

Deaths from Asbestosis emerged suddenly years later after exposure – Could our Electronic Devices be responsible for a similar health crisis? [UNPUBLISHED]

Over the past twenty years, along with colleagues we have been monitoring rises in neurological deaths, such as Motor Neurone Disease, Multiple Sclerosis, Parkinson's Disease, Multiple Systemic Atrophy, as well Alzheimer's and the dementias etc ¹⁻⁵. Initially, only eleven of the twenty-one Western countries showed substantial rises (>50%) in total neurological deaths but by 2015, every country's neurological death rates rose substantially. For example between 1989 and 2015, UK total all-age rates went from 221 per million (pm) to 424pm (+92%) and in the USA 182pm to 539pm (+196%). In 1989 the USA had been the 6th lowest of the 21 countries but now are second highest!. Worse, these death rates are accelerating, for example between 2005 and 2015 British people aged 55-74 years old, neuro death rates went from 449pm to 653pm (+47%) and in America from 541pm to 713pm (+31%) reaching record highs in this age group.

Some have tried to explain these rises as due to people living longer as diseases such as Alzheimer's and Parkinson's are associated with advancing years. Yet the British over-75's population rose 29% over the period 1989-2015 but their neurological death rates increased more than three-fold. Whilst American over-75's population increased by 50% but their neuro deaths rose more than four-fold. Also such criticisms ignore the rises in early-onset-dementias, so in Britain we now have the charity Young Dementia UK, and a Young Person's section of the Parkinson's Society, many of whose clients are in their 50's and even in their 40's, which would have been unthinkable twenty-five years ago.

Dr. Anne Silk of Bournemouth University and I recognised these increases must have been triggered predominately *by multiple interactive environmental* factors. Our new research will be controversial and very likely unwelcome as we ask are *increases in background electro-magnetism* from electronic devices beginning to impact upon human health becoming the tipping point for these more recent neurological increases?

There are natural sources of electro-magnetism such as the earth's Electro-Magnetic-Field and certain rocks, which create a very low field. What has changed over the past 25 years are the extent of electronic devices in home and work-and-play places, which give off an electric charge, for example:-

At Home: - FM Radio Antennas 80-800 MHz; *Mobile Phones 453-1980MHz; Microwave ovens 915-2450MHz; Cordless phones 1800-1900MHz; Bluetooth devices 2450MHz.*

Near Home?:- Mobile Phone base station 463-2170MHz; *Surgical equipment 2450MHz.; Wireless Local Radio 2450-5000MHz and Radar 30-30,000MHz (300 GHz).*

In a seminar with a group of sceptical medical students – all born during the digital age, I asked the men to stand up, raise their right hands in the air and point to where they kept their mobile G3/4 phones. Most pointed to their trouser pockets but stopped laughing when it was explained that they were bathing their testicles in 450Mhz or even higher with newer models?

Put another way, we cannot see, feel or smell electro-magnetism, but if it was water, most of us would

be living in a very faint mist, some under a light drizzle and others in occasional shower.

What is the impact multiple environmental factors and raised electromagnetism? Humans evolved exposed to two forms of radiation, solar and the Earth's Electro-Magnetic-Field (EMF) – both essential to life. But if we have too much sun we burn, but what if we have too much EMF?

We do not claim that EMF is the *primary cause but rather is the tipping point* on top of the increasing multiple *interactive* pollutants - petro-chemicals, agricultural, industrial and domestic chemicals. All in one way or another are associated with occupations which have a higher proportion of neurological illness. How does EMF interact with them all to cause neurological disease?

The brain and spinal cord are essentially an electro-biochemical organ making us a natural antenna and modern neuroscience indicates electro-magnetism impacts upon the brain and whilst most of these digital devices have very low frequencies, many are increasingly are open to prolonged exposure.

When we talk in rates of neurological deaths, that is dry statistics, which hides the actual numbers of people now affected.

In 1989 in Britain there were a total of 8,256 people dying of a neurological disorder, by 2015 there were 89,840 such people, who died from what is often is slow prolonged deterioration. Whilst in America their neuro deaths went from 23,042 in 1989 to 405,992 people by 2015.

The impact on the person, their families and the services is considerable. In effect our research has exposed a 'hidden' epidemic in the 21 Western countries and worse, as we have shown, the rate of neurological deaths are accelerating.

Readers can examine the complex evidence for themselves in our recent online study "*Are Rises in Electro-Magnetic Field in the Human Environment, interacting with Multiple Environmental Pollutions, the Tripping Point for Increases in Neurological Deaths in the Western World?*" published in Medical Hypotheses, which draws upon data from across disciplines ⁶.

Of course there are huge benefits of the digital world and we do not want to stop it, only make it safer. But we fear the repeat of a previous acclaimed technology, asbestos, that took 20 years before the dangers were recognised and recent studies report that the 'epidemic' stemming for the asbestosis that started more than 30 years ago, now claims an annual 200,000 lives in the Western world ⁷.

Why do I compare the crisis to asbestosis? Because last year my young cousin, 20 years younger than I, died of asbestosis, with its twenty year onset, from which he had a difficult passing and neurological disorders take a long time to develop.

At the turn of the century national health and safety authorities responsible for monitoring digital devices were initially unperturbed but by 2016 the latest EU advice now strongly emphasizes the need for the cautionary principle as the evidence grows that electro-magnetism does impact upon health ⁸.

We would ask parents to take an ordinary compass around the various home digital apparatus - head-phones, mobiles, micro-waves, wall-size TV, conductive ovens, Wi-Fi, PC's etc, to see just how many sources of electro-magnetism they have in their home.

In one sense parents are part of a living experiment to discover whether low but prolonged exposure to electro-magnetism affects their children's developing brains.

Safety changes can but must be made quickly, to avoid any repetition of the disaster that ignored asbestos hazards. When the authorities recognise the under-lying neuro-science evidence of damage at cell level leading to the scale of the neurological mortality epidemic, we are confident that they can and will make the digital world safer, even if it might be a little more expensive.

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NB We were asked to under the review as we were the first to note significant rises!

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6.## Pritchard C, Silk A, Hansen L (2019) Are Rises in Electro-Magnetic Field in the Human Environment, interacting with Multiple Environmental Pollutions, the Tripping Point for Increases in Neurological Deaths in the Western World? *Medical Hypothesis*. 127:76-83.Doi.org./10.1016j.mehy.2019.0-018.

The Whole Study is Online- Medical Hypotheses, Science Direct .

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8.Belyaev I, Dean A, Eger H, Hubmann G, Jandrisovits R, Kern M, et al. EUROPAEM EMF Guideline 2016 for the prevention, diagnosis and treatment of EMF-related health problems and illnesses. 2017.*Rev Environ Health*. 33:363-97.

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