

Facts about fine dust

Fact sheet

memon bionic instruments GmbH



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Fine particulate matter consists of all airborne particles smaller than 10 micrometres. As such, fine particulate matter has a defined upper limit but practically no lower limit. Despite this fact having been neglected for years [1], this means that millions of fine and ultra-fine particles are part of fine particulate matter and cause respiratory and health problems [2, 3] that are increasing in prevalence.

While large particles are predominantly deposited in the upper airways and bronchial branches, fine and ultra-fine particles reach the finest respiratory bronchiole and the alveoli. Via the alveoli, these ultra-fine particles can also enter the bloodstream and migrate into tissues and organs, causing permanent damage [4].

These particles, which originate from combustion processes, such as soot particles, industrial fumes, traffic emissions and diesel soot, know no difference between outdoor air and indoor spaces [5], they are everywhere. Due to laser printers, mould spores, etc., fine dust is even more problematic indoors, where people spend more time working, living, sleeping [6], than outdoors. Fine particulate matter is carcinogenic [7], makes people ill [8] and causes immense health care costs [9].

References

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