



Digital Cordless Phones (DECT)

Cordless phones have been steadily growing in popularity over the last few years and are now in millions of homes, shops, offices and other places throughout the UK.

They are found in living rooms, desktops and by the bedside.

They are taken for granted as an everyday item and barely even considered beyond that.

What's Wrong With DECT?

Cordless (DECT) phones work by using microwave technology – the phone itself, when it is being used, **emits microwave radiation** much as a Mobile Phone does, and its cradle continues to emit microwave radiation even when the phone is not being used. This clearly leads to similar health effects as other microwave emitting devices such as Mobile Phones and their Masts.

With DECT phones (as with Wi-fi), anyone may be sitting, playing, working or sleeping with their heads or bodies nearby for hours at a time receiving a continuous dose of microwave radiation.

So may their neighbours if the DECT phone or base cradle is near to their house or garden for a distance of up to 300m.

Wherever you use a DECT phone you, any neighbours, workers and shoppers, etc. will be receiving microwave radiation - whether or not the phone is being used. This is a significant health hazard to all of you in your house, and to your neighbours and friends, and also in those other situations mentioned above.

One of the most worrying problems about most cordless phones is that part of the DECT specification they use calls for the base cradle to communicate with the handset(s) continuously which means that **pulsed microwave radiation is emitted constantly** regardless of whether you are making a phone call or not.

The microwave signals from DECT phones and base cradles penetrate solid brick walls and flesh 24 hours a day, seven days a week whilst powered. As well as cordless phones, DECT is used by home hubs and some baby monitors.

DECT phones give off mobile phone type microwave radiation and you can now get mobile phones that will log onto a DECT base-unit and use your land line when at home but the nearest Mobile Phone Mast when you are away from home - automatically. That is how similar the signals, and the devices, are.

In 2008, Dr V G Khurana, an Australian brain surgeon, published research findings saying "*It is anticipated that this danger has far broader public health ramifications than asbestos and smoking, and directly concerns all of us, particularly the younger generation, including very young children,*" and that "*there is currently enough evidence...available to warrant Industry and Governments alike taking immediate steps to reduce exposure [to microwaves]...and to make consumers clearly aware of potential dangers and how to use this technology sensibly and safely.*"

A number of studies have found between about a 2 and 4 fold increase in the risk of developing a malignant brain tumour on the same side of the head as the preferred side for mobile or cordless phone (e.g. DECT) use. One study was based on the analysis of 1,600 brain tumour victims who had been using mobile phones for up to 10 years before being diagnosed. Professor Kjell Mild, a Swedish biophysicist, who has produced a number of many leading mobile-phone health effects papers, now states: "*The evidence for a connection between phone use and cancer is clear and convincing. The more you use [mobile or cordless] phones and the greater the number of years you have them, the greater the risk of brain tumours.*"

Unlike mobile phones, most DECT cordless phones work at a fixed power output. Mobile phone handsets turn their power down to the lowest level possible, so when you are near a Mobile Phone Mast this can be much lower than a DECT cordless phones.

In tests carried out by a Mast Sanity volunteer the DECT base cradle was shown to be constantly transmitting, even when the handset was in the cradle (i.e. when the phone itself was not being used), giving a meter reading of **10 times** higher than Liechtenstein allow for their Mobile Phone Masts or more close up, with a still highly significant reading of over **4 times** this limit a distance of 1 metre or so.

The DECT handset, when activated, also gave a meter reading of **10 times** the Liechtenstein limit or more close up – towards the maximum reading on the meter of 6 V/m – not good news especially if you use cordless phones for any period of time.

In 2006 The German Radiation Protection Authority (Bundesamt für Strahlenschutz – BfS) issued a warning against the indiscriminate use of DECT phones.

Europe's top environmental watchdog, the EEA, is similarly concerned - calling for immediate action to reduce exposure to radiation from Wi-Fi, mobile phones and their masts. It suggests that delay could lead to a health crisis similar to those caused by asbestos, smoking and lead in petrol.

Professor Jacqueline McGlade, the EEA's executive director, said: "*Recent research and reviews on the long-term effects of radiations from mobile telecommunications suggest that it would be prudent for health authorities to recommend actions to reduce exposures, especially to vulnerable groups, such as children.*"

In late 2007 an international group of 14 scientists, researchers and public health policy professionals released a report – The BioInitiative Report - concerning microwave exposure and concluded that "*The body of evidence at hand suggests that bio-effects and health impacts can and do occur at exquisitely low exposure levels: levels that can be thousands of times below public safety limits*". Additionally the report concluded that it is the information carried by electromagnetic radiation (microwaves) (rather than heat) that causes biological changes. This echoed the findings of the earlier Ecolog Report a counterpart of the better-known Stewart Report. In 2007 in Australia the Democrat Party, the 3rd largest political party there commissioned its own report which backed up the findings of the BioInitiative Report.

Ending in 2004 the EU backed REFLEX study (12 research teams in 7 countries) researched the effects of electromagnetic fields on human cells in vitro (in a lab). This study also found evidence for single and double DNA strand breaks and other cell damage which could lead to cancer.

Some Scientists have also found that levels of nitric oxide and calcium ions in the body are upset by microwaves. Too much nitric oxide can lead to Multiple Sclerosis, diabetes and cancer, whilst too little can cause high blood pressure and damage your arteries.

Calcium ions are used by cells to communicate. If they leak out of cells they stimulate cancer cell growth. If too many get into cells the cells get damaged and your DNA gets broken up. This damages fertility.

What Can I Do?

By far the best solution is to use traditional 'corded' phones. If you need more than one telephone for your line, you can easily obtain telephone extension kits from DIY stores or from Maplin etc. for just a few pounds, and can put the wires near-invisibly on skirting boards and under carpets. You can use a single extension kit to run a phone line up the stairs to a bedroom with little effort.

Wire some extra telephone sockets into the house (and even up the garden into shed or garage) and buy a few more wired phones (you can get some for less than 10 pounds each).

If you really, really can not do without a cordless phone there is the option of 'low radiation' DECT phones. In the UK these are only manufactured by Orchid.



With these 'low radiation' DECT phones, there are no microwave emissions when the phone is not being used. There will be the usual amount of radiation when the phone is being used, of course. When a call is ended both the handset and the base station go into 'sleep mode' (no microwave radiation) until either a call is received or made. There is no need to return the handset back to the base station for 'sleep mode' to

become operative (N.B. only for the Orchid LR4610, other Orchid models require the handset to be returned to the base cradle to be switched off). The handset/base cradle adjust their power output (microwave emissions) depending on how far away the base is from the handset. So, if you make a phone call within a few metres of the base cradle rather than, say, from 100 metres away, then the microwave radiation you will receive while making the phone call will be far less - reduced by as much as 75%.



However, whilst in use the Orchid handset and base cradle do emit microwave radiation, so all calls should be kept to a minimum to reduce exposure.

If you need to protect yourselves from DECT from neighbours (remember microwave radiation from DECT can extend for up to 300metres (and travels through walls, etc.), so it is not just your immediate neighbours from whom you may be receiving DECT signals), there are shielding materials that stop much of the microwave radiation. Select "Screening" from the website below for more details, and tell others about this too.

We know that the Industry say that this technology is all safe – they have a vested interest, of course. Since when should we listen and give so much weight to those with vested interests amounting to billions of pounds and more in their products? When else does this happen, that we listen most to those who make and gain from the product, instead of those independent of it? If nothing else, please look into the facts for yourself - start looking at the Research section at the website below and its references to Independent Research. (Rev. 09/11/2008)



www.mastsanity.org

Calling for Environmentally and Biologically safe communications networks and radio frequency devices

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