

“Clear Evidence that Radiofrequency Radiation is a Multi-site Carcinogen”

Hardell and Carlberg Publish Commentary on the National Toxicology Program Final Reports on Radiofrequency Cell Phone Radiation Study

<https://ehtrust.org/clear-evidence-that-radiofrequency-radiation-is-a-multi%E2%80%91site-carcinogen-hardell-and-carlberg-publish-ntp-commentary/?fbclid=IwAR01pfk19DtKV-FiK-6jYN9hF6gXYV3xEvB8XqwUz-cqq0xFrUWNOjvB1F8>

Hardell and Carlberg have published their [expert commentary](#) on the US National Toxicology Program study on rats and mice. They conclude in their [paper](#) “that there is clear evidence that RF radiation is a human carcinogen, causing glioma and vestibular schwannoma (acoustic neuroma).” The paper additionally considers other cancer endpoints. For example, in regards to the rising increase in incidence of thyroid cancer, the authors state that “there is some evidence that thyroid cancer is caused by RF radiation in humans. The authors conclude that there is “clear evidence that RF radiation is a multi-site carcinogen. Based on the Preamble to the IARC Monographs, RF radiation should be classified as carcinogenic to humans, Group 1.”

“Our conclusion on RF radiation carcinogenicity is the following based on human epidemiology and supported by animal results in the NTP reports: Glioma, clear evidence; meningioma, equivocal evidence; vestibular schwannoma (acoustic neuroma), clear evidence; pituitary tumor (adenoma), equivocal evidence; thyroid cancer, some evidence; malignant lymphoma, equivocal evidence; skin (cutaneous tissue), equivocal evidence; multi-site carcinogen, clear evidence.”

“In this paper, Hardell and Carlberg reach the same conclusion as [Miller et al 2018](#) that there is now sufficient evidence for the International Agency for Research on Cancer to categorize radiofrequency radiation as a Group 1 human carcinogen. Sweden was one of the first countries to introduce mobile phones, and the case-control studies performed by Hardell and his colleagues have produced much of the human evidence necessary to reach such a conclusion,” stated Anthony Miller MD pointing to several published research studies and reviews by Hardell and Carlberg, which [includes](#) a higher risk for glioma if first use of mobile or cordless phone was before the age of 20.

In 2013, Hardell and Carlberg published the conclusion that RF radiation should be regarded as a human carcinogen, Group 1 according to the IARC definition as the scientific evidence fulfilled Bradford Hill causality criteria. Subsequent publications have added more documentation supporting their conclusions.

Cancer is one of the many health effects associated with exposure to radiofrequency radiation in published research studies. “With respect to health implications of digital (wireless) technologies, it is of importance that neurological diseases, physiological addiction, cognition, sleep, and behavioral problems are considered in addition to cancer. Well-being needs to be carefully evaluated as an effect of changed behavior in children and adolescents through their interactions with modern digital technologies, stated Hardell in [“Effects of Mobile Phones on Children’s and Adolescents’ Health: A Commentary.”](#)

Hardell L, Carlberg M., [Comments on the US National Toxicology Program technical reports on toxicology and carcinogenesis study in rats exposed to whole-body radiofrequency radiation at 900 MHz and in mice exposed to whole-body radiofrequency radiation at 1,900 MHz.](#) Int J Oncol. 2018 Oct 24.

Abstract: During the use of handheld mobile and cordless phones, the brain is the main target of radiofrequency (RF) radiation. An increased risk of developing glioma and acoustic neuroma has been found in human epidemiological studies. Primarily based on these findings, the International Agency for Research on Cancer (IARC) at the World Health Organization (WHO) classified in May, 2011 RF radiation at the frequency range of 30 kHz-300 GHz as a ‘possible’ human carcinogen, Group 2B. A carcinogenic potential for RF radiation in animal studies was already published in 1982. This has been confirmed over the years, more recently in the Ramazzini Institute rat study. An increased incidence of glioma in the brain and malignant schwannoma in the heart was found in the US National Toxicology Program (NTP) study on rats and mice. The NTP final report is to be published; however, the extended reports are published on the internet for evaluation and are reviewed herein in more detail in relation to human epidemiological studies. Thus, the main aim of this study was to compare earlier human epidemiological studies with NTP findings, including a short

review of animal studies. We conclude that there is clear evidence that RF radiation is a human carcinogen, causing glioma and vestibular schwannoma (acoustic neuroma). There is some evidence of an increased risk of developing thyroid cancer, and clear evidence that RF radiation is a multi-site carcinogen. Based on the Preamble to the IARC Monographs, RF radiation should be classified as carcinogenic to humans, Group 1.

A Sampling of Published Scientific Evidence Associating Cell Phone Radiofrequency to Cancer and Other Health Effects

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