

What Families Should Know About **CELL PHONES, CELL TOWERS, AND CHILDREN'S HEALTH**

Protecting Young Minds and Growing Bodies in a Wireless World



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Abstract

Children now grow up in a constant storm of wireless signals—from the phones in their hands to the towers rising over their schools—absorbing more RF-EMF than any generation before them. Emerging research shows measurable biological effects and potential impacts on sleep, attention, and learning, raising serious questions about how developing brains respond to this invisible environment. This paper gives families the clear truth: what the science shows, what risks remain uncertain, and the simple steps every household can take to protect children without giving up modern technology.

Why This Matters

Children today grow up surrounded by wireless devices and cell towers. Research shows that kids absorb **more radio-frequency energy (RF-EMF)** than adults because their skulls are thinner and their brains contain more water. ¹ **Footnote:** Children can absorb up to **twice as much** RF energy as adults.

This handout explains what parents need to know — and the simple steps that reduce exposure without fear or disruption.

What the Science Shows

1. Children's Bodies Absorb More RF Energy

Because of their anatomy and rapid development, children's brains and tissues take in more RF-EMF from phones and nearby towers.¹

2. Phones and Towers Can Affect Sleep and Focus

Studies show that RF-EMF exposure is linked to:

- **Sleep disruption** and reduced melatonin²
- **Attention and memory changes** in heavy phone users³
- **Headaches and concentration problems** in children near towers⁴

3. Effects Occur at Everyday Exposure Levels

Some studies report biological changes — such as oxidative stress and altered brain activity — at levels **below current U.S. safety limits**.⁵

What Parents Can Do (Simple, Practical Steps)

A. For Cell Phones

- **Use speaker mode** or wired earbuds

- **Keep phones out of pockets** — especially front pockets
- **Avoid phone use against the head**
- **Turn on Airplane Mode** when the phone is in a backpack or bedroom
- **Limit nighttime use** and keep devices off the pillow or nightstand

B. For Home and School

- Encourage kids to **text instead of call**
- Use **Wi-Fi calling** when possible (lower power than cellular)
- Keep routers **away from bedrooms**
- Ask schools about **tower proximity** and RF measurements

C. For Younger Children

- Avoid giving toddlers and preschoolers active wireless devices
- Download videos for offline use
- Use tablets in **Airplane Mode** whenever possible

What Parents Should Know About Cell Towers

1. Distance Matters

Children in schools near towers have been measured to receive **3× higher RF exposure** than those farther away.⁶

2. Some Studies Link Tower Exposure to Cognitive Effects

Research on students exposed for two years found:

- Slower **motor skills**
- Reduced **spatial memory**
- Attention difficulties⁷

3. Towers Are Not the Only Source

Phones, tablets, and Wi-Fi often contribute **more** to a child's total exposure than towers — which is why **home habits matter most**.

When to Be More Cautious

Extra caution is reasonable if your child:

- Has sleep problems

- Has headaches or attention issues
- Uses a phone daily
- Lives or attends school near a tower
- Keeps devices close to the body

These steps are **preventive**, not panic-driven.

What Parents Can Ask Schools

- “Is there a cell tower on or near campus?”
- “Has the district measured RF levels at the school?”
- “Are phones required to be in Airplane Mode during class?”
- “Are small-cell 5G antennas planned for school property?”

Schools often respond well when parents ask informed, calm questions.

Bottom Line for Families

You don’t need to eliminate technology — just **use it wisely**. Small changes make a big difference:

- **Distance is your friend**
- **Airplane Mode is powerful**
- **Nighttime is the most important time to unplug**

These steps protect children’s sleep, focus, and long-term health while keeping technology useful and accessible.

References

1. Christ et al., *Physics in Medicine & Biology*, 2010.
2. Carter et al., *Sleep Medicine*, 2016.
3. Foerster et al., *Environmental Health Perspectives*, 2018.
4. Abdel-Rassoul et al., *NeuroToxicology*, 2007.
5. Yakymenko et al., *Electromagnetic Biology and Medicine*, 2016.
6. Bhatt et al., *Environment International*, 2016.
7. Meo et al., *Electromagnetic Biology and Medicine*, 2015.

(Parent-Friendly, Evidence-Informed, Easy to Use)

1. Use Speaker Mode or Air Tube Headsets

Keeping the phone away from the head reduces exposure dramatically.¹

2. Don't Carry Phones in Pockets

Especially front pockets — distance matters for growing bodies.²

3. Turn On Airplane Mode When Not in Use

Perfect for backpacks, bedrooms, and long car rides.

4. Keep Devices Out of the Bedroom at Night

Improves sleep quality and reduces nighttime RF exposure.³

5. Text Instead of Call

Texting uses less power and keeps the device farther from the head.

6. Download Videos for Offline Use

Kids can watch without the device constantly transmitting.

7. Use Wi-Fi Calling When Possible

Wi-Fi typically uses lower power than cellular networks.

8. Keep Routers Away from Bedrooms

Place them in common areas, not where children sleep.

9. Limit Phone Use for Younger Children

Toddlers and preschoolers benefit most from low-exposure habits.

10. Ask Schools About Tower Proximity and RF Levels

Parents have the right to know about environmental exposures.⁴

Quick Parent Reminder

You don't need to remove technology — just **add distance**, **use Airplane Mode**, and **keep devices out of bedrooms**. Small changes make a big difference.

References

1. Croft et al., *Bioelectromagnetics*, 2010.
2. Christ et al., *Physics in Medicine & Biology*, 2010.
3. Carter et al., *Sleep Medicine*, 2016.
4. Bhatt et al., *Environment International*, 2016.