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Abstract

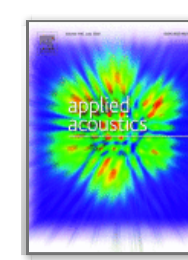
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Environmental noise and sleep. Review—Need for further research

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Abstract

The paper updates the knowledge on noise-induced sleep disturbances. If people do not habituate completely to their usual acoustic environment, health disorders can be expected in the long run.

For the determination of admissible limits, continuous and intermittent noise must be considered separately. The latter causes larger reactions and is (in this context) defined by a distance of more than 10 dBA between the equivalent sound pressure level and the maximum levels.

The admissible risk for intermittent noise is determined by a curve which relates the maximum levels to the number of the single noise events. The critical load for continuous noise is suggested as 40 dBA indoors.

Additionally, critical situations and critical groups are considered (e.g. shiftwork, time of night, illness, aged people).

Finally, various preventive measures and their (presumed) benefits are discussed (e.g. sleeping pills, double glazing, speed limits, traffic diversion).

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