



# Wireless and clueless

The studies are out, the jury is in. It's time we looked more carefully at the **matrix of radiation we play with every day**, in the guise of communication

By Nikki Graham

“U

*nfortunately, no one can be told what the Matrix is. You have to see it for yourself.” The Matrix Reloaded*

It appears that we've been the subject of “the world's largest human biological experiment in the history of

civilisation” – to quote a prominent neurosurgeon – and we didn't think twice before entering the guinea pig cage.

According to the documentary *Full Signal*, which premiered in December 2009, there are an estimated 4 billion cell phone users around the world, and the numbers are growing daily. To give us the kind of connection we think we want, millions of wireless towers and antennas have been set up in suburbs, on office rooftops, on telephone or

electricity poles – and in our homes. The electromagnetic field created by all this connectivity disrupts the body's normal cellular activity and makes some of us extremely ill, say the doctors and scientists documentary director Talal Jabari interviewed in 10 countries and six US cities.<sup>1</sup>

So what exactly does this electromagnetic field do to us? According to Jabari, "As the research for the film progressed, we ran into a concept called electro-hyper sensitivity or EHS... it is like an allergy to electro-magnetic fields. Just like any other allergy, there are degrees of sensitivity to the cause, and some people get headaches or a rash, while others have been hospitalised." He adds, "Some are affected more by computer screens, some by cell phones, some only by cell towers."

According to Dr Leif Salford, Professor and Chairman of the Department of Neurosurgery, Lund University, Sweden, cardiovascular disease, Parkinson's, Alzheimer's, multiple sclerosis and myalgic encephalomyelitis have all been associated with exposure to electromagnetic fields, caused by the ever-present radiation levels we're living in, thanks to our hi-tech toys.

Dr Paul Rosch, clinical professor of medicine and psychology at the New York Medical College, says: "It is generally not appreciated that there is a *cumulative* effect (on our bodies) and that talking on the cell phone for an hour a day for 10 years can add up to 10,000 watts of radiation. That's 10 times more than you get from putting your head in a microwave oven. A two-minute call can alter brain function in a child for an hour, which is why other countries ban their sale or discourage their use under age 18."

Brain researcher and author, Dr Eric Braverman, adds: "There is no question EMFs (electromagnetic fields) have a major effect on neurological functioning. They slow our brain waves and affect our long-term mental clarity. We should minimise exposure as much as possible to optimise neurotransmitter levels and prevent deterioration of health."

But let's not just hear it from the docs. Scientists have been rounding up the evidence worldwide with alarming speed.

## THE INVISIBLE PLAGUE

In 2002, French medical specialists found that people living close to cell towers suffered brain disturbances and cardiovascular problems, extreme sleep disruption, chronic fatigue, nausea, skin problems and irritability.<sup>2</sup> A 2003 Spanish study reported that people living within 1,000 feet of cell phone antennas experienced significant illness at an average power density of 0.11 to 0.19 microwatts/cm<sup>2</sup>, which is thousands of times lower than international exposure standards.<sup>3</sup>

In 2004, Israeli researchers reported that people who had lived near a cell tower for up to seven years had a cancer rate four times higher than the norm, with breast cancer most prevalent.<sup>4</sup> An Egyptian study reported in 2006 that people living near cell phone towers were at high risk for developing neurological and psychiatric problems.<sup>5</sup>

In Australia, rooftop transmitters have been found to be especially deadly. In 2006, the top floors of a Melbourne University office building were closed after a rapid succession of brain tumour diagnoses in staff drew widespread media attention to the risks of transmitters on rooftops.<sup>6</sup> Similarly, ABC's Brisbane television complex, topped with satellite dishes and radio antennas, was the site of a well-publicised breast cancer cluster among workers.<sup>7</sup>

Also in 2006, a Swedish study led by Professor Kjell Mild, a biophysicist, found heavy users of cell phones had a 240% increased risk for a malignant tumour on the side of the head the phone is used.<sup>10</sup> Professor Mild states: "The more you use phones and the greater the number of years you have them, the greater the risk of brain tumours... my advice is never to use one without a hands-free headset."

In April 2007, *The London Times* reported an alarming number of cancer clusters in neighbourhoods dominated by cell phone towers, including in Warwickshire, where 31 cancers were found clustered around a single street.<sup>8</sup>

Also in 2007, German researchers found that people living within 1,200 feet of a transmitter site had a high rate of cancer and developed tumours about eight years earlier than the

national norm. People living there had a breast cancer rate seven times the national average.<sup>9</sup> Radiation sickness is now so prevalent in Germany that thousands of doctors have signed the Bramberger and Freiburger Appeals, petitioning the government to launch a public health enquiry. The German doctors say they are dealing with an epidemic of severe and chronic diseases in old and young patients due to wireless radiation. The appeals call for a massive reduction in exposure limits, zero expansion of cell phone technology, cell phone-and antenna-free zones, a ban on cell phone use by children, and a ban on cell phones and digital cordless phones in schools, hospitals, nursing homes,

public buildings and public transport.

In 2008, a Tel Aviv University study found that heavy cell phone users have a 50% increased risk of developing a tumour of the main salivary gland. The risk rises if users clamp the phone to the same ear, don't use hands-free devices or live in rural areas where cell phones have to boost transmission power levels.<sup>11</sup>

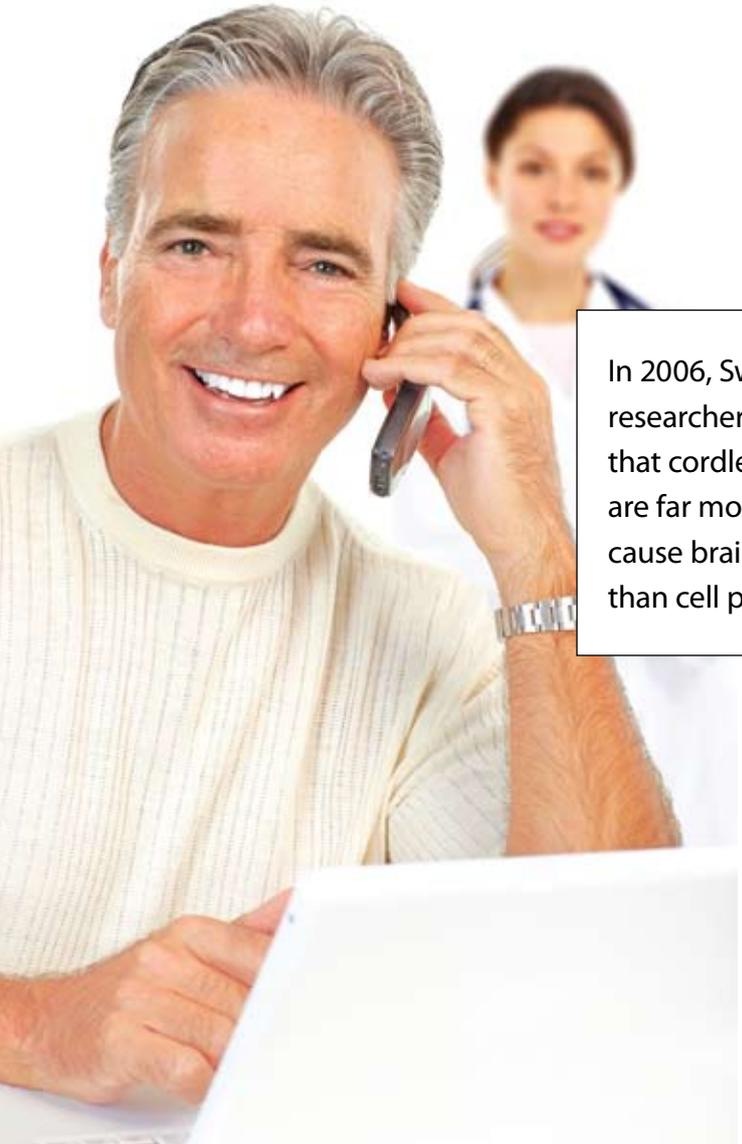
Finally, in late 2009, the Interphone study, a 13-country investigation into a brain cancer-cell phone link, revealed a "tipping point" level of exposure that causes cell phone use to become deadly. Six of eight Interphone studies found a rise in the risk of glioma, the most common brain tumour. Another two studies reported a higher risk of acoustic neurinoma – a tumour located between the ear and the brain – after using cell phones for 10 years.<sup>12</sup>

### FOOLED BY ASSUMPTIONS

We're so used to studies being done on medicines and food substances before they're judged safe for human use and allowed into society, that we never questioned the so-called safety of something as mundane as the cordless phone. Which, it turns out, could be up to 100 times worse than a cell phone, especially if used in a built up area. Cordless phones constantly emit high levels of radiation, so much so that in 2006 Swedish researchers warned that they are far more likely to cause brain tumours than cell phones.<sup>13</sup> The reason for this is the frequency of the pulse.

Cordless phones pulse at 100Hz while a GSM cell phone pulses at 217Hz. The lower the pulsing frequency, the stronger the risk of electromagnetic radiation.

A cordless phone is literally a cell phone, and its base is a mini cell phone "tower" in your house or office. Because of the way in which the technology works, the charger constantly emits radiation at full strength, even when the phone isn't in use. As does the handset when it's off the charger. Emissions from a cordless phone's charger can be as high as six volts per metre – twice as strong as those



**In 2006, Swedish researchers warned that cordless phones are far more likely to cause brain tumours than cell phones**

found within 100m of cell phone towers. And even 2m away from the charger the radiation is still as high as 2.5 volts per metre – 50 times what scientists regard as a safe level. Only when you're 100m away from the phone does the radiation drop to a safe 0.05 volts per metre.<sup>14</sup>

### CHILDREN OF THE MATRIX

In 2004, a study reported that a call lasting only two minutes can open the blood-brain barrier in children as well as adults, allowing toxins in the bloodstream to cross this blood vessel gateway into the skull and attack brain cells. The same two-minute cell phone exposure also disrupts the natural electrical activity of a child's brain for up to an hour afterwards.<sup>15</sup>

Commenting on this study, Dr Gerald Hyland, a professor of biophysics at Warwick University and former adviser to the British government, says: "The results show that children's brains are affected for long periods even after very short-term use. Their brain wave patterns are abnormal and stay like that for a long period." Dr Hyland believes that the disruption to the brain could cause children to lose the ability to concentrate and remember.<sup>16</sup>

Dr Elisabeth Cardis, head of radiation research at the Centre for Research into Environmental Epidemiology, in Spain, warns: "Children have thinner skulls so more of the radiation is absorbed, the composition of the brain tissue is more conductive and their cells are dividing more quickly, so damage gets quickly replicated."<sup>17</sup>

In September 2008, the European parliament voted overwhelmingly to urge ministers across Europe to introduce stricter limits for exposure to radiation from cell and cordless phones, wi-fi and other devices, partly because children are so vulnerable to them. The European Union's decision was timely. A week later, the results of a study by Professor of oncology, Dr Lennart Hardell, were published, showing use of more than an hour a day of a cell or cordless phone before the age of 20 raises the risk of brain cancer fivefold – more than double the risk previously reported in adult studies.<sup>18</sup>

Africa and Asia aside, the rest of the world is wising up. In

Russia, the Health Ministry advised the government to ban cell phone use for under-18s. Toronto's Department of Public Health has warned that children under 8 should only use cell phones in emergencies and teenagers should limit calls to 10 minutes or less. In Palm Beach, Los Angeles, the province of British Columbia and New Zealand, cell phone towers and antennas have been banned from schools and their surroundings.<sup>19</sup> In Scotland, cell phone towers are not allowed to be located near hospitals, schools, or homes. In Salzburg, Austria, wi-fi is banned in schools. In France, the government has banned cell phones from primary schools, companies are now required to make headset-only phones and libraries in several cities have switched off wi-fi internet.<sup>20</sup>

Professor Devra Davis, from the University of Pittsburgh Cancer Institute stated to *CBC* news, "Because the latency between exposure and brain cancer could be 20 or 30 years...we are basically treating ourselves like lab rats in an experiment without any controls."<sup>21</sup> Sobering words indeed, but will we heed them?

### FAR FROM THE MADDING CROWD

While filming *Full Signal*, Jabari recounts how they struggled to interview the ex head engineer for Ericsson in Sweden. The man concerned had such an acute case of EHS that he was forced to leave his job and live in a rural area, devoid of electricity.

With afflictions like these it's no wonder that the health departments of some countries have officially recognised the radiation problem as an illness. Sweden now has a medical register of 285,000 EHS sufferers and California 700,000.

The highest profile person yet to announce that cell phones, cordless phones and computers make her ill is none other than Dr Gro Harlem Brundtland, former Prime Minister of Norway, former Director General of the World Health Organisation, a medical doctor and master of public health. It's deeply ironic that such a public, global figure has been trying in vain to communicate the dangers of our wireless toys to us for the past decade. Perhaps we can finally get over our infatuation with the wireless matrix and listen? **HQ**

*Continued overleaf*

### THE TOP 10 SAFER PHONES

The Environmental Working Group has published a list of over 1,000 phones on its website, ranking them according to radiation levels. According to their study, the phones emitting the most radiation include the BlackBerry Curve 8300 and 8330, BlackBerry Bold 9000, and the Palm Treo 600 and 650. See the list below of 10 phones with the lowest radiation levels and visit [www.ewg.org](http://www.ewg.org) website to check your phone's radiation levels.

#### TOP 10 SAFER PHONES

1. Sanyo Katana II
2. Samsung Rugby (SGH-a837)
3. Blackberry Storm 9530
4. Samsung I8000 Omnia II
5. Samsung Propel Pro (SGH-i627)
6. Samsung SGH-t229
7. Helio Pantech Ocean
8. Sony Ericsson W518a Walkman
9. Samsung SGH-a137
10. LG Shine II.

**Source:** [www.ewg.org/cellphone-radiation](http://www.ewg.org/cellphone-radiation)

### ANTI-RADIATION PROTOCOL

Ginkgo biloba extract (250mg daily)

Co-enzyme Q10 (50-150mg daily)

Melatonin (1.5-3mg at night)

Zinc (20mg daily)

Vitamin C (1,000mg daily).

#### Resources

[www.Fullsignalmovie.com](http://www.Fullsignalmovie.com)  
[www.sageassociates.net](http://www.sageassociates.net)  
[www.bioinitiative.org](http://www.bioinitiative.org)

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### TIPS TO REDUCE RADIATION

1. **Switch off** cell phones and cordless phones whenever you can
2. **Use the speaker** or a non-transmitting ear device. Headsets may increase the radiation to your brain by acting as an antenna. With a speakerphone the radiation risk is almost zero
3. **Sleep safely** Remove wireless and cordless phones from your bedroom
4. **Landlines rule** Switch back to corded landline phones instead of cordless ones
5. **Digital hurts** Digital (pulsed) technology is more harmful at lower levels of power than analogue technology
6. **Hands off** Use a hands-free kit to reduce radiation, but remember that emissions can still travel up a headset wire, into your head. Keep your cell phone at least 15cm away from your body whenever it's turned on
7. **Only use your phone in a good signal area** (in low signal strength areas phones boost their power output)
8. **Use newer generation phones** which use much less power.

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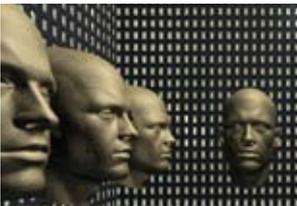
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