

Beijing air quality critical for Olympians

Air pollution levels in Beijing during the Olympics could be over three times the amount deemed safe by the World Health Organization, causing health problems and affecting the performance of endurance athletes

Pollutants that affect performance



Particulate matter (PM₁₀ and PM_{2.5}): Vehicle emissions, coal dust from power plants. *Particles penetrate trachea and lungs – can pass into bloodstream. Linked to stroke, Alzheimer's and cardiopulmonary diseases and cancer*



Ozone: Photochemical smog formed by action of ultra-violet light on nitrogen oxides.

Directly affects lungs, respiratory tract and eyes, increasing susceptibility to inhaled allergens – at high levels can cause oedema (fluid in lungs)



Carbon monoxide: Vehicle emissions. *Binds to haemoglobin in bloodstream, stops transport of oxygen to cells*



Sulphur dioxide: From burning fossil fuels and heavy oil. *Combines with water to form sulphuric acid. Causes inflammation of respiratory tract*



Nitrogen dioxide: Vehicle emissions. *Irritates lungs, lowers resistance to respiratory infections*

Particulate matter: July 1-7, 2008
PM₁₀ – micrograms per cubic metre*

