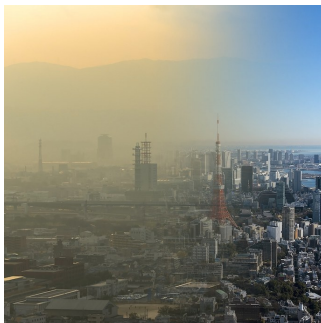

Air Pollution, Depression Linked with Heart Disease Deaths



A comprehensive study conducted in more than 3,000 US counties with 315 million residents suggests a connection between air pollution and stress and depression, putting individuals under 65 years old at increased risk of dying from cardiovascular disease. The findings, unveiled at the ESC Preventive Cardiology 2024 congress by the European Society of Cardiology (ESC), underline the intricate relationship between environmental factors and public health outcomes.

Lead author Dr. Shady Abohashem from Harvard Medical School in Boston, USA, highlights the impact of air quality on mental wellness, which in turn influences cardiovascular health.

Global data from the World Health Organization indicates that air pollution contributed to an estimated 4.2 million premature deaths worldwide in 2019. Concurrently, mental health disorders have been associated with increased mortality rates. This investigation delved into the potential intersection of air pollution, mental health, and their combined effect on premature cardiovascular mortality.

The study evaluated fine particles, PM2.5, emitted from various sources such as vehicle emissions, industrial activities, and biomass burning, which are known for their adverse health effects. Researchers used county-level data on PM2.5 concentrations from the Centers for Disease Control and Prevention (CDC) and statistics on mental health indicators, including stress and depression rates, researchers categorised counties based on pollution levels and mental health prevalence.

Study findings show counties with elevated PM2.5 levels were associated with a 10% increase in reported mental health issues compared to those with cleaner air. This risk was particularly pronounced in counties with higher concentrations of minority groups or poverty.

The correlation between mental health problems and premature cardiovascular mortality was most pronounced in counties with excessive air pollution levels, exceeding WHO standards. In such areas, individuals facing higher levels of psychological distress exhibited a threefold escalation in premature cardiovascular deaths compared to those with lower mental health burdens. A substantial portion of the increased cardiovascular risk associated with pollution could be attributed to exacerbated mental health issues.

Dr Abohashem highlights the dual jeopardy posed by air pollution: exacerbating mental health challenges while significantly increasing the risk of heart-related deaths linked with poor mental health. He stressed the need for urgent public health interventions to address air quality and mental well-being, safeguarding cardiovascular health.

Source: [ESC](#)

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