

Air pollution makes acne worse: a 2017 review of new evidence

ACNE

HOTTOPIC

The critical role of inflammation in acne development is becoming increasingly evident. Yet there is growing evidence that outdoor pollution acts as an inflammatory mediator, exerting its harmful effects by generative oxidative stress. The stress may eventually overwhelm the skin's natural defenses, depleting its antioxidant capacity and contributing to a background inflammatory environment. UV exposure has an additive effect with airborne pollution and ground-level ozone (O₃), notably on antioxidant depletion and lipid (as squalene, the unsaturated fatty acid accounting for 10% to 15% of sebum) peroxidation levels.



In epidemiological terms, three studies conducted in Asia indicate that exposure to air pollutants may aggravate acne vulgaris and support the pathophysiological links between acne prevalence and high ambient pollution levels.

In light of the available data, a Eurasian board (seven scientists with expertise in dermatology, skin biology and environmental medicine) supports the need of dermocosmetic protection in acne patients: to prevent exacerbation of the inflammatory cycle, aggravated severity and post-inflammatory pigmentation.

Bibliography

Krutmann J., Moyal D., Liu W. et al. Pollution and acne: is there a link? Clin, Cosmet Investig Dermatol. 2017;10:199–204.

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