



Unveiling the Health Crisis of Urban Smog

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With the industrial growth and urbanization in large cities of Pakistan, the smog has become a lurking adversary amidst the haze impacting millions of people every winter season. Pakistan ranks at number 3 in the countries with poor air quality as of 2019, the main reason of which is the persistent smog. It is formed the presence of severe atmospheric pollutants suspended in air which gives it a yellowish black dense appearance. These pollutants mainly originate from industries due to the burning of fuels in industries, and from automobile exhausts due to the release of harmful gases such as ozone, nitrogen oxides and sulfur oxide along with the particulate matter such as dust and volatile compounds in air. It not only reduces visibility and obscures the skyline but is known to have serious implications for human health. Various studies associate smog with the respiratory and eye infections, allergies, and lungs cancer. The particulate matter present in the smog such as PM10 reach the lower levels of the respiratory tract and is responsible for irritation and allergies. Moreover, they carry other harmful materials, such hydrocarbons and poisonous gases with them as well that enter the blood stream via gaseous in alveoli [1]. The constituents in smog have been reported to elevate the risk of adenocarcinoma and squamous cell carcinoma in lungs in the people with chronic respiratory conditions. People from all age groups are affected with the youngest and immunocompromised individuals more susceptible to perilous effects of smog depending upon the time of exposure. Apart from respiratory system, there are various reports which link smog with the cardiovascular system issues as well. Researchers from the US Environmental Protection Agency (EPA) have proved the long-term exposure to PM2.5 can result in myocardial infarction and decreased life expectancy [2]. A number of multifaceted strategies are required to address this health crisis. Regulatory policies for the controlled emission of harmful matter in the air, and plans for the introducing cleaner technologies may prove beneficial to mitigate this risk and improve the overall air quality. Public awareness is equally critical to equip general masses with the knowledge about the adverse effects of smog and ways to prevent them. Smog is not merely an environmental concern, it's a public health emergency which demands urgent attention. It's a collected responsibility of policy makers and communities to revitalize the urban environments steering towards healthier tomorrows.

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