

**German Federal Agency For Radiation Protection  
(Bundesamt für Strahlenschutz – BfS)**

Press Release

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**DECT – The Radiation Source at Home**

**BfS: Cordless Phones radiate unnecessarily**

A cordless phone of DECT standard is often the strongest source of high frequency electromagnetic radiation in a private home. To renounce your cordless phone as a precautionary measure will contribute to minimise your personal radiation exposure. "However, it would be possible for the industry to develop DECT phones which could address the issues of precaution and radiation protection better than the current devices" said Rüdiger Matthes, expert of the Bundesamt für Strahlenschutz (Federal Radiation Protection Agency)

Cordless landline telephones of DECT standard have no output control to regulate power output according to the actual power needed. Therefore, the base station and the handset are permanently emitting radiation at the same power level during a call, no matter whether the user holding the handset is one meter or 300 meters away from the base station. Matthes: "Therefore, we demand that cordless phones should be developed to include a feature of power output control, so that the power output during a call would be adapted to the distance of the handset from the base station, using only the level of power necessary to keep the communication going."

To secure smooth operation, the base station also continually sends a control signal to the handsets, including when the phone is not in use. According to the BfS, cordless telephones should be devised so that they are emission free on stand by mode. "Luckily, there is a new generation of devices which fulfil just this requirement, and thus help to lower the radiation load in the home." declared Matthes.

To prevent possible health risks, the BfS recommends minimising personal radiation exposure. The following tips will help you if you are not prepared to completely give up the benefits of a cordless phone: Put the base station in a place where you do not spend much time, for example in the hall. Do not put it directly on your desk. Only make short phone calls. Use the latest generation of phones which are emission free when the handset is connected to the base station.

Background Information:

The basis of the assessment of possible health impairment from the high frequency fields of DECT phones are the guidelines recommended by the International Commission for Non-Ionising Radiation Protection (ICNIRP). The unit of measurement is the Specific Absorption Rate (SAR). The SAR describes how much radiation energy (W) is absorbed by the human body (kg). The maximum allowed SAR rate is as follows:

0.08 W/kg for the entire body

2.00 W/kg for parts of the body, for example for the head

DECT telephones have a SAR value for the head of less than 0.1 W/kg, a fraction of the recommended guideline of 2.0 W/kg.

According to current scientific knowledge nationally and internationally, there are indications for biological effects of high frequency electromagnetic fields – which are the means of transmission for DECT phones – however, there is no conclusive proof that they cause health damage, as long as the guidelines are not exceeded. A particular danger from pulsed systems, as it is often claimed, has not yet been scientifically proven.