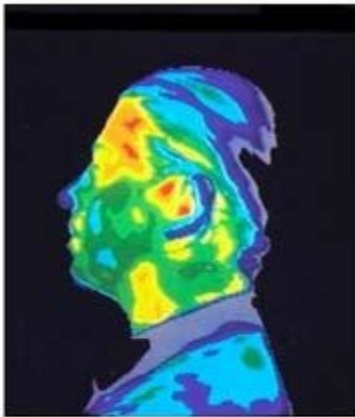
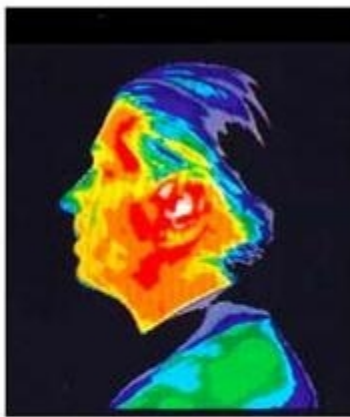


Cell Phone Radiation

[Note the heating effect on the frontal lobe]



Thermographic Image of the head with no exposure to harmful cell phone radiation.



Thermographic Image of the head after a 15-minute phone call. Yellow and red areas indicate thermal (heating) effects that can cause negative health effects.

By Basil_Zibdawi.

Cellular phones or mobile phones are used today for long periods of time, often with people unaware of the degree and impact mobile phone radiation has. Reports from various sources achieve different conclusions about damage to human health; some stating that no conclusive evidence is available while others establish a direct correlation between brain tumors and health conditions to extended exposure to mobile phone radiation. However, these are the facts about cellular phone radiation.

Cellular phones use radiowaves, wavelengths on the longer end of the electromagnetic spectrum, in the band of about 800 to 900 MHz (megahertz, [frequency]). Unfortunately, the human body is known to absorb the output radiation produced by cell phones in a measurement known as the Specific Absorption Rate (SAR). The SAR measures the amount of energy absorbed by the body from handset radiation. The energy absorbed by the body decreases with increases in distance as radiation is dissipated into the environment. The United States government regulates the maximum legal SAR for a handset to be 1.6 watts per kilogram. In the European Union, the maximum SAR is 2.0 watts per kilogram. The United States government measurement of SAR involves only testing the absorption of energy from talking on the phone and does not compensate the SAR for other radio waves from such sources as wifi,

bluetooth, etc. These add to increased energy output in from the radiowaves. In addition, smart phones in particular produce increased amounts of radiation due to their internal components.

Data exists that directly proves that exposure to radiation causes harm to cells, especially over long periods of time, in greater doses. Mutations, cancer, and even brain tumors have been a result of exposure to radiation with a more adverse or a quicker effect occurring at greater amounts of exposure.

It is important to remember that modern day phones generally produce less radiation than those of the late 1980s and that steps are being taken to attempt to lessen hazards associated with cellular communication.

Sources:

<http://reviews.cnet.com/cell-phone-radiation-levels/>

Study: Cellphones cause oxidative stress, may up cancer risk. UPI/David Silpa

Published: Aug. 6, 2013 at 12:47 AM

TEL AVIV, Israel, Aug. 6 (UPI) -- There is considerable oxidative stress on the tissue and glands close to a cellphone when in use and this may increase cancer risk, Israeli researchers say.

Dr. Yaniv Hamzany of Tel Aviv University's Sackler Faculty of Medicine and the Otolaryngology Head and Neck Surgery Department at the Rabin Medical Center looked for clues in the saliva of cellphone users.

Since the cellphone is placed close to the salivary gland when in use, he and fellow researchers Raphael Feinmesser, Thomas Shpitzer, Dr. Gideon Bahar and Rafi Nagler of Tel Aviv University and Dr. Moshe Gavish of the Technion in Haifa examined the saliva content of 20 heavy-user patients, defined as speaking on their phones for a minimum of 8 hours a month.

Most participants speak much more, Hamzany said, as much as 30-40 hours a month. Their salivary content was compared to that of a control group, which consisted of deaf patients who either do not use a cellphone or use the device exclusively for sending text messages and other non-verbal functions.

The study, published in the journal *Antioxidants and Redox Signaling*, found compared to the control group, the saliva of heavy users showed indications of higher oxidative stress -- a process that damages all aspects of a human cell, including DNA -- through the development of toxic peroxide and free radicals -- a major risk factor for cancer.

Although the study didn't uncover a conclusive "cause and effect" relationship between cellular phone use and cancer, the research adds to the building evidence cellphone use might be harmful in the long term, the researchers said.

Read more: http://www.upi.com/Health_News/2013/08/06/Study-Cellphones-cause-oxidative-stress-may-up-cancer-risk/UPI-40681375764470/#ixzz2bVjIMs26