

Suspended people  
are asthmatic  
because of emission  
of



**ASSIGN  
BUSTER**

Suspended particulate matter (SPM) Oxides of nitrogen (NO<sub>x</sub>) Hydrocarbons (HC) Polynuclear aromatic hydrocarbons (PAHs) 2005 Air Toxic Emissions from On-road Mobile Sources (Tox-weighted) Affects of Automobile Pollution

1.

In India about 15-20 million people are asthmatic because of emission of automobile pollution. 2. NO<sub>2</sub> is a highly toxic gas and attacks the lungs causing lung cancer and emphysema.

3. Automobile pollutants interfere the development and functioning of the nervous system. 4. Some diseases such as bronchitis, pleuritis occur by long-term exposure to the particulate matter. 5. NO<sub>2</sub> reacts with hydrocarbons and creates photochemical smog.

Reasons for Automobile Pollution The petrol driven vehicles emit invisible gases such as CO and Benzene while diesel driven vehicles emit mainly black smog containing minute carbon particles and SO<sub>2</sub>. The main reasons for vehicular pollution problems are as follows- 1.

Poor quality of fuel 2. Outdated vehicles 3. Congestion and mixed traffic of different types 4. Lack of proper traffic management Important Pre-requisites for Controlling Vehicular Pollution 1.

Phasing out of grossly polluted vehicles 2. Enforcement of emission norms for new and in-use vehicles 3. Improvement in automobile technology 4. Reduction of lead content in motor fuel 5.

Stream lining traffic management 6. Improvement in public transport system 7. Fuel quality improvement and switch over to cleaner fuel 8. Restriction on

indiscriminate growth of urban centers, industrial and commercial activities

Alternative Fuels Hydrogen Gas: It can be used in modified combustion engines and is eco-friendly as it emits water vapours only.

Electric Vehicles: They are advantageous over conventional fueled vehicles as far as environment is concerned. Ethanol: It can be used in regular automobiles after blending with petrol. It is rather clean fuel with low nitrogen oxide and hydrocarbons emission and no net CO<sub>2</sub> emission.

Methanol: It is a liquid fuel and is produce from coal, natural gas and biomass. It emits very little NO<sub>x</sub> and HC. Natural gas: It exists in the gaseous state at normal temperature and pressure and is found in the form of CNG and LPG. It causes substantially lower pollution without affecting the performance of the vehicles.