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Do Wi-Fi and mobile phones really cause cancer? Experts respond

Simon Chapman
University of Sydney

Darren Saunders
University of New South Wales, d.saunders@garvan.org.au

Rodney J. Croft
University of Wollongong, rcroft@uow.edu.au

Sarah P. Loughran
University of Wollongong, loughran@uow.edu.au

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Abstract
On 16th February, Catalyst aired an episode on the ABC titled "Wi-Fried", hosted by Dr Maryanne Demasi, claiming that radiation from mobile phones and Wi-Fi may constitute a brain cancer risk. We invited experts who have conducted research into this area to respond to the claims made in the programme.

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There is no firm evidence that mobile phone radiation causes us harm. Shutterstock

Simon Chapman
Simon Chapman is a Friend of The Conversation.
Emeritus Professor in Public Health, University of Sydney

Darren Saunders
Senior Lecturer in Medicine, UNSW Australia

Rodney Croft
Professor of Health Physiology, University of Wollongong

Sarah Loughran
Research Fellow, University of Wollongong

On 16th February, Catalyst aired an episode on the ABC titled “Wi-Fried”, hosted by Dr Maryanne Demasi, claiming that radiation from mobile phones and Wi-Fi may constitute a brain cancer risk.

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Rodney Croft, University of Wollongong

Instead of science journalism, Catalyst aired a misleading program, which followed the views of a few individuals in arguing that radiofrequency emissions from wireless devices were harmful.

Although the program failed to disclose this, such views are not supported by science and should be taken merely as the personal views of some fringe scientists.

In fact, the scientific consensus is strong, and is that there is no substantiated evidence that the low levels of radiofrequency emissions encountered by mobile telecommunications can cause any harm.

For more details about the international scientific consensus on this issue you may find the website of the International Commission on Non-Ionising Radiation Protection (ICNIRP) of interest, or closer to home, that of the Australian Centre for Electromagnetic Bioeffects...
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https://theconversation.com/do-wi-fi-and-mobile-phones-really-cause-...
messages related to the use of such devices, which may serve to perpetuate fear related to a health risk that currently does not exist.

Dr Sarah Loughran is a researcher at the National Health & Medical Research Council of Australia’s Centre for Research Excellence in Electromagnetic Energy. She is currently a member of the World Health Organisation (WHO) Environmental Health Criterion Evaluation Committee on Radiofrequency Fields, the scientific expert group of ICNIRP, and is on the board of directors for the Bioelectromagnetics Society.

Simon Chapman, University of Sydney

Dr Devra Davis, who was featured extensively in the Catalyst programme, asserted that it was too early to see any rise in brain cancer caused by mobile phones or Wi-Fi, and argued that brain cancers after the Japanese atomic bombs did not appear for 40 years. This is simply incorrect.

There is no evidence of any increase in the rate per 100,000 population of brain cancer in any age group in Australia from 1982 to the present, other than for the very oldest age group where the increase started well before mobile phones were introduced in Australia and so cannot be explained by mobile phones. All cancer in Australia is notifiable, and over 85% of brain cancer is histologically verified: it is not just a doctor’s opinion.

This paper also reports on central nervous system cancers (including brain cancers) in those exposed to atomic bomb radiation in Japan. This table from the paper shows those diagnosed before 1985 (i.e. before 40 years). You can see that there were 110/187 cases diagnosed in the first 40 years, i.e. 58.8%.

This table shows the incidence of a variety of cancers of those exposed to atomic bomb radiation over the years.

Cancer/DOI 10.1002/cncr.20543

And this quote from the methods shows that there were another 27 who died before 1958 from central nervous system cancers, i.e. within 13 years of the bombs.

We excluded 73 tumors in individuals who were not in Hiroshima or Nagasaki at the time of the bombings, 35 individuals who did not have available organ dose estimates, and 27 individuals who died or were diagnosed before January 1, 1958.

We have had mobiles in Australia since 1988. Some 90% of the population use them today and many of these have used them for a lot longer than 13 years, but we are seeing no rise in the incidence against the background rate.

Davis is arguing that we would see a sudden rise 40 years later. That is not what we see with cancer; we see gradual rises moving toward peak incidence, which can be as late as 30-40 years (as with lung cancer and smoking for example).
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New cases of brain cancer in Australia, 1982 to 2011
(age-adjusted) Australian Institute of Health and Welfare, CC BY

Simon Chapman is Emeritus Professor in Public Health at the University of Sydney

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