THE IMPACT OF ATMOSPHERIC AIR POLLUTION ON HUMAN HEALTH

Ikramova N. A.
Axmedova R. D.
Tashkent Medical Academy, Tashkent, Uzbekistan

Nowadays, air pollution is considered one of the global environmental problems. The contribution of vehicles to pollution is a serious issue that is being discussed in every country. The amount of carbon dioxide (CO2), nitrogen oxides (NOx) and other harmful substances emitted by vehicles is increasing every year. According to the International Energy Agency (IEA), the transport sector accounts for about 24% of global greenhouse gas emissions.

The intensity of atmospheric air pollution is increasing due to the increase in traffic in urban areas. This situation causes not only environmental, but also economic and social problems. According to estimates by the World Health Organization (WHO), diseases caused by air pollution shorten the lives of millions of people every year. In particular, the risks associated with respiratory and cardiovascular diseases are increasing.

In the case of Uzbekistan, the problem of the increasing number of cars is also relevant. Air quality has significantly deteriorated in the capital Tashkent and other large cities. Vehicles are noted as the main factor in atmospheric pollution. This problem has a negative impact not only on the ecological environment, but also on economic development. Therefore, the issue of reducing harmful gases emitted by vehicles, developing and implementing sustainable development strategies is one of the most important tasks today at the global and national levels.

Main harmful substances emitted by vehicles. Cars emit various harmful gases into the atmosphere, the most common of which are:

Carbon dioxide (CO2): CO2 is mainly produced by the complete combustion of fuels. It is considered one of the main factors of global warming. Each year, the transport sector accounts for a large share of global CO2 emissions (about 14%). This leads to an increase in the average temperature of the Earth due to the effect of greenhouse gases.

Nitrogen oxides (NOx): The main source of NOx is internal combustion engines. Nitrogen oxides react with oxygen and carbon monoxide in the air to form smog and acid rain. NOx is also harmful to human health, and its entry into the body can lead to respiratory diseases, such as asthma and bronchitis.

Hydrocarbons (HC): Hydrocarbons are another important pollutant emitted by vehicles. They are formed by the improper use of gasoline and diesel fuels or by poor engine cleanliness. Hydrocarbons react with ozone in the air to produce photochemical smog, which has serious effects on the respiratory system.

Carbon monoxide (CO): Carbon monoxide is produced in an oxygen-free environment, mainly from incomplete combustion of fuel. These substances are dangerous and can affect the cardiovascular and respiratory systems, causing problems such as heart disease and headaches.

- According to the World Health Organization (WHO), air pollution causes approximately 7 million deaths each year.
- The transport sector accounts for approximately 14% of global greenhouse gas emissions.
- Transport contributes up to 60% of air pollution in Uzbekistan's cities, leading to significant deterioration in air quality, especially in large cities such as Tashkent, Samarkand, and Bukhara.

On this basis, effective measures are needed to reduce harmful emissions from motor vehicles. These should include initiatives such as the widespread introduction of environmentally friendly vehicles and improving the transport system.

Conclusion:

The results of the study showed that motor vehicles have a significant impact on atmospheric pollution. The introduction of electric vehicles and the modernization of existing vehicles based on environmental requirements can be an effective way to find a solution to this problem.

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