



This woman is one of more than 30 people in her neighbourhood to have have developed cancer. They believe two local mobile phone masts may be to blame.

Could they be right?

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## Cancer victims ask: "Is it the phone mast's fault?"

## Daniel Foggo and Maurice Chittenden

Margaret Hines-Randle is fighting cancer, but she is not alone in her struggle. In fact most of the people in her road are battling alongside her, since they have the illness too. At the most recent count, 30 of her immediate neighbours were either suffering with cancer or had already died from it.

"We are all in a line, it is quite extraordinary," said the 64-year-old, who was first diagnosed with breast cancer eight years ago. "It is a very dramatic cluster of cancer. The people in the house behind us and the one at the side have it. Both the people in the first and second bungalows in the road had cancer and died. Now the person who moved in to one of them has breast cancer too."

Just down the road at St Edward's Roman Catholic primary school, Pat Ward's pockets are full of paper tissues, but he doesn't have a cold. The deputy headmaster uses them to mop up the nosebleeds of his pupils: he finds that their noses haemorrhage with such frequency that a ready supply of tissues is a necessity.

Next door at the Woodlands special school, no fewer than seven of the 30-strong staff have developed tumours in the last few years, including Ward's 46-year-old wife Sally who teaches there. Two have died. A nearby caretaker has been diagnosed with a prostate tumour at the age of 37. Even the lollipop lady who helped the children to cross the road has died of cancer.

The cause of all this illness in Coleshill is not clear. But many of those living in the affluent Warwickshire town believe much of it can be attributed to a mobile phone mast which looms large over its southern half. The schools, which are adjacent to the 27m-high structure, have stood in its shadow for nearly 15 years.

More worrying perhaps is that although the Coleshill cluster is extraordinary, it is not unique. Tight bunches of cancers and other illnesses have been recorded around masts in other parts of the country, and fears about phone masts generally are widespread.

It is already acknowledged that there is a link between electromagnetic radiation from overhead power cables and childhood leukaemia - something that was also disputed for many years. Campaigners estimate that at any one time in Britain today there are about a thousand active disputes going on over phone masts.

There are already 47,000 masts in position, but the phone companies are putting more up every day and fears over their safety are growing fast.

Eileen O'Connor, a campaigner against mast proliferation and member of the Health Protection Agency's Electromagnetic Fields Discussion Group, said: "There is simply not enough care being taken with this technology. I have no doubt that we are looking at a major public health problem."

So are the masts safe? Are the levels of allowed radiation correct, and should ministers and regulators be doing more to protect people?

Last week a reporter from The Sunday Times posing as a homeowner approached the five main mobile phone network providers - O2, 3, T-Mobile and Vodafone - to inquire about the possibility of having a mast installed on his house.

All but Vodafone jumped at the opportunity and said they would pay between £1,000 and £2,500 a year for the privilege. They would even disguise the mast, so as not to annoy the neighbours.

Kevin Hull, a network consultant at O2, said: "We pay higher rents in city centres, lower rents in the countryside based on expected revenue.

"We do follow a code of best practice, which involves community consultation, but we can use a range of solutions to disguise the masts.

"The standard masts tend to blend in with street lighting columns. We also use replica telegraph poles made of glass-fibre and mock cypress trees with leaves."

Mike Yates, acquisitions manager at Orange, said his company could also help. "It will probably need planning permission, depending on what it is, and the neighbours would know. We have had them on houses as drainpipes but there is a cost element if we have to put stealth covers on them."

It is this combination of financial reward and stealth that has enabled Britain's phone companies to put up so many masts so quickly. It also explains why so many local communities are only now waking up to the potential health threat.

There is no doubt among scientists that electromagnetic radiation of the type emitted by phone masts can cause cancer and genetic damage at high intensities. However, the scientific community is divided over what emission levels are safe.

The industry in Britain is subject to guideline limits for emissions, which all its masts fall well within. But some scientists believe the limits have been set far too high. They point to other European cities, notably Salzburg in Austria, which has - on scientific advice - imposed radiation limits that are a fraction of the levels allowed in Britain.

Sir William Stewart, chairman of the Health Protection Agency, authored a report in 2000 which said that there was no conclusive evidence of health implications for adults, a view echoed by the World Health Organisation. However, in 2005 he issued a further report, Mobiles Phones and Health, in which he said young children should probably not be exposed to mobile phones. He has also said care should be taken that masts do not direct their strongest beams at schools.

"I can't believe that for three-to eight-year-olds they can be readily justified," he said. On phones in general, he added: "Just because there are 50m of them out there, doesn't mean they are absolutely safe."

Despite these worries, a BBC survey three years ago found that one in 10 schools were overlooked by a phone mast. According to another survey in London almost every school has a nearby mast.

In the case of both St Edward's, one of the top primaries in the country, and Woodlands, children and teachers have spent their daily lives being subjected to the output of a suspect mast sited just 40m away.

Two years ago - prompted by reports of people developing cancer - the parents of children attending St Edward's, together with the school authorities and a group of residents, began pushing for the mast to be removed. They organised surveys of health problems among the schoolchildren, teachers and nearby residents.

"There was a lot of foot-slogging and door-knocking and speaking to people at the school gates, but what we found was shocking," said Jacqui Slater, one of the organisers.

The results were indeed startling. In addition to the plethora of cancers, over half the children surveyed at St Edward's suffered headaches and more than a quarter reported regular nosebleeds and nausea. Among the staff at both schools almost all those asked felt fatigued and had sleep problems, with nearly half suffering dizzy spells and humming in their ears.

A survey of 1,300 nearby residents threw up a further surprise. In a single street, Castle Drive, and part of adjacent roads, 31 cases of cancer were found, a total of around one in every second person in the immediate area.

"When I saw the results I felt sick myself," said Pat Jones, another campaigning resident. "There is big money in mobile phones and yet the operators don't seem to want to know what is happening to people."

The raw data was passed to Dr John Walker, a physicist and member of the Electromagnetic Radiation Research Trust who has studied several similar instances of cancer clusters around other mobile phone masts elsewhere in the UK.

"The masts typically throw out microwaves in three directions, and where the beams hit the ground is where you will usually find the cluster of cancers or disease," he said.

"Coleshill has the largest single cluster I have yet seen, and this may be explained by the fact that Castle Drive is sited at the point where the beams from two masts converge, one of them at the school and another on the other side of the town.

"Residents and teachers are more likely to have health problems because they tend to be exposed to the microwaves for more years than pupils, who eventually leave the school."

For a while, tensions ran very high among the community. Parent protests were organised, with one day "strikes" in which they kept their children away from school.

For 12 months the campaign intensified. Letters declaring an intent to sue O2 if the medical evidence became stronger in the future were sent to the company, while the diocese sent protest letters too.

Mike O'Brien, the area's MP, was then asked by the campaigners to help. He approached the operators but deliberately fought shy of leading off with the residents' health concerns.

"I said to O2 that I wasn't going to put the case on medical grounds, which they don't accept are an issue, but on the fact that the school wanted the land on which the mast stands and the fact that it is an old mast and rather ugly and due for replacement," he said.

His approach, backed up by the strident voices of the campaigners and their extraordinary research, has now resulted in O2 agreeing to tear down their mast. Alternative sites have been found far away from the two schools.

But conflicts over existing and planned masts look set to increase as the rolling out of third-generation (3G) technology, which allows mobile phones internet access, necessitates further antennae across the country.

However, some feel that mutually satisfactory agreements between mobile phone companies and angry residents can be made if they follow the model of Coleshill. O'Brien said: "There is perhaps a precedent here. A lot of the problem stems from residents feeling that something is being done to them that they are unaware of and have no say in."

However, for Hines-Randle and her neighbours who have already developed tumours, the fight goes on. "I don't know whether my cancer was caused by the masts," she said last week. "But it is worth someone looking further into it."

## The march of the mobile masts

- About 60m mobile phones are used in the UK, supported by approximately 47,000 masts, also known as base stations. It is estimated that protests by residents unhappy over their proximity to masts number up to 1,000 at any one time
- Since mobile phones were launched in the 1980s, the market has mushroomed. The licences to operate the latest generation of phones, known as third generation or 3G, were sold by the government for £22.5 billion seven years ago
- The British government has adopted guidelines issued by the International Commission on Nonlonizing Radiation Protection (ICNIRP) which state that base stations should not emit more than 10 watts per square metre of electromagnetic energy, depending on the frequency used. In reality most give out only a minute fraction of this amount
- Some scientists have suggested, however, that ICNIRP's guidelines should be reduced more than a thousandfold as evidence of links to cancer exist well below its threshold
- Sir William Stewart, chairman of the UK's Health Protection Agency, has called for more discussion on the issue and urged a "precautionary approach" to the technology. But he does not accept that there are any proven links with ill-health
- The existence of phone masts at and near schools has become particularly controversial. The Mobile Operators Association says that fewer than 2% of masts are sited at schools, but many are positioned nearby instead. One recent survey claimed that every school in London was within a short distance of a mast.