

Choked by the electromog

By ALASDAIR PHILIPS, Daily Mail 11:11am 12th June 2006

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Surrounded by 'electromog': From a mobile phone to electric hobs

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In a controversial analysis, scientist Alasdair Philips argues that many everyday gadgets are filling our homes with electromagnetic fields - and doing untold damage to us all:

Picture a typical British household at tea-time on a weekday evening. The children are sitting in the lounge, multi-tasking, which means they are

simultaneously watching a DVD on a gigantic flat-screen TV, wrestling with a GameBoy, and frantically texting on mobile phones.

Upstairs, Dad is sitting, face screwed-up, in front of a flickering screen, sending a few business e-mails via a high-speed broadband connection. In the kitchen, Mum is bringing a pan of pasta to the boil on her spanking new ceramic hob.

It's hard to imagine that less than 100 years ago, the man-made energy that powers such labour-saving devices, communications equipment and entertainment systems was simply not available to the ordinary person.

Sinister side

But there is a more sinister side to the relentless winking lights, hum and high-tech glamour of the machines that have become such an essential part of our 21st-century lifestyle.

For those much-loved electronic appliances see not only that we are well looked after, but also that we are surrounded by a potent sea of electromagnetic fields (EMFs), a kind of 'electrosmog' that swirls invisibly around and through us every day.

This does not come just from domestic appliances, but also power lines, the wiring in our home, and telephone, mast and radio signals - and I believe it is getting more aggressive, more dangerous and harder to avoid every day. In fact, our exposure to electrosmog - the fields of force associated with electric charges in motion - has risen to a point where we are now experiencing levels that are millions of times higher than those encountered by anyone living at the start of the 20th century.

Back then, people had to contend only with natural electromagnetic fields - such as the earth's geomagnetic field, which causes compass needles to swivel north. As a result, all of us have become guinea pigs in a great electromagnetic experiment that I believe is the cause of much of our daily stress, and may also be responsible for serious health problems for you and your family.

I first began thinking about electromagnetic fields in the context of human health in the Eighties when, as an electronics engineer and scientist, I was asked to look into claims that antinuclear war protesters on Greenham Common were being zapped with pulsed microwave radiation from prototype 'non-lethal' weapons then under development by the US military.

By 1989 it had become clear that there were questions being asked all over the world about the safety of EMFs, and so I set up the independent lobbying organisation, Powerwatch, to look into it.

We discovered that some of the first warnings about EMFs were made as early as 1972, when scientists in the Soviet Union reported strange health effects in railyard workers who were exposed to high levels of electromagnetic fields. The workers experienced increased heart disease,

nervous disorders, unusual changes in blood pressure, recurring headaches, fatigue, stress and chronic depression.

Now the phenomenon is much more widely recognised, particularly when it comes to mobile phone technology. There are mounting claims, for example, that people who use their mobile phone frequently or over long periods develop symptoms ranging from headaches and mild disorientation to cancers of the brain and neck. These claims have been disputed, but do we really know for sure?

And Sir William Stewart, the Government's chief adviser on mobile phone safety, has called for a ban on erecting phone masts near schools and warned of the risks of allowing children, whose thin skulls can more easily be penetrated by radiation, to use mobile phones.

But it is not simply mobile phones of which we should be wary. One of the more alarming developments of the past few decades is the rise of microwave EMFs:

Microwaves which are very high - frequency and rarely found in nature - are used not just in microwave ovens and mobiles, but also for cordless telephones (often erroneously thought to be a safe alternative to mobiles because they are run off landlines) and video and data transmission, and I believe they are pulsed out in a way that can adversely affect your health.

Household equipment that carries a risk rated from 1 to 5 and how to reduce your exposure:

CORDLESS LANDLINE TELEPHONES

DANGERS: Cordless phones are now the standard in most households and, like mobile handsets, they emit microwave radiation - from both the base unit and the handset itself - that is alleged to cause brain tumours, breast cancer, dementia, DNA damage, concentration problems, memory loss, mood and behavioural changes and fertility problems.

SOLUTIONS: Install a landline telephone that plugs into the wall-socket and remains attached to it by a wire and try to use it for most calls. If you can't do without a cordless phone, buy an analogue model, as their base units emit radiation only when the phone is active.

Avoid the newer digital phones (Digital Enhanced Cordless Telephones, or DECTs) as their base units emit radiation 24 hours a day, whether you are using them or not.

RISK RATING: 2 to 5 (analogue cordless phone score 2, older digital handsets 3, DECT 5)

MOBILE TELEPHONES

DANGERS: Mobile phones have long been the subject of claims that they are a health hazard. While conclusive evidence has yet to be produced to prove

this, I believe they are a danger when used frequently or for long periods of time. They emit radiation even when they are on standby.

SOLUTIONS: Mobiles transmit at maximum power when you switch them on and off, when connecting and disconnecting a call, and while ringing, so hold the phone away from your body while dialling out, and don't put it to your ear until the person you are calling has answered. Use a hands-free kit with air tubes whenever possible and keep calls short.

When texting, hold the phone away from your body when sending the message. Store a phone in your handbag or briefcase, not in a pocket and not in a baby's pushchair. Don't keep your phone on a bedside table at night, particularly if it is charging - because the charger unit gives off high levels of EMFs.

Avoid using music players built into mobiles at all costs. The signals produce microwaves while you are listening to music.

RISK RATING: 5

COOKERS

DANGERS: The magnetic fields from a ceramic or glass-topped hob can be lower than those from a traditional electric hob, but some halogen rings can give off particularly high levels.

SOLUTIONS: I recommend that as well as avoiding halogen rings, you avoid magnetic induction hobs because, although they are very energy efficient and fast to use, they produce significant levels of EMFs. Safest of all are gas cookers, or slow cookers which use very low power.

RISK RATING: Ceramic or glass-topped hobs 1, magnetic induction hobs 5.

MICROWAVE OVENS

DANGERS: There have been claims of serious biochemical changes to the structure of proteins and amino acids in microwaved food and I believe that, for safety's sake, it is important to avoid meals cooked in this way if possible.

SOLUTIONS: Increasingly, there are allegations that the packaging of microwave-ready foods may release harmful toxins, so if a microwave must be used, put the food onto a plate before cooking it.

Be aware that radiation leaks from the seal of the microwave oven door, so children should not be allowed to stand nearby when it is on.

RISK RATING: 5

LIGHTING

DANGERS: Fluorescent lights, energy-saving bulbs and halogen lights all carry a risk.

SOLUTIONS: Use ordinary bulbs and non-halogen spotlights, which do not cause an EMF problem. Beware of cheap and old dimmer switches because their wiring can significantly raise the levels of electromagnetic pollution.

RISK RATING: 3 to 5, with dimmer switches being the biggest danger.

COMPUTERS

DANGERS: Computers and their monitors give off fairly low levels of EMFs, but if you are still worried, look out for the 2005 DELL Inspiron range of laptops which come with a three-pin mains cable and earthed adaptor and do not emit electric fields.

The biggest risk to computer users comes from broadband systems that allow 'wireless access' and in doing so fill your house with pulsating microwave radiation at all times.

SOLUTIONS: All VDUs - including TVs and office computers - give off a higher level of EMFs from the back and sides, so at work, it is important to make sure you are at least 3ft away from the rear of the monitor of the colleague who sits opposite you.

RISK RATING: computers 1, wireless internet connection 5

ELECTRIC BLANKETS

DANGERS: These can create a magnetic field that penetrates throughout the body. Most also produce an electric field.

SOLUTIONS: If you are concerned about EMF exposure, do not use one at all. If you must use one, always switch it off at the wall before you get into bed.

RISK RATING: electric underblankets 1, overblankets 4

DEEP FAT FRYERS

DANGERS: These pose a high risk because a deep-fat fryer will give off high EMFs as the oil is heated. Regularly reheated oil is likely to contain carcinogenic compounds generated at the high temperatures, which will then attach themselves to the fried food.

SOLUTIONS: You should avoid deep-fat frying.

RISK RATING: 5

PLASMA SCREEN TELEVISIONS

DANGERS: TVs with a plasma screen give off high magnetic and electric fields that reach a 6ft radius around them. However, battery operated remote controls are quite safe.

SOLUTIONS: Always sit at least 6ft from the screen - and remember that EMFs travel through walls. If you have a plasma screen TV in your bedroom, it should be at least 6ft from your pillows.

RISK RATING: plasma screen TVs 4

EXTRACTED from THE POWERWATCH HANDBOOK by Alasdair and Jean Philips, published by Piatkus on June 22 at £10.99. © Alasdair and Jean Philips. To order a copy (p& p free), telephone 0870 161 0870. More information: www.detect-protect.com