

*This is the **fourth** in a series of **Articles on EMFs** written by Oram Miller, BBEI. The series is inspired by fellow building biologists [Ron & Lisa Beres](#), based in Irvine, California. Ron and Lisa have invited Oram to write articles on EMFs for their blog, [Healthy Home Dream Team](#). This article appeared on their blog on December 11, 2010. The original blog entry can be viewed by clicking [here](#).*

This fourth article discusses steps to help you reduce and eliminate the most common type of EMF, electric fields, that robs us of a good night's sleep.

In the last article, we talked about the unknown EMF in the home, electric fields. Gauss meters only measure magnetic fields, which are actually more harmful but less common than electric fields. If you don't measure magnetic fields, don't assume you're free of EMFs in the bedroom. You likely do have electric fields, even if your Tri-Field Meter doesn't show them on the "Electric Field" setting.

Building biologists use the "Body Voltage Test" to measure electric fields where you sleep. The client lays on their bed and holds a metal cylinder and volt meter grounded to earth in one hand and a walkie-talkie in the other. They tell us what the electric field readings are when we shut off all circuits at the breaker panel. We then turn them on again one at a time looking for those circuits that raise the electric field levels in each bedroom to determine which ones need to be shut off when the client and their family sleeps at night.

If you're lucky enough to live in a home or apartment with metal-clad wiring in the walls, either flexible metal sheathing ("flex," "MC cable," "armored cable," or the old "BX") or rigid metal pipe ("EMT"), you don't need to shut off any circuits at night. You only need to unplug all lamps and any other electronic appliances where cords are within eight to ten feet of your bed in all directions (up, down, sideways and through the wall in adjoining rooms). You can purchase a plug-in switch from the hardware store, which you first plug into an outlet, then plug your lamp into the switch. Turn off the lamp at the outlet, not at the lamp, and the plastic cord goes dead when the lamp goes off.

You can also purchase shielded plastic AC power cords from [LessEMF.com](#) and have a small appliance repair shop replace your bedside lamp cord so you don't need a plug-in switch. That way, there are no electric fields from the cord and the metal in the lamp even with the lamp turned on. I can provide a protocol for the shop to follow. Grounded cords are only partially helpful because they still emit an electric field. A shielded cord has a special aluminum sheath under the plastic insulation that completely keep electric fields from being emitted into the room from the "hot" wire inside. They cannot be purchased at a hardware store and are only available from LessEMF or other online sources.

These solutions only work if you have metal circuits in your walls. Most homes in America, however, are wired with plastic circuits, called Romex or NM (for “non-metallic”) wiring. In that case, you need to shut circuits off at night at the breaker panel that pass in and through all rooms where people sleep. Be sure to keep circuits on that power smoke detectors and other appliances that need to run overnight (refrigerators, furnace, hot water heater fan, etc.). Sometimes new dedicated metal-clad circuits need to be run for these appliances. You can use battery operated clocks and flashlights by the bed.

To avoid traipsing out to the garage or basement every night and morning to turn circuits off and on, an electrician can install one or more Demand Switches next to the breaker panel that automatically shut off circuits when you turn your lamp off. Talk to a building biologist about this option.

Remember, it is plastic circuits and lamp cords that pass through an eight to ten foot bubble around your sleeping body that elevate electric field levels, not the lamp itself, and it doesn't matter whether the lamp is on or not.

If this sounds complicated, it can be, and we honestly recommend that you contact a building biologist in your area to conduct this test and map out a strategy rather than trying it yourself. Go to www.buildingbiology.net and click on “Find an Expert” to locate one in your state. Oram can also walk you through this process long distance by telephone. If you live in Southern California, contact Oram to schedule an evaluation at 310.720.7686.

Reducing electric field levels can give you the deep sleep you deserve. You will sleep like you're camping while in the comfort of your own bed. This is one of the most important steps you can take to more fully improve your health.

Oram Miller, BBEI, is a Certified Building Biology Environmental Inspector. He provides EMF (electromagnetic field) evaluations for homes and offices locally in Southern California and nationwide over the telephone. You can contact Oram at 310.720.7686 or www.createhealthyhomes.com.

To view the **next article in the series**, entitled, “Smart Meters: Should We Be Concerned?”, click [here](#).

To view an extensive **list of links** to web sites documenting the health effects of exposure to EMFs caused by wireless devices, including cell phones, cordless telephones and wireless Internet (Wi-Fi) routers, click [here](#).

To view an extensive **list of links** to web sites documenting the health effects of exposure to EMFs in general, click [here](#).

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