the heart

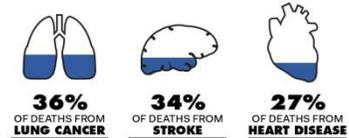
**From where** The greatest sources of CO in outdoor air are vehicles or machinery that burn fossil fuel

**What to do** Control tailpipe emissions, bring new vehicle technologies and clean up fuel. Also take steps to check incomplete combustion of oil, coal or wood

**TOMORROW: S02**

## THE INVISIBLE KILLER

Air pollution may not always be visible, but it can be deadly.



**BREATHELIFE.**  
Clean Air. Healthy Future.



## Outdoor Pollution Effects

**Harms from High Pollution**

- Slower development of lung function
- Asthma
- Start of atherosclerosis

**Harms from High Pollution**

- Smaller head
- Lower birth weight at term

**Harms from High Pollution**

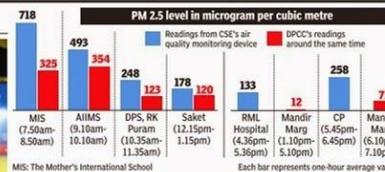
- Accelerated decline in lung function
- Accelerated decline Asthma
- Type 2 diabetes
- Poor cognition
- Heart attacks, heart failure & strokes
- Lung cancer

# Air at public places badly polluted

TOI Ties Up With CSE For Reality Check At School, Hospital & Mall With Shocking Results

Jayashree.Nandi @timesgroup.com

## CHECKING IT OUT



MIS: The Mother's International School

Each bar represents one-hour average value

## REAL-TIME MONITORING

- Sensitivity of the air pollution monitoring device: .001 to 150 mg per cubic metre
- The objective of the study was to assess the real-time pollution situation in sensitive areas of Delhi—near schools and hospitals
- The city was visibly smoggy early morning when children usually go to school and the inversion condition was at maximum
- The PM 2.5 levels near The Mother's International School on Aurobindo Marg on Outer Ring



PM2.5 SAFE LEVEL 60 micrograms per cubic metre per day

- Road were the highest recorded for the day
- The overall levels started to reduce as the day became warmer and smog lifted. But even then the real-time pollution levels in each location were much higher than official readings
- The pollution monitoring laboratory of CSE has used TSI DustTrak DRX Aerosol Monitor 8533 for monitoring
- Though government agencies have expressed reservations about this type of monitoring, such

New Delhi: The air you are breathing through the day may be far worse than what the government's pollution monitoring tells you. Because we often spend long hours near emission sources—on footpaths, along heavily congested roads, in an autorickshaw in peak traffic and even in parks during morning walks.

To assess what our real exposure may be like, TOI in association with Centre for Science and Environment (CSE), spent a day monitoring hourly PM2.5 (fine, respirable particles) on CSE's portable air quality monitoring device in front of schools, hospitals, shopping areas and traffic cop-booths.

The idea was to understand what kind of air pollution levels children on their way to schools or patients outside hospitals may be exposed to. The hourly PM2.5 averages logged at these locations were compared with the ambient air quality monitored by Delhi Pollution Control Committee (DPPCC)'s monitoring stations near the locations.

The results were very disturbing — outside Mother's International School on Aurobindo Marg, for instance, the average for 8 am to 9 am was 718 micrograms per cubic metre! While there is no official safe standard for an hourly average, the 24-hour average for PM2.5 in India is about 60 micrograms per cubic metre. The machine—TSI DustTrak DRX Aerosol Monitor 8533—showed peaks up to 800 micrograms per cubic metre, about 13 times the daily standard. During the same period, DPPCC's RK Puram monitoring station recorded an hourly average of just 325 micrograms per cubic metre.

Inside All India Institute of Medical Science (AIIMS)

campus, between 9.10 am and 10.10 am, the hourly average was 493 micrograms per cubic metre. Considering that patients with low immunity go to the hospital, they may be exposing themselves to more complications in such conditions. Curious patients looked at the device and wanted to know what it does. Krishna Vishwas, an IGNOU student who came for her mother's treatment, was one of them. "We are from Nainital. My immunity has gone down dramatically over the years. I have acute sinus problems and get tired easily in Delhi. Even if I go for a couple of days to Nainital, I get better. It has to be the air!" she said.

Suresh Chandra Gupta (74) from Uttarakhnad also moved to Delhi to live with his son but has been suffering from severe respiratory issues. "I can't breathe often,

My lungs seem to blow up, especially in winter. Only patients like us know how polluted Delhi is," he said.

At the traffic post outside AIIMS, a traffic cop had a handkerchief tied around his nose. He has kidney stones and respiratory problems. "I am only 25. After I joined this job last year, I started falling terribly sick. I am using the handkerchief as a mask. My family is worried for me," he said declining to be named. Traffic staff most often work outdoors from 8 am to 8 pm. Other cops complained of a burning sensation in eyes and episodes of severe cough.

As it got warmer and sunnier, PM 2.5 concentrations started plunging. At RK Puram, in front of Delhi Public School, the hourly average was 248 micrograms per cubic metre and later at Saket, in front of a shopping mall, the

concentration was about 178 micrograms per cubic metre.

The exercise of monitoring exposure levels through the day also revealed the diurnal variation in pollution levels with air quality improving considerably in the afternoon (1 pm to 4 pm), especially if it is sunny and warm. The air

## TOI AGAINST POLLUTION

quality started declining once again after 4.30 pm. This exercise also revealed that areas with a smooth but less vehicular traffic can have relatively much better air quality. In front of Dr Ram Manohar Lohia Hospital, for instance, traffic flowed smoothly. Here, the PM 2.5 concentrations ranged between 100 and 180

micrograms per cubic metre, far lower than other locations.

Government pollution monitoring agencies have claimed that such exposure monitoring may be "unscientific" as such devices are mainly meant for "industrial" projects and that there is no official standard for hourly readings. "Both pieces of information are valuable. The legal standard is indeed based on daily average concentrations measured at a fixed location. As our research demonstrates, air pollution levels in Delhi vary substantially with time and place, depending on where one is. In many localities, like in traffic, particulate matter levels are much higher than what official monitors indicate," said Joshu Apte of Lawrence Berkeley National Laboratory, who has done similar research in Delhi. "Delhi and other cities

will need to look at new emerging low-cost but advanced sensor-based monitoring equipment. These are expected to become the gamechanger in air quality monitoring globally to bridge the gap in data available to citizens and assess personal exposure to pollutants that enhance health risk," said Anumita Roy Chowdhury, head of CSE's clean air campaign who advised TOI on the day-long exposure monitoring.

Ramakant Sahu, research scientist, Pollution Monitoring Laboratory, and research associate Shirin Bithal at CSE carried out the monitoring. DPPCC's data analysis was conducted by Vivek Chattopadhyay, Programme Manager, CSE's clean air programme. (The choice of sites was random and intended only to create awareness)

## DELHI VS THE REST

How Delhi's schoolchildren compared on various health indices with counterparts chosen from 17 schools in the rural areas of Uttarakhand and West Bengal:

### REDUCED LUNG FUNCTION

DELHI	ELSEWHERE
43.5%	25.7%

### IRRITATION IN EYES

DELHI	ELSEWHERE
15%	4.0%

### BEHAVIOURAL ISSUES\*

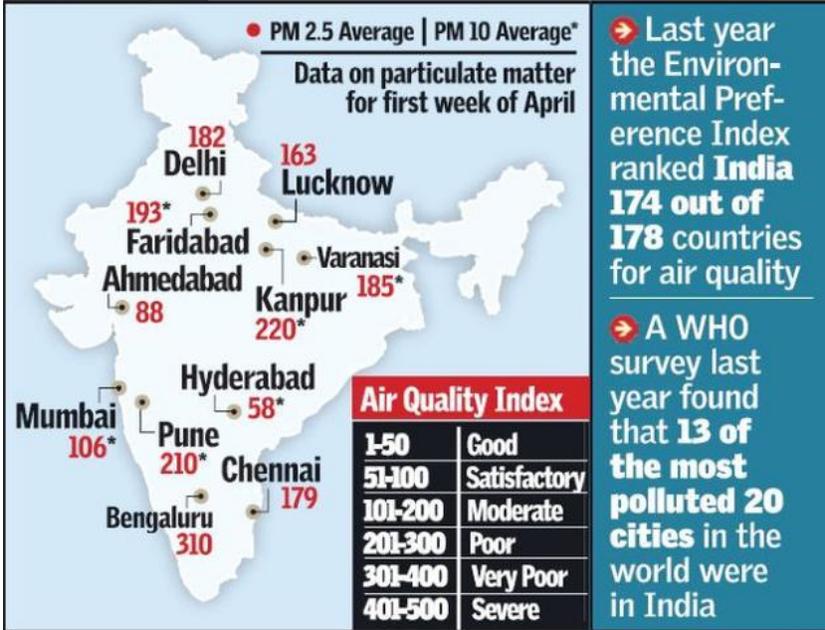
DELHI	ELSEWHERE
6.7%	2.7%

### HYPERTENSION

DELHI	ELSEWHERE
6.2%	2.1%

## TOXIC SKIES

## AIR QUALITY IN INDIA'S MAJOR CITIES IS FAST DETERIORATING



## CAPITAL BREATHES UNEASY

Tops global cities with worst air pollution



- NEW DELHI, INDIA
- BEIJING, CHINA
- CAIRO, EGYPT
- SANTIAGO, CHILE
- MEXICO CITY, MEXICO

### INDIA SLIPS IN RANK TOO

Is second most polluted among its neighbours

	2014	2010
Bangladesh	169	139
India	155	123
Pakistan	148	125
Nepal	139	38
China	118	121
Sri Lanka	69	58

■ Ranking based on 9 parameters: Health impact, air pollution, water & sanitation, water resources, agriculture, fisheries, forests, biodiversity & habitat, climate change & energy

■ On list of 178 countries, India ranks as low as 174 on air pollution, 127 on health impact

5 CLEANEST COUNTRIES: Switzerland, Luxembourg, Australia, Singapore and Czech Republic

## 'In 10 yrs, Delhi air will be world's deadliest'

Kounteya Sinha  
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London: In another 10 years, Delhi will record the world's largest number of premature deaths annually due to air pollution among all megacities in the world. By 2025, nearly 32,000 people in Delhi will die solely due to inhaling polluted air.

However, it will be Kolkata that will record the highest number of such deaths annually by 2050. Kolkata will see the number of premature deaths spike between 2025 and 2050 and will record 54,800 deaths due to air pollution — more than Delhi (52,000) and Mumbai (33,100).

Together, these three cities topped the list of premature deaths due to harmful particles like PM2.5 and O3 in the air. Annually, 3.3 million

## DEATH BY BREATH

PREMATURE MORTALITY (DEATHS PER YEAR) IN THE MOST POLLUTED MEGA CITIES



people worldwide die prematurely from the effects of air pollution. This number will double by 2050 to 6.6 million if

emissions continue to rise, according to a team of scientists at the Max Planck Institute for Chemistry in Mainz.

In 2010, 75% of such mortality occurred in Asia — 1.4 million in China and 650,000 in India.

## AIR POLLUTION IMPACT

■ Dust, soot, fly ash, diesel exhaust particles etc. which are suspended in the air lodge in the lungs and can trigger respiratory tract infections

■ The small particles in the polluted air can even penetrate the bloodstream

■ The particles also impair immune function, which causes infections to occur, resulting in asthma

■ People who already suffer from asthma have different triggers that set off problems in the major airways of the lungs,

making breathing even more difficult

■ A pollutant like sulfur-dioxide causes the constriction of smaller airways in the lungs and makes breathing harder even for healthy people

■ When it comes to pollen allergies, the introduction of pollen into the nasal passage cause rhinitis, or the inflammation of mucus membranes. This leads to a running nose, itching sensation and other such symptoms

## Air quality still in 'dangerous' territory

TIMES NEWS NETWORK

New Delhi: Despite the weather having cleared in the past few days, Delhi's air quality index has continued to remain in the 'severe' category, indicating that there has been no reduction in pollutants over the city. Thursday's AQI was down to 408 from Wednesday's 424 but experts say there is little reason to cheer since even this level is highly dangerous.

The Met department said that Friday and Saturday would see another build-up of smog, but it would be temporary. "The

weather will remain dry but we expect moderate to shallow fog over Haryana, Delhi and UP," said a Met official.

Dr D Saha, additional director of CPCB said that it was imperative that no further pollution be added to the air. "Because of the wind pattern, crop burning in Haryana and Punjab will lead to more pollution in the capital," he said.

The Met department has predicted a gradual rise in minimum temperatures by 2-3 degrees Celsius over northwest India during the next 48 hours.

Capital has more toxic particles in its air than other major Indian metros

# DELHI IS INDIA'S ASTHMA CAPITAL

DELHI has the highest levels of Respirable Suspended Particulate Matter (RSPM) among the four metros, exposing its residents to a greater risk of asthma than people elsewhere in the country.

By Meenal Dubey in New Delhi

RSPM was recorded at a shocking 149 microgram, according to a report published by the Central Pollution Control Board (CPCB) with the help of data collected between January and August 2006.

This is well above Member's RSPM mark of 110 microgram, Kolkata's 104 mg, in the annual average.

It is no secret that India's capital is highly toxic (see on) annually. In 2008, Delhi's

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