



Office of the Prime Minister's Chief Science Advisor  
Kaitohutohu Mātanga Pūtaiao Matua ki te Pirimia

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INFORMATION SHEET: Hot topic – 5G and health

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<b>Notes:</b> ‘Hot topic’ documents provide an overview of the topic, with links to reputable sources for further information. They are periodically updated. The most recent update is archived here.				



## 5G and health

Last edited: 23 February 2022

The latest cellular network is being rolled out in Aotearoa New Zealand. Known as 5G, it is faster, more responsive, and offers greater connectivity than earlier networks. Ahead of the rollout, there were a lot of questions about 5G so the Prime Minister asked us to put together some accessible information, which you can [read here](#).<sup>1</sup> One of our key conclusions was that, while there have been some concerns raised around the use of 5G, it is extremely unlikely that there will be any adverse effects on human or environmental health from cell sites that comply with New Zealand standards.

Our cell sites are independently monitored to ensure they meet New Zealand standards, and the Ministry of Health has an expert advisory committee that reviews new research so that conclusions around 5G and health continue to be informed by the latest evidence.

### Information from the Ministry of Health

The Ministry of Health has published some [helpful information on its website](#).<sup>2</sup> The Ministry’s website also has information about [existing cell sites](#)<sup>3</sup> and results from [independent monitoring of sites around the country](#).<sup>4</sup> You can also find resources and information on the [Ministry for Business, Innovation and Employment’s website](#).<sup>5</sup>

### What about aircraft interference?

Concerns that 5G networks might interfere with aircraft equipment have recently been raised in the United States. [This debate](#) is happening in the US because the radio frequency they are using for their 5G network is close to the radiofrequency used for some aircraft equipment like radio altimeters.<sup>6</sup> However, the frequency being used for the 5G network in New Zealand is different from the US, avoiding the risk of overlap, meaning interference with aircraft equipment by 5G transmitters is of negligible concern here. See the [Radio Spectrum Management webpage on 5G](#)<sup>7</sup> for details on spectrum allocations in New Zealand.

### Read more

- [UK Parliamentary Office of Science and Technology 5G briefing](#)<sup>8</sup>
- [UK House of Commons Library briefing paper](#)<sup>9</sup>
- [World Health Organisation Q&A on 5G and health](#)<sup>10</sup>

## Endnotes

- <sup>1</sup> OPMCSA webpage – 5G in Aotearoa New Zealand, accessed on 23 February 2022  
<https://www.pmcsa.ac.nz/topics/5g-in-aotearoa-new-zealand/>
- <sup>2</sup> Ministry of Health webpage – 5G questions and answers, accessed on 23 February 2022  
<https://www.health.govt.nz/your-health/healthy-living/environmental-health/radiation-environment/cellsites-and-5g/5g-questions-and-answers>
- <sup>3</sup> Ministry of Health webpage – Cellsites and 5G, accessed on 23 February 2022  
<https://www.health.govt.nz/your-health/healthy-living/environmental-health/radiation-environment/cellsites-and-5g>
- <sup>4</sup> Ministry of Health webpage – Independent cellsite monitoring, accessed on 23 February 2022  
<https://www.health.govt.nz/our-work/environmental-health/non-ionising-radiation/independent-cellsite-monitoring>
- <sup>5</sup> Ministry of Business, Innovation and Employment webpage – Radio spectrum, accessed on 23 February 2022  
<https://www.mbie.govt.nz/science-and-technology/it-communications-and-broadband/radio-spectrum/>
- <sup>6</sup> *New Scientist* article – Will 5G mobile networks in the US really interfere with aircraft? (2022), accessed on 23 February 2022  
<https://www.newscientist.com/article/2304975-will-5g-mobile-networks-in-the-us-really-interfere-with-aircraft/>
- <sup>7</sup> Radio Spectrum Management webpage – Preparing for 5G in New Zealand, accessed on 23 February 2022  
<https://www.rsm.govt.nz/projects-and-auctions/current-projects/preparing-for-5g-in-new-zealand/>
- <sup>8</sup> UK Parliamentary Office of Science and Technology briefing – 5G technology (2019), accessed on 23 February 2022  
<https://researchbriefings.files.parliament.uk/documents/POST-PB-0032/POST-PB-0032.pdf>
- <sup>9</sup> UK House of Commons Library briefing paper – 5G (2019), accessed on 23 February 2022  
<https://researchbriefings.files.parliament.uk/documents/CBP-7883/CBP-7883.pdf>
- <sup>10</sup> World Health Organisation webpage – Radiation: 5G mobile networks and health, accessed on 23 February 2022  
<https://www.who.int/news-room/questions-and-answers/item/radiation-5g-mobile-networks-and-health>