THE CLEAN BREATHING INSTITUTE

THE GLOBAL BURDEN OF AIR POLLUTION

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WHAT IS AIR POLLUTION?

Air pollution is a **complex mixture of particles and gases** originating primarily from human activities but also derived from natural sources.[1]

Particulate matter (PM) is used as an indicator of air pollution and is a mixture of particles suspended in the air. The **composition of PM can vary significantly**, and may include biological materials, metals, organic chemicals and gases.[1]

PM is classified by size into coarse PM (PM_{10}), fine PM ($PM_{2.5}$) and ultrafine PM (Figure 1).

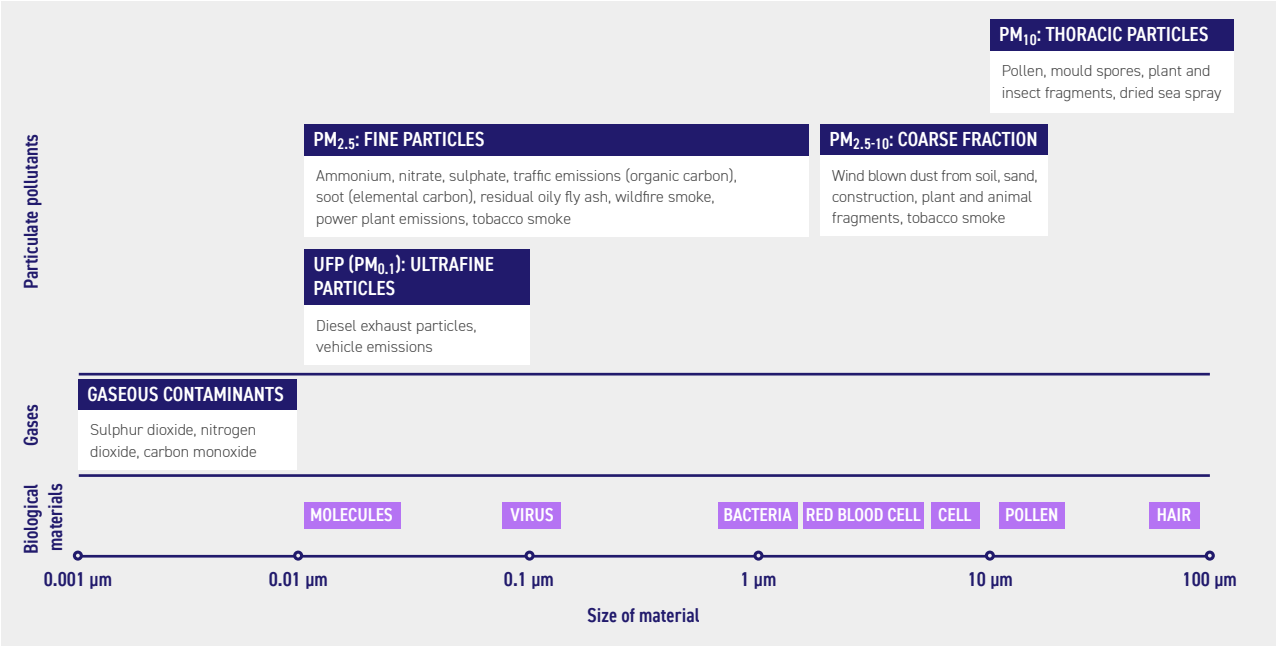

FIGURE 1. PARTICULATE MATTER SIZE DISTRIBUTION[2-9]

WHAT IS THE GLOBAL BURDEN OF AIR POLLUTION?

Air pollution is a public health emergency, with **over 80% of people living in areas where air quality does not meet WHO guidelines**.[10,11]

Globally, **air pollution is increasing**, and levels are typically highest in regions such as the eastern Mediterranean and South-East Asia.[12] Although levels of air pollution are decreasing in some countries, substantial challenges still remain.[12]

WHAT ARE THE HEALTH RISKS LINKED TO AIR POLLUTION?

Air pollution is estimated to cause around **6.5 million premature deaths** per year.[11] Fine and ultrafine PM are associated with **significant health risks** as they can travel deep into the airways.[1]

Exposure to air pollution can lead to development of disease and worsening of existing conditions, including **chronic obstructive pulmonary disease** and **ischaemic heart disease**.[10] Air pollution is also implicated in other **upper respiratory tract conditions**, **skin and eye disorders**, and **low birth weight**.[10]

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DATE OF PREPARATION: MARCH 2018 GCRHD/CHGRT/0011/18A