

Increased brain cancer risk from constant mobile phone use in children

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Dear Editor, Mobile phone use has become nearly universal, with children increasingly exposed to prolonged daily usage. Unlike adults, children are more vulnerable to potential adverse effects of radiofrequency electromagnetic fields (RF-EMF) because of thinner skull bones, smaller head size, and developing neural tissues.¹

Emerging evidence suggests an association between long-term, heavy mobile phone use and an increased risk of brain tumours, particularly gliomas and acoustic neuromas.² Children and adolescents may be at even greater risk, as RF-EMF penetration is deeper relative to head size and cumulative lifetime exposure begins earlier.³ A multinational study has reported a higher incidence of brain tumours in younger age groups with frequent mobile use, raising significant public health concerns.⁴

In Pakistan, mobile phone access among children has rapidly expanded, yet awareness regarding its potential health hazards remains limited.

We recommend the following measures:

- Use speaker mode or wired earbuds to avoid holding phones to the ear.
- Avoid screen time before the age of two and limit use in young children.
- Do not sleep with phones near the head, especially under the pillow.⁵
- Turn on aeroplane mode when handing a device to a child.

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- Choose books, toys, and real-world play over screens.
- Encourage the use of tablets on tables, rather than on laps or stomachs.

Parents, schools, and healthcare providers must be informed of the risks and encouraged to promote safer practices. Addressing this issue through awareness campaigns and preventive strategies is critical to reducing the potential burden of brain cancers associated with early and prolonged mobile phone use.

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