

Creating An EMR-Safe Practice



The EEG and ECG is one thing but **Lyn McLean** suggests we should be concerned about adverse health effects from electromagnetic radiation in our practices.

Electromagnetic radiation (EMR) is the invisible companion that emanates from all electrical and wireless technology. In your practice, EMR is emitted by any mobile or cordless phones, photocopiers, lights, computers and electrical and medical equipment. It's a concern for doctors because adverse health effects have been associated with low level EMR.

Extremely low levels of EMR (as low as 1/500th of international standards) have been repeatedly linked with childhood leukemia¹ and classified as possible carcinogens by the International Agency for Research on Cancer. EMR has been shown to cause adverse genetic² and hormonal effects³ and to disrupt cellular communications.⁴ It's strongly linked with Alzheimer's disease⁵ and possible other neurodegenerative conditions. Many studies have found associations with depression; sleep problems; fatigue; headaches; memory, concentration and skin problems and a range of other symptoms.^{6,7}

Fortunately, you don't have to dispense with the convenience of modern technology in order to reduce the exposure of your staff and patients – some simple steps can create an EMR-safe practice.

Phones

Most DECT cordless phones transmit microwave radiation while plugged in at the power point, irrespective of whether a call is being made. The radiated signal can remain high some rooms away from the phone's tower.

Cordless phones are similar to mobile phones in that the microwaves are absorbed by the user's head and long-term use is similarly linked with brain tumours.⁸

Wired phones avoid these problems and are a much safer choice.

Computers and connections

Wireless computers operate with microwave signals, exposing the user and those in the vicinity while the modem is plugged in at the power point and turned on. Better alternatives are to use wired connections or to position the screen and hard drive as far away from the user's body as possible.

Lighting choice

Lighting with the lowest electromagnetic fields is the incandescent globe, which unfortunately is being phased out. Good alternatives are LED lights or low energy halogens.

Avoid the halogen globes that have transformers and therefore high electromagnetic fields. High fields can also be emitted by fluorescent globes and compact fluorescent globes (that some people find particularly hard to tolerate).

Other equipment

Locate electrical equipment that is potentially the source of high fields – such as photocopiers – away from workstations. You can also eliminate fields from external sources – such as switchboards or substations – with appropriate shielding materials.

If you work in an operating theatre, it may be wise to measure the fields from the lights and

equipment, and shield sources that are high.

Some hospitals in Sweden have already implemented measures to reduce patient exposure, including shielding electrical equipment, shielding consultation rooms and providing a shielded bed canopy for patients with EMR-related problems.

References

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4. R. A. Luben, 'Effects of Microwave Radiation on Signal Transduction Processes of Cells In Vitro', presentation at the *Non-Thermal Effects of RF Electromagnetic Fields conference*, held in Munich, 20–21 November 1996.
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7. R. Santini et al., 'Investigation on the Health of People Living Near Mobile Telephone Relay Stations: incidence according to distance and sex', *Pathology Biology (Paris)* 50 (6), 2002, pp. 369–73.
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BENEATH the Drapes

- Recruitment agency **ChoiceOne** has received a \$0.9m nursing staff contract for the Perth Watch House.
- The Bethesda Board Chairman Dr Neale Fong has announced the appointment of **Dominic Bourke** to the Bethesda Hospital Board. Mr Bourke has had a distinguished career in commercial litigation, specialising in medical defence work and insurance law.
- Health Department Director General, Kim Snowball, has announced the appointment of **Ian Smith** as Chief Executive Officer, WA Country Health Service (WACHS). Mr Smith, who was formerly the Regional Director for the Great Southern.
- Medical Advisor **Dr Daniel Heredia** has left Medicare Australia to take up the position of Deputy Director of Medical Services at Hollywood Private Hospital.
- **Mr Barry MacKinnon** has been appointed the inaugural Chair of WA's newly established Mental Health Advisory Council. **Dr Judy Edwards** was also announced as the council's Deputy Chair.

WIN a copy of *The Force* by Lyn McLean

Medical Forum is offering our readers the chance to win one of five copies of *The Force: Living Safely in a World of Electromagnetic Pollution*. This referenced 380-page paperback by an Australian author provides the social, economic and political background to the measured health concerns around EMR in our rapidly changing world, where communication towers have taken over from high tension power lines.

To enter the draw, simply email your name, address and contact number to editor@mforum.com.au by March 31 with the text "EMR" in the subject.

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