



Questions and answers about radio waves from base stations for third-generation mobile telephony.

The introduction of third-generation mobile telephone systems (UMTS) will mean that new radio base stations will have to be built. Many of the associated antennas will be installed on the roofs and facades of buildings. The landlords and the people who live in the buildings sometimes ask about possible health risks from these antennas. Answers to frequent questions are set out below.

Will the antennas expose people living in the buildings to any new kind of "radiation"?

No. The antennas transmit and receive radio waves, which are needed for the new mobile phones to work. Just like light and infrared heat, radio waves are electromagnetic fields. For decades we have been surrounded by radio waves from radio, television and other transmitters. Relatively speaking, the amount of power transmitted by base stations for mobile telephony is very low.

Are there safety limits for exposure to radio waves?

Yes. An international expert group endorsed by the World Health Organization (WHO) has laid down guidelines which are recommended within the EU and in many countries all over the world. These limits have been set with wide safety margins in order to ensure that people, both adults and children, are protected from the health effects that extremely high levels of radio waves are known to have.

Will the people who live in the buildings be more exposed than others?

No. To give coverage over a wider area, the antennas direct the radio waves away from the buildings they are mounted on. They could be compared to the headlights of a car, which light up the road, but not the car itself. Inside and around the building, the intensity of the radio waves is far below the guidelines and is similar to that from radio and television transmitters.

Do the antennas transmit radio waves all the time?

Yes. The base stations transmit all the time. The amount of power transmitted varies, depending on how many telephones are connected.

Is it all right to be close to the antennas?

Yes. There is only a small area in front of the antennas where the exposure could exceed the safety limits. The size of this area varies from a few centimeters up to a few meters, depending on the amount of power transmitted. The antennas are installed in such a way that people cannot get into this area.

Can anyone guarantee that the antennas are harmless?

No. It is not possible to prove that something is completely harmless, so no one can guarantee that low-intensity radio waves are absolutely safe. What can be ensured is that people will never be exposed to levels that exceed the established safety guidelines.

What do independent experts and authorities say?

In its information leaflet about mobile telephones and base stations, WHO states that "no study has shown adverse health effects at exposure levels below international guidelines limits".