

New study shows cell phones exceed FCC exposure limits by as much as double for children

October 17 2011

(Medical Xpress) -- A scholarly article on cell phone safety published online October 17, 2011, in the journal *Electromagnetic Biology and Medicine* reports the finding that cell phones used in the shirt or pants pocket exceed FCC exposure guidelines and that children absorb twice as much microwave radiation from phones as do adults.

The paper, titled “Exposure Limits: The underestimation of absorbed [cell phone](#) radiation, especially in children,” notes that the industry-designed process for evaluating [microwave radiation](#) from phones results in children absorbing twice the cellphone radiation to their heads, up to triple in their brain’s hippocampus and hypothalamus, greater absorption in their eyes, and as much as 10 times more in their bone marrow when compared to [adults](#).

The paper’s authors include three team members at Environmental Health Trust: Devra Davis, PhD, MPH, Founder and President; L. Lloyd Morgan, Senior Science Fellow; and Ronald B. Herberman, MD, Chairman of the Board.

The existing process is based on a large man whose 40 brain tissues are assumed to be exactly the same. A far better system relies on anatomically based models of people of various ages, including pregnant women, that can determine the absorbed radiation in all tissue types, and can account for the increased absorption in children. It allows for cell

phones to be certified with the most vulnerable users in mind—children—consistent with the “As Low As Reasonably Achievable” (ALARA) approach taken in setting standards for using radiological devices.

In the United States, the [FCC](#) determines maximum allowed exposures. Many countries, especially European Union members, use the “guidelines” of the International Commission on Non-Ionizing [Radiation Protection](#) (ICNIRP), a non-governmental agency.

More information: Research paper 'Exposure Limits: The underestimation of absorbed cell phone radiation, especially in children' online: informahealthcare.com/doi/abs/.../15368378.2011.622827

[Summary of the paper](#)

Provided by Environmental Health Trust

Citation: New study shows cell phones exceed FCC exposure limits by as much as double for children (2011, October 17) retrieved 11 May 2024 from <https://medicalxpress.com/news/2011-10-cell-fcc-exposure-limits-children.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--