



CPME/AD/Brd/290303/6/EN/fr

At its Board meeting, Brussels, March 29th, 2003, the CPME adopted the following policy : **Noise pollution and environmental action plan** (CPME 2002/089 Final EN/fr)

I - MEDICAL PROFESSIONS and DATA COLLECTED:

Noise in the workplace:

Industrial deafness and compensation;
Effect of noise on productivity, performance
Effect of noise on vigilance and in accidentology (infrasonics, vibrations).

Noise and sleep:

Quality of sleep:
Characteristics of phases, organisation, bio-physical parameters: BP, HR, cardiovascular, neuroendocrine, temperature.
Effects of noise:
on the structure of sleep,
on different individuals and reactivity to background noises, to isolated sounds.
Sleep adaptations:
Physiological habituation and effect on performance

Noise and children:

Effects of prenatal stress reactions during the last trimester of pregnancy
Effects of noise on intellectual, physiological and psychological development.
Games and shouting, nevertheless vital to the development of children.

II – KNOWN PATHOGENIC EFFETS:

Effects of noise on hearing:

When sounds become noise: loudness, frequency, duration
Characteristics of noise: frequency, loudness, sources, duration, repetition, reflected noise
Quantifying effects of noise: on the middle and inner ear



Effects of noise other than on hearing:

Stress: change in homeostasis
Alarm reaction, resistance stage then exhaustion stage
Biological translation of this pathogenic stimulus, which is one of body's responses, leading to loss of hearing, increased BP, increased HR, aggression, fatigue, depression, immunodeficiency, etc.....

Definition of discomfort caused by noise:

Takes account of subjective characteristics, psychosocial context, adaptation of each individual, the environmental context.

The effects of noise lead to the emergence of problems whose initial causal effect of isolated noise is not always recognised.

Feeling of powerlessness in relation to the noise – like rent payable to benefit from the advantages of urban life.

At work ear protection is used against the discomfort of noise while, paradoxically, personal stereos are used to heighten the effect of recreational music.

Comments:

Night-time – the period of 22:00 to 07:00 – is used to define the indices in force, noise effect studies carried out “close to the head of the sleeper”.

Legislation is based on “noise in front”. In periods when the night-time temperature is 25°C, there are the problems of open or shut windows, dryness of the air, door and window frames, architecture (differences between the north and south of Europe).

Still to be defined: night-time thresholds different from daytime thresholds, taking account of location, time of registering noise, temperature and humidity.

III – C.P.M.E. PROPOSAL:

European Directive of 1985: requires that employers are informed and workers protected if the daily exposure to sound is greater than or equal to 85 dB or where there are sound pressures greater than or equal to 135 dB.

However, the problems remain of non-professional activities, the environment, architecture, town planning and social class.



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European doctors:

must inform, raise awareness, administer care according to medical ethics and must also jointly and severally uphold environmental ethics.

Henceforth, they are the major expert partners in epidemiology and implementation as adapted by the directives, improving incorporation in socio-psychological areas.

In the future, they will have to work as a team and be involved in decision-making mechanisms with other health professionals such as psychologists, sociologists, town planners, teachers and hygienists.

They will have to collaborate with the decision-makers to build a European epidemiological database in cooperation with national health monitoring bodies.

However, the work undertaken on prevention in Public Health and on sociological issues must result in new remuneration being provided for this work in recognition of the involvement of these professionals in Public Health and in the quality of the environment. Such recognition would allow them to apply the precautionary principle wisely, before any harmful commercial or manufacturing activity takes place, as well as making possible wider ranging actions to respect World Trade Organisation and environmental standards.