

## Get Wired! – you may feel better.

Recently my wife began to experience sensitivity to **Electro-Magnetic radiation (EMR)**. The effects principally manifested themselves as feelings of tiredness, tightness of the scalp and neck, tingling in her legs when working at her desk and sleeping problems at night. She became suspicious that something in our environment was affecting her health, so we decided to do some investigating.

We found multiple websites that warned us of the negative health effects of EMR, some of which matched her symptoms. For example:

<http://ideaireland.org/library/idea-position-on-electro-magnetic-radiation/>

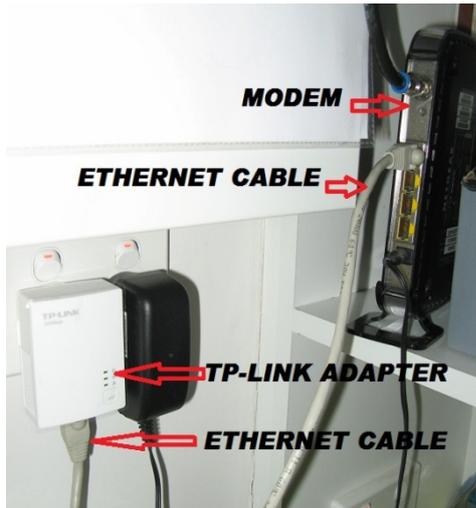
*“The Irish Doctors’ Environmental Association believes that a sub-group of the population are particularly sensitive to exposure to different types of electro-magnetic radiation. The safe levels currently advised for exposure to this non-ionising radiation are based solely on its thermal effects. However, it is clear that this radiation also has non-thermal effects, which need to be taken into consideration when setting these safe levels. The electro-sensitivity experienced by some people results in a variety of distressing symptoms which must also be taken into account when setting safe levels for exposure to non-ionising radiation and when planning the siting of masts and transmitters.”*

Our next step was to hire an EMR detection meter and use it to measure the amount of radiation in every room of our apartment. It was no great surprise to find high levels in the pantry, where our internet WiFi router/modem is installed. But worse by far was the cordless telephone that was sitting on my wife’s desk less than a metre from her chair. It virtually sent the meter reading off the scale, even when it was not actually in use! This appeared to explain why she felt little or no discomfort when she worked with her laptop in the livingroom, but the tingling and other symptoms would reoccur when working at the desk. We decided then and there to dump our Wifi and cordless phone equipment and switch back to hard-wired telephones and internet connection.

**Installation** was surprisingly easy and reasonably inexpensive. Our apartment has enough phone outlets to plug telephones into various convenient places and, although wired phones are somewhat out of fashion, at a Telstra shop we found a decent one with good features for the study and also a conveniently small handset for the bedroom– total cost \$75.00

**The internet connection** was a little more challenging, but it’s not rocket science! Our standard Telstra Netgear modem is capable of operating with hard-wired connections to the computers and other components such as our printer and video recorder, so we incurred no additional cost there.

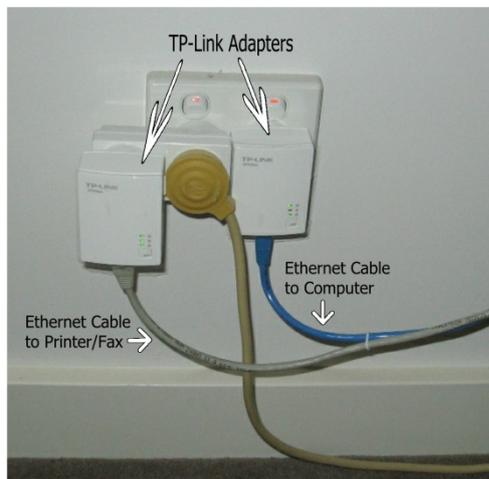
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The next question was how to make the connection from the modem to our computers and other devices without having to hire an electrician and enduring the major disruption of a complicated installation.

Easy! For \$150, we bought six TP-Link® Powerline Adapters (Model No. TL-PA211) which simply plug into any electrical power point. They use the home's wiring to transmit the signals from the modem's adapter to an adapter plugged in to a power point near each of the connected devices. An Ethernet cable then passes the data from the adapter to the target device. This article is not an advertisement for TP-Link; I'm sure

that similar adapters from other manufacturers would work just as well.



It may sound a little worrying, using live electrical wiring to connect your devices, but this is very well established technology that has been working safely all over the world for a number of years.

Once the wired connections were established, turning the WiFi off was a simple task. Remember to also turn off the WiFi on your computer (usually via a Function Key) and printer (in its settings) as well.

An added bonus benefit is security – your WiFi is visible to anyone with a computer, tablet or smart-phone within range of your wireless router. If you are

wise, your WiFi will be password protected, but we've all heard stories of hackers and hijackers who have ways of getting around simple security. A hard-wired connection is not vulnerable to being broken into by a passing bandwidth bandit or an unscrupulous neighbour.

So far, our two computers and the Video Recorder have been connected and are working perfectly. The response times on both of the computers and the video recorder (when it is accessing ABC Iview and SBS On Demand) is faster and more consistent than the WiFi was.

The multi-function printer is similarly connected via its own adapter and, after a little fiddling with the network connection settings, now produces printed output as normal and also accommodates the scanning and fax functions for both of our computers.

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If you have other devices which rely on using WiFi such as an iPad®, the final task will be to provide them with Ethernet connections. A little research on the internet will generally find a solution. For example, Apple will tell you that it can't be done, but I found several videos on YouTube showing that connecting an iPad is possible and not too complicated. Again the outlay for the bits and pieces needed is modest. I would estimate that it could be bought for under \$100. Here are a couple of YouTube examples of how to set up a connection for an iPad:

[https://www.youtube.com/watch?v=2ndUO\\_p\\_9oI](https://www.youtube.com/watch?v=2ndUO_p_9oI)

<https://www.youtube.com/watch?v=Sue1Zvmh8JA>

An alternative solution is to temporarily switch your modem's WiFi on while you use the iPad or you could take it to a public library or other free WiFi hot-spot and use theirs.

Another unpleasant surprise was the EMR reading in the vicinity of the microwave oven when it was operating. We recorded extremely high levels, even when the measurement was taken four or five metres away. Fortunately, we are not frequent microwave users and will do some more investigating before deciding what to do about it.

So my message is: Whether you believe that EMR is bad for you or not, why take the risk when it can be avoided without a lot of effort or expense? Check out some websites and, if you are really curious, hire a meter and find out how strong the radiation is in your home.

Here are a few informative websites:

- [https://en.wikipedia.org/wiki/Electromagnetic\\_radiation](https://en.wikipedia.org/wiki/Electromagnetic_radiation)     *(see Biological Effects)*
- <http://www.globalhealingcenter.com/natural-health/neuroscientist-confirms-the-danger-of-electromagnetic-radiation/>     *(more health information)*
- [www.emraustralia.com.au](http://www.emraustralia.com.au)     *(for advice and meter hire)*

**About the author:** Ken Chapman (email address: [bilangmi@gmail.com](mailto:bilangmi@gmail.com)) is a retired IT software consultant, who has only minimal knowledge of setting up networks. All of the above setup was achieved by 'trial and error' (fortunately not too many errors), reading the manufacturers' instructions supplied with the equipment and getting advice from articles published on the web.