

The Times of India

Title : Masks won't work against Delhi's pollution: Experts

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Location :

New Delhi:

Article Date : 06/08/2015

Gagandeep Singh Sapra and his wife Harpreet, both avid cyclists, used to cover 40km every day till about a year ago. Now they barely cycle 40km in a week--both have developed allergic asthma that makes it difficult to do any activity involving exposure to polluted air. When their passion takes over, they cycle with masks on.

Delhi's severe air pollution is making cyclists, those who work outdoors or have respiratory conditions desperate for a personal protection. Those who can afford are using masks, those who can't are using handkerchiefs. Masks are only a partial protection though.

Recently the amicus curiae on a petition against air pollution in the Supreme Court submitted a list of suggestions, including mandatory use of masks if air pollution is 'severe' for two consecutive days. However, Dr T K Joshi, director of Centre for Occupational and Environmental Health (COEH), has replied that a mask is different from a respirator, a more sophisticated device. He said masks don't offer any protection against nitrogen dioxide, ozone, sulphur dioxide and gaseous vapours such as benzene, 1, 3 butadiene which can be carcinogenic, depending on exposure. Levels of many of them are quite high in Delhi. Masks may create a false sense of protection and the poor can't afford them or replace them repeatedly, he added.

Only N95 masks and certain respirators do offer protection against PM2.5 but they are often not manufactured for kids who are most vulnerable or prolonged use may lead to discomfort in breathing.

Nevertheless, many Delhiites, who don't want to cut down on physical activities, are often opting for these masks. "Our doctors told us that allergic asthma is linked to air pollution. Both of us are over 40, our immunity isn't great. After my wife was hospitalized recently, we knew that we can't continue cycling for long. We have tried masks but I guess we were already too exposed," said Sapra, founder of Green Pedals, a cycling group.

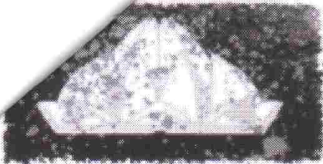
Rahul Goel, who has bronchial asthma and rides a bike to work, used simple surgical masks during bad days. "I did find it useful. I have run out of them and now use a handkerchief." His doctor has recommended a wet handkerchief.

Swapnil Mathur, who works with a production house, also has asthma but can't stop cycling. "I have asthma since childhood but my inhaler usage has jumped up to one every two weeks. Doctors have told me if I cycle early mornings, I will end up in hospital."

Marcus Santiago, a comic book artist who used to cycle regularly, said that even before the WHO alert, the cyclists in the city could feel that air pollution had gone up. "Those outdoors regularly can feel it."

He finds masks uncomfortable.

Dr S K Chhabra, head of cardio-respiratory physiology at Vallabhbhai Patel Chest Institute, recommends masks to patients working in dusty conditions. "Mask filters only particulate matter, so theoretically it is effective only for some people."

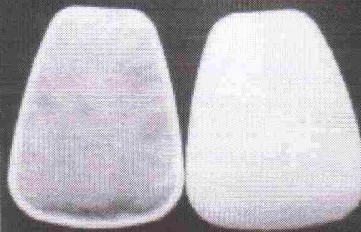


LET DELHI BREATHE

MASKING THE REALITY

What Centre for Health Protection, Govt of Hong Kong Special Administrative Region says

- People should reduce outdoor physical exertion and outdoor stay on high-pollution days. If outdoor physical exertion is unavoidable, they may use masks
- Common masks (such as surgical and N95 masks) are not useful in blocking gaseous air pollutants such as carbon monoxide, nitrogen dioxide, ozone and sulphur dioxide
- Surgical masks may filter larger particles in the air, but



SEE THE DIFFERENCE: Mask filter on the left used in Delhi for three days while the other is fresh

- studies show they are not effective in filtering even particulate matter (PM) of less than 10 microns
- Efficiency of N95 masks to filter PM depends on whether they are fitted properly

What British Heart Foundation, a UK-based heart charity, says

- Little evidence to recommend use of facemasks
- Many particles are too small to be filtered out by a mask
- Research carried out in Beijing suggests wearing a highly efficient mask may help to reduce harmful effects of air pollution in people with coronary heart disease
- Wearing a mask can be uncomfortable and may make breathing difficult