Eco-Experts

Answers to your questions


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EMFs: Fact or Fiction

The article "Eliminating EMFs" (November /December 2003) refers to EMF effects from metal bedsprings. Has significant research been done that proves the negative impact on human health of EMFs or is this concern just hypothetical?
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Mary Cordaro replies:

Hundreds of studies have been conducted to determine if radiation from electromagnetic fields (EMFs) affects human health. The majority of these focus on EMFs from alternating current (AC) such as from household electrical wiring and appliances. Additional studies focus on high-frequency "signals" from cell phones. While scientists have not yet conducted large-scale studies regarding EMFs from metal in bedsprings and frames, preliminary research suggests three problems: Metal can concentrate and radiate a variety of EMFs from other sources; metal can become permanently magnetized; and metal disrupts our orientation to magnetic north.

First, metal bedsprings and frames can act as antennas for man-made frequencies, providing subtle, long-term exposure to a variety of low levels of EMFs. For example, in rooms with extremely high EMFs from power lines, household wiring, or appliances, metal will concentrate—and then radiate out—AC fields. Metal can also potentially concentrate and radiate EMFs from high-frequency sources such as FM radio and TV frequencies and nearby cell sites.

Secondly, bedsprings can become easily and permanently magnetized and act like magnets. Not all magnets are bad. Some doctors use them in direct, controlled, short-term applications including healing bones. But the metal in your bedsprings acts like many random magnets, affecting your whole body—not just specific points—and your exposure is long term. Magnetized metal radiates EMFs called direct current static magnetic fields. In experiments with animals, some scientists have found a correlation between exposure to these types of fields and tumor growth, weight gain, bacterial growth, and orientation to the earth's magnetic north.

The human body is an electromagnetic organism naturally oriented to the earth's magnetic north. When we sleep in a metal bed or over metal bedsprings we are disconnected from the earth's beneficial magnetism. And this may have significant long-term effects. Scientists from the Institute of Geology at the University of Edinburgh in Scotland found a correlation between heart attacks and subtle changes in the earth's magnetic field.

The effects of EMFs are subtle. But because we sleep in such close proximity to metal for one third of our lives—when we are most vulnerable—these potential effects are no less important than those researched in the large-scale studies. For more information about the science and health effects of EMFs, go to http://BuildingBiology.net.

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