

Third Paris Appeal International Congress

Children's health and the environment

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EFHRAN 2010 - European Health Risk Assessment Network on Electromagnetic Fields Exposure

Official opinion on ELF-EMF:

Epidemiological studies have shown a two-fold risk of childhood leukaemia with some degree of consistency after exposure to power frequency magnetic fields at above approximately 0.3/0.4 μT .

- a) The observed association alone is not sufficient to conclude a causal relationship, since there is no known mechanistic explanation for the observed association.
- b) Overall, experimental studies do not provide evidence that low frequency magnetic fields are carcinogenic.
- c) A combination of chance, bias and confounding may well have produced a spurious association in the epidemiological studies.

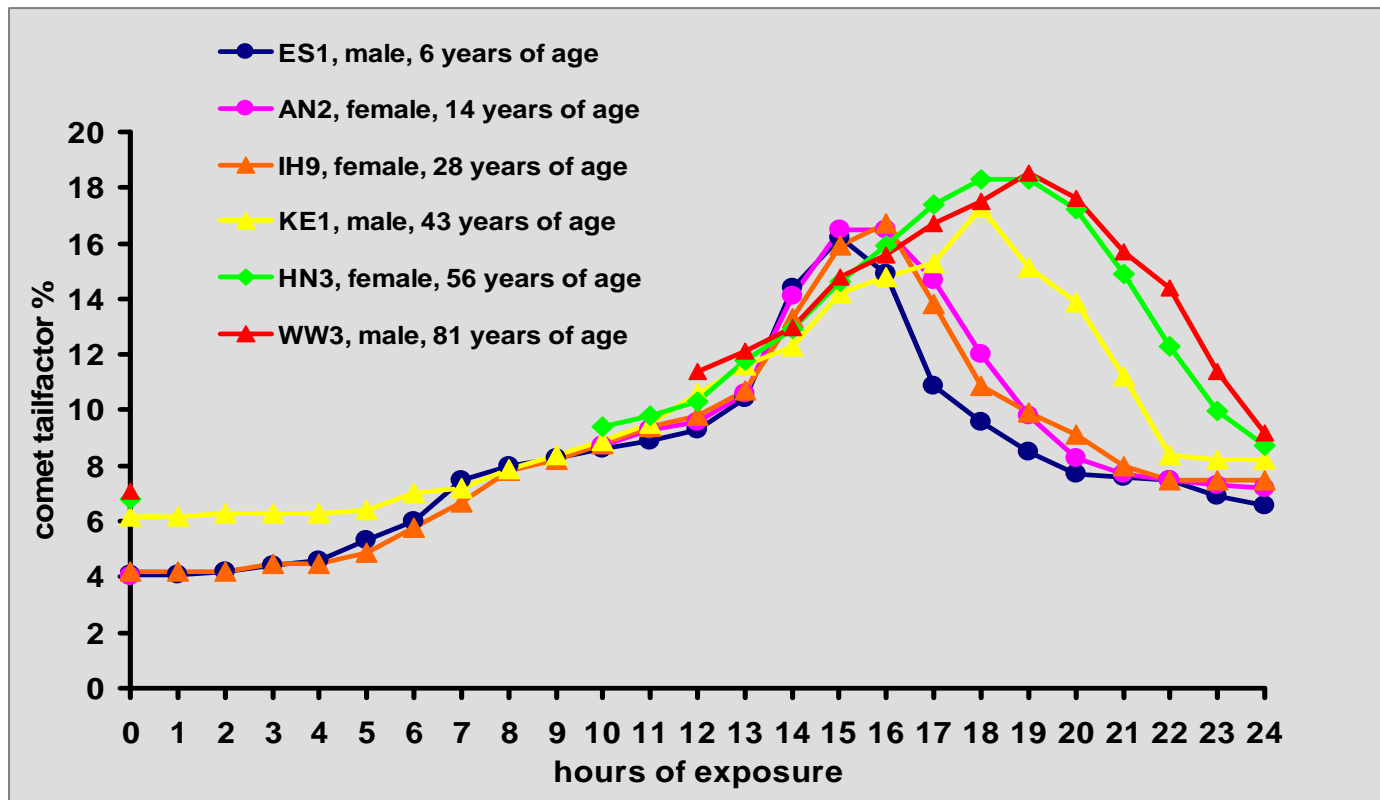
Therefore:

Leukaemia in children: limited evidence

Brain tumours in children: inadequate evidence

ELF-EMF _ Age-dependent increase of DNA strand breaks in human fibroblasts

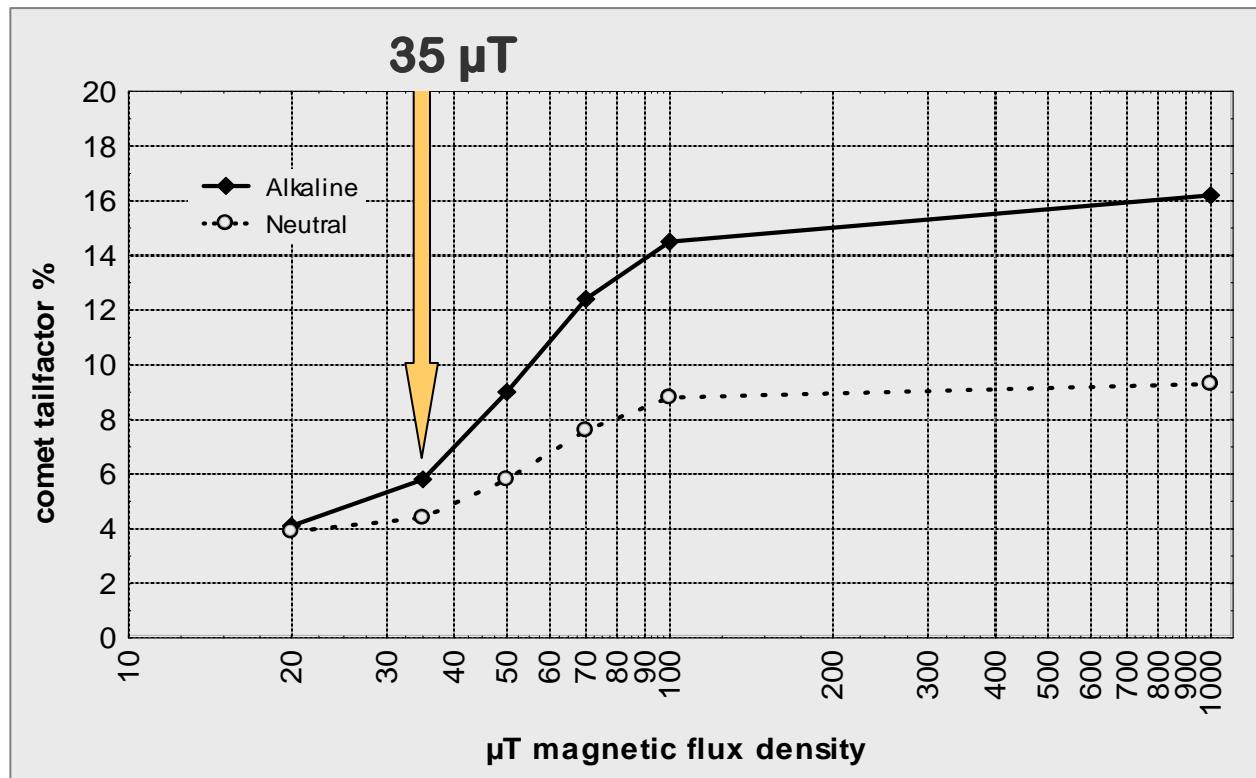
50 Hz sinus; 1000 μ T; 5 min on / 10 min off



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ELF-EMF _ Flux density-dependent increase of DNA strand breaks in human fibroblasts

50 Hz sinus; 15 h; 5 min on / 10 min off



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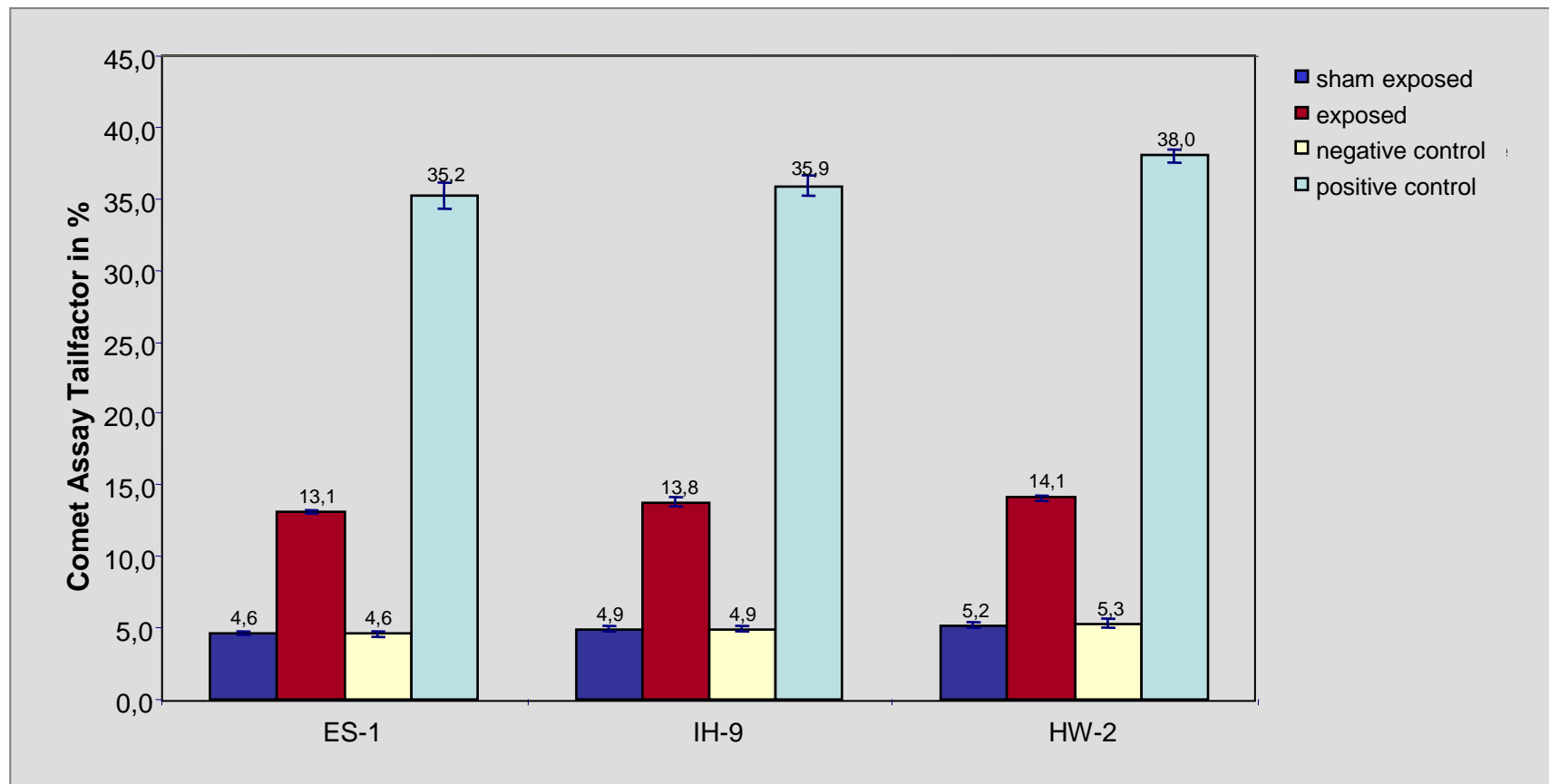
EFHRAN 2010 - European Health Risk Assessment Network on Electromagnetic Fields Exposure

Official opinion on RF-EMF:

Results from the international analyses of glioma and meningioma in the INTERPHONE study have not demonstrated an increased risk of these diseases in relation to mobile telephone use. There were, however, suggestions of an increased risk of glioma, and much less so of meningioma, observed among the heaviest users, but biases and errors prevent a causal interpretation.

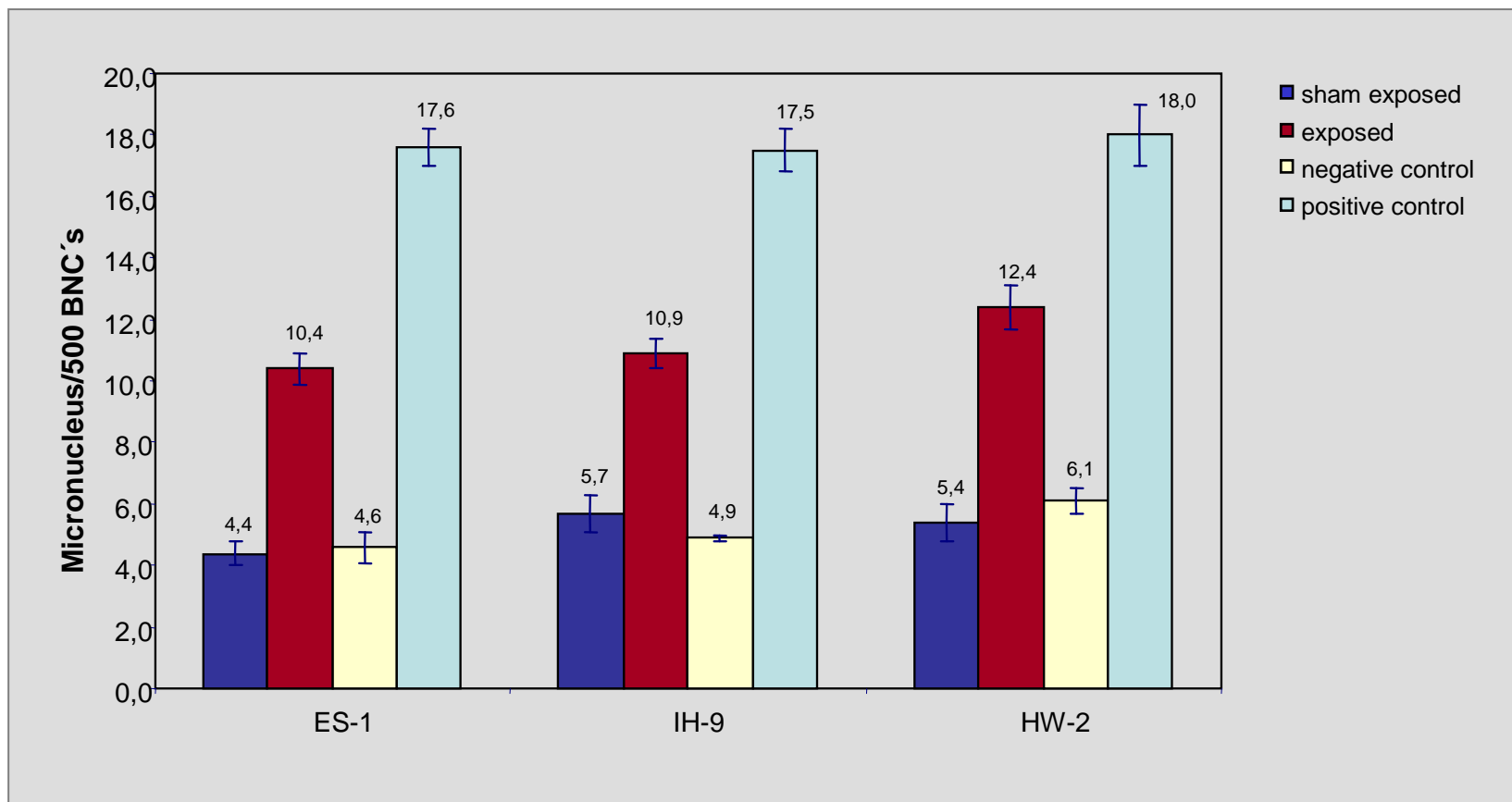
Leukaemia in children:	inadequate
Brain tumours in children:	inadequate
Other cancer (children or adults)	inadequate

Increase of DNA strand breaks in fibroblasts from three different persons after UMTS exposure (0.1 W/kg, 16 hours)



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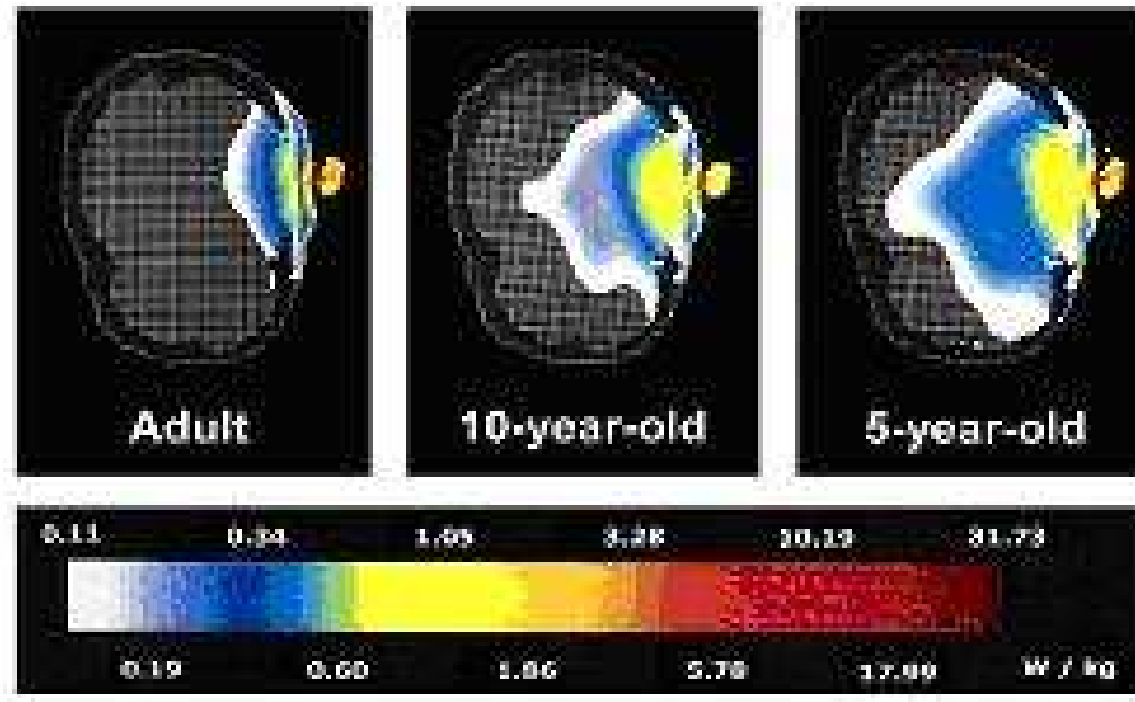
Increase of micronuclei in fibroblasts from three different persons after UMTS exposure (0.1 W/kg, 16 hours)



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Energy deposition for models of an adult and 10-year and 5-year old children for a cellular telephone at 835 MHz.

Radiated power = 600 mW



From: Dr. Om P. Gandhi et al. (1996) Electromagnetic absorption in the human head and neck for mobile telephones at 835 and 1900 MHz. IEEE Transactions on Microwave Theory and Techniques, Vol. 44, No. 10:1884-97.